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Blueprint Medicines Corporation Index to Consolidated Financial Statements

As filed with the Securities and Exchange Commission on March 23, 2015

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Blueprint Medicines Corporation

(Exact name of registrant as specified in its charter)

Delaware	**2834**	**26-3632015**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

215 First Street
Cambridge, MA 02142
(617) 374-7580
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Jeffrey W. Albers
President and Chief Executive Officer
Blueprint Medicines Corporation
215 First Street
Cambridge, MA 02142
617-374-7580
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Kingsley L. Taft **Michael J. Minahan** **Laurie A. Burlingame** **Goodwin Procter LLP** **Exchange Place** **53 State Street** **Boston, MA 02109** **(617) 570-1000**	**Peter N. Handrinos** **Ryan K. deFord** **Latham & Watkins LLP** **John Hancock Tower** **200 Clarendon Street** **Boston, MA 02116** **(617) 948-6000**

Approximate date of commencement of proposed sale to public:
As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. o

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o	Accelerated filer o	Non-accelerated filer ☒ (Do not check if a	Smaller reporting company o

smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Proposed maximum aggregate initial public offering price(1)	Amount of registration fee(2)
Common stock, $0.001 par value	$100,000,000	$11,620

(1) Includes initial public offering price of shares that the underwriters have the option to purchase. Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) of the Securities Act of 1933, as amended.

(2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate initial public offering price.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to completion. Dated March 23, 2015.

Preliminary Prospectus

Shares

Blueprint Medicines Corporation

Common Stock

This is an initial public offering of shares of common stock of Blueprint Medicines Corporation. All of the shares of common stock are being sold by the company.

Prior to this offering, there has been no public market for the common stock. It is currently estimated that the initial public offering price per share will be between $ and $. Application has been made for the quotation of the common stock on The NASDAQ Global Market under the symbol "BPMC."

See "Risk Factors" on page 12 to read about factors you should consider before buying shares of the common stock.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	$	$
Underwriting discount	$	$
Proceeds, before expenses, to Blueprint Medicines Corporation	$	$

To the extent that the underwriters sell more than shares of common stock, the underwriters have the option to purchase up to an additional shares from Blueprint Medicines Corporation at the initial price to public less the underwriting discount.

The underwriters expect to deliver the shares against payment in New York, New York on , 2015.

Goldman, Sachs & Co. **Cowen and Company**

JMP Securities

Wedbush PacGrow

Prospectus dated , 2015.

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Prospectus

We have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

For investors outside of the United States: We have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our financial statements and the related notes included elsewhere in this prospectus. You should also consider, among other things, the matters described under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case appearing elsewhere in this prospectus. Unless otherwise stated, all references to "us," "our," "Blueprint," "Blueprint Medicines," "we," the "Company" and similar designations refer to Blueprint Medicines Corporation.

Blueprint Medicines Overview

We are a biopharmaceutical company focused on improving the lives of patients with genomically defined diseases driven by abnormal kinase activation. Our approach is to systematically and reproducibly identify kinases that are drivers of genomically defined diseases and to craft drug candidates with therapeutic windows that provide significant and durable clinical responses to patients. This integrated biology and chemistry approach enables us to drug known kinases that have been difficult to inhibit selectively and also identify, characterize and drug novel kinase targets. By focusing on genomically defined diseases, we believe that we will have a more efficient development path with a greater likelihood of success. Over the past three years, we have developed a robust small molecule drug pipeline in cancer and a rare genetic disease. One of our lead drug candidates is BLU-285, which targets KIT Exon 17 and PDGFRa D842V, abnormally active receptor tyrosine kinase mutants that are drivers of cancer and proliferative disorders. BLU-285 will initially be developed for patients with systemic mastocytosis, a myeloproliferative disorder of the mast cells, and defined subsets of patients with gastrointestinal stromal tumor, the most common sarcoma, or tumor of bone or connective tissue, of the gastrointestinal tract. Our other lead drug candidate is BLU-554, which targets FGFR4, a kinase that is aberrantly activated and is a driver of disease in a defined subset of patients with hepatocellular carcinoma, the most common type of liver cancer. Both drug candidates have demonstrated proof of concept in pre-clinical models and are expected to enter the clinic in mid-2015. We are also developing a drug candidate to target both RET, a receptor tyrosine kinase that can become abnormally activated when a portion of the gene that encodes RET is joined to part of another gene, and RET resistant mutants that we predict will arise from treatment with first generation therapies. We believe that our strategy will allow us to deliver transformative drugs to patients while building a fully-integrated biopharmaceutical company.

Our Focus — Highly Selective Kinase Drugs for Genomically Defined Diseases

Kinases are enzymes that function in many signaling pathways. Abnormal activation of kinases has been shown to drive several key activities of cancer cells, including growth, survival, metabolism, cell motility and angiogenesis. For many of the known kinases, there is a strong link between genetic alterations in a kinase and disease, including specific forms of cancer and rare genetic diseases. Approved kinase drugs, such as imatinib, have demonstrated significant benefit to patients, and small molecule kinase drugs achieved over $14 billion in 2013 sales. Despite this success, there is room for further improvement in kinase drug discovery and development. Many of the approved drugs are multi-kinase inhibitors that are not selective for disease drivers. This results in off-target toxicities that limit dose levels and target inhibition, thereby reducing efficacy. Further, patients who initially respond to a targeted kinase treatment often relapse due to the development of resistant mutants. Finally, as of 2014, kinase drugs approved by the U.S. Food and Drug Administration, or FDA, target less than five percent of the 518 kinases that constitute the kinome. In addition, the function of the majority of the kinome is unknown. Taken together, this represents a

substantial opportunity for developing novel and transformative drugs for cancer, rare genetic diseases and other disease areas.

Our Approach and Platform

Our approach is to systematically and reproducibly identify kinases that are drivers of genomically defined diseases and to craft drug candidates with therapeutic windows that provide significant and durable clinical responses to patients.

To capitalize on the kinase opportunity, we built a platform that integrates a novel target discovery engine and a proprietary compound library. Ou novel target discovery engine, which was developed entirely in-house under the direction of our chief scientific officer, combines our expertise in genomics, bioinformatics, and cell and structural biology to provide new insights into the biology of kinases as drivers of disease. To develop kinase drugs, we start by interrogating our proprietary compound library. Our library is a unique collection of novel small molecules rationally designed and developed entirely in-house by Blueprint Medicines' scientists as kinase inhibitors and enriched for drug-like properties. We do not owe royalties or other fees to any parties associated with our novel target discovery engine and our proprietary compound library. Another aspect of our platform is predicting resistance mutations. While treatment of patients with genomically-defined cancers with a targeted therapy typically results in a significant anti-tumor response, frequently the response is not durable due to mutations that arise in response to therapy. Through our structural and cell biology expertise, we predict mutations in kinases that render the enzyme insensitive to inhibition by an approved drug or compound in development. We have used this process of predicting resistance to inform the design of several of our next generation drugs. Using this platform, we have produced a drug pipeline of several promising drug candidates that target genomically-defined patient subsets.

As we advance our drug candidates through clinical development, we will enrich our Phase 1 trials by selecting patients most likely to respond to our drug candidates to confirm mechanistic and clinical proof of concept. We are collaborating with corporate partners to create companion diagnostics and to develop assays to measure target engagement, which is confirmation that a drug binds to its intended protein target *in vivo*, and early response We expect these approaches to enable early determination of efficacy, allowing for clear decision points in clinical trials.

Our Development Programs

We have leveraged our platform to develop a robust drug pipeline of orally available, potent and selective small molecule kinase inhibitors that target genomic drivers in several cancers and a rare genetic disease. We currently own worldwide commercial rights to all of our oncology-focused drug candidates, and have a rare genetic disease program that is the subject of our collaboration

with Alexion Pharma Holding, or Alexion. Our most advanced drug candidates are summarized in the table below.

Drug Candidates	Genomic Drivers	Initial Diseases	Stage of Development	Commercial Rights
BLU-285 (KIT Exon 17 inhibitor)	KIT D816V	SM	IND-enabling activities	Blueprint Medicines
	PDGFRa D842V	GIST	IND-enabling activities	
	KIT Exon 17 mutants	GIST	IND-enabling activities	
BLU-554 (FGFR4 inhibitor)	Aberrant FGFR4 signaling	HCC	IND-enabling activities	Blueprint Medicines
RET fusions and predicted RET resistant mutants	RET fusions*	Non-small cell lung cancer Other solid tumors	Lead optimization	Blueprint Medicines
Rare genetic disease target	Undisclosed	Rare genetic disease	Undisclosed	Alexion

* A fusion protein is encoded by a fusion gene, which is a gene in which a portion of one gene is joined to part of another gene. In the case of RET, a portion of the RET gene tha encodes the kinase domain is joined to part of another gene. RET fusion proteins are always active and are thought to be drivers in several cancers.

KIT Inhibitor Program

BLU-285 is an orally available, potent and selective inhibitor of several activating mutations of KIT that occur in Exon 17, which encodes a portio of the tyrosine kinase domain. BLU-285 also potently and selectively inhibits PDGFRa D842V. Due to the high degree of structural similarity of the kinase domains of KIT and PDGFRa, BLU-285 is able to inhibit both KIT Exon 17 mutants and the PDGFRa D842V mutant with minimal inhibition of other kinases. BLU-285 is a highly targeted therapeutic candidate for genomically-selected patients with diseases driven by these mutations, including systemic mastocytosis, or SM, and genomically-defined patient subsets within gastrointestinal stromal tumor, or GIST, which are KIT and PDGFRa mediated diseases.

Imatinib, which is an inhibitor of KIT, is approved in SM and GIST and validates this kinase as a therapeutic target in these diseases. Imatinib also inhibits PDGFRa, which is a driver of disease in a subset of GIST. However, a meaningful percentage of patients harbor mutations in KIT and PDGFRa that are not targeted by imatinib and fail to respond to treatment with the drug. We plan to initially develop BLU-285 for targeted patient populations that harbor these mutations and currently lack adequate treatments.

For SM, we demonstrated significant anti-tumor efficacy of BLU-285 in a mouse xenograft model with a mastocytoma, or mast cell tumor driven by a KIT Exon 17 mutation. For GIST, we also demonstrated significant anti-tumor efficacy with BLU-285 in an imatinib resistant patient-derived xenograft model with a KIT Exon 17 resistance mutation, which is a model believed to be highly predictive of clinical response. We are completing the 28-day Good Laboratory Practice, or GLP, toxicology studies, which are expected to identify the dose limiting toxicity and anticipated first-in-human dose for BLU-285.

We plan to file two INDs for BLU-285, one in SM and one in GIST, in mid-2015. Our Phase 1 clinical trials in these indications will test the safety and tolerability of BLU-285 in multiple ascending doses with the goal of establishing a maximum tolerated dose, or MTD, or a recommended dose if the MTD is not achieved. All patients in the SM trial will be tested retrospectively for KIT D816V mutational status. Patients in the GIST trial will be tested retrospectively for both KIT Exon 17 mutations and PDGFRa D842V. Once the MTD is reached, or a recommended dose is established, we will open expansion cohorts with genomically-selected patients.

FGFR4 Inhibitor Program

BLU-554 is an orally available, potent, selective and irreversible inhibitor of the kinase FGFR4. FGFR4 has historically been a challenging target to drug selectively given the closely related paralogs, proteins encoded by closely related genes, namely FGFR1-3. Aberrantly active FGFR4 signaling is a driver of disease in a subset of patients with hepatocellular carcinoma, or HCC, a disease with high unmet need and no approved genomically-targeted therapies. We plan to initially develop BLU-554 for a genomically-defined patient population within HCC with aberrantly active FGFR4 signaling.

BLU-554 has shown proof of concept in several different pre-clinical models of HCC with aberrantly active FGFR4 signaling. The administration of BLU-554 in an HCC cell-line xenograft model resulted in robust dose-dependent tumor growth inhibition. At the highest dose, BLU-554 was well-tolerated and induced complete remission in a subset of mice for at least 30 days after cessation of treatment. Further, in a patient-derived HCC xenograft model, which we believe to be highly predictive of clinical response, treatment with BLU-554 led to dose-dependent tumor growth inhibition. We are completing the 28-day GLP toxicology studies, which are expected to identify the dose limiting toxicity and anticipated first-in-human dose for BLU-554.

IND-enabling studies are nearly completed, and we anticipate our Phase 1 clinical trial will start in mid-2015. Our Phase 1 clinical trial in patients with HCC will test the safety and tolerability of BLU-554 in multiple ascending doses with the goal of establishing an MTD or a recommended dose if th MTD is not achieved. Once the MTD is reached, or a recommended dose is established, we will open expansion cohorts with genomically-selected patients.

RET Fusion Program

Our third program targets RET fusions and predicted RET resistant mutants. By using our proprietary compound library, we have crafted drug candidates to selectively inhibit not only RET but also the RET resistant mutants. We believe we can provide a treatment that results in a more meaningful and durable clinical response by prospectively inhibiting RET and RET resistant mutants early in the treatment of the disease. Our researc suggests that RET is a driver of disease in a broad set of cancers including non-small cell lung cancer, and cancers of the thyroid, colon and breast.

Our Team

To execute on this opportunity, we assembled an experienced management team, board of directors and scientific founders who bring extensive industry experience to our company. Our management team has broad capabilities and successful track records in oncology and rare genetic diseases through previous experience at Algeta ASA, Genzyme Corporation, Millennium Pharmaceuticals, Inc., Novartis AG and Sanofi S.A. We were founded by an internationally-recognized scientific team, including Brian Druker, Nicholas Lydon and Charles Sawyers, who led the discovery and development of imatinib. The approval of imatinib revolutionized the treatment of chronic myelogenous leukemia by converting it from an aggressive and deadly cancer to a chronic, manageable disease. Our vision is to emulate the success of imatinib in a reproducible way by leveraging our platform to transforr the lives of patients while building a fully-integrated biopharmaceutical company.

Our initial investors included funds managed by Fidelity Biosciences and Third Rock Ventures. Additional blue chip investors participated in our Series B and C financings, including funds managed by (listed alphabetically) Biotechnology Value Fund, Casdin Capital, Cowen Investments, Nextech Invest, Partner Fund Management, Perceptive Advisors, RA Capital Management, Redmile Group, Sabby Capital, and Tavistock Life Sciences.

Our Mission

Blueprint Medicines makes kinase drugs to treat patients with genomically defined diseases. Led by a team of industry innovators, Blueprint Medicines integrates a novel target discovery engine and proprietary compound library to understand the genetic blueprint of cancer and to craft highly selective therapies. This empowers Blueprint Medicines to rapidly develop patient-defined drug candidates aimed at eradicating cancer and other genomically defined diseases.

Our Principles

We maintain a culture of high integrity that embraces the following guiding principles to provide long-term benefits to patients and our stakeholders:

- ***Patients First —*** Maintaining intense focus on improving patients' lives.
- ***Thoughtfulness —*** Exploring creative approaches by daring to make well-thought-out decisions and owning the outcomes.
- ***Trust —*** Through collaboration and cooperation, building and maintaining a cohesive team that has mutual respect of different viewpoints, opinions and talents.
- ***Optimism —*** Pursuing transformative therapies that we believe will make a difference.
- ***Urgency —*** Solving complex problems rapidly, with attention and care.

Our Strategy

Our strategy was created to enable us to achieve our mission. The key tenants of our strategy include the following:

- ***Rapidly advance our lead drug candidates, BLU-285 and BLU-554, through clinical development.***
- ***Build a pipeline of kinase drugs for genomically-defined drivers of disease.***
- ***Continuously invest in our proprietary platform to ensure future growth.***
- ***Maintain the Blueprint culture as we grow our business.***
- ***Evaluate strategic collaborations to maximize value.***

Risks Associated With Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the "Risk Factors" section of this prospectus immediately following this prospectus summary. These risks include the following:

- We have incurred significant operating losses since our inception and anticipate that we will incur continued losses for the foreseeable future.
- Even if we consummate this offering, we will need to raise substantial additional funding. If we are unable to raise capital when needed, we would be forced to delay, reduce or eliminate some of our drug development programs or commercialization efforts.
- We are very early in our development efforts. All of our lead drug candidates are still in pre-clinical development. If we are unable to advance our drug candidates to clinical development, obtain regulatory approval and ultimately commercialize our drug candidates or experience significant delays in doing so, our business will be materially harmed.

- Our approach to the discovery and development of drug candidates that inhibit kinases is unproven, and we do not know whether we wil be able to develop any drugs of commercial value.
- Genomically defined diseases may have relatively low prevalence and it may be difficult to identify patients with the genomic driver of the disease, which may lead to delays in enrollment for our trials.
- If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.
- If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals both for our drug candidates and for the related companion diagnostics, we will not be able to commercialize, or will be delayed in commercializing, our product candidates, and our ability to generate revenue will be materially impaired.
- Our drug candidates may cause undesirable side effects that could delay or prevent their regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if any.
- The incidence and prevalence for target patient populations of our drug candidates have not been established with precision. If the market opportunities for our drug candidates are smaller than we estimate or if any approval that we obtain is based on a narrower definition of the patient population, our revenue and ability to achieve profitability will be adversely affected, possibly materially.
- We expect to rely on third parties to conduct our clinical trials for our drug candidates. If these third parties do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our drug candidates and our business could be substantially harmed.
- If we are unable to adequately protect our proprietary technology or obtain and maintain patent protection for our technology and drugs c if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and drugs similar or identical to ours, and our ability to successfully commercialize our technology and drugs may be impaired.

Implications of Being an Emerging Growth Company

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and, for as long as we continue to be an "emerging growth company," we are permitted to, and intend to, rely on exemptions from certain disclosure requirements. In particular, we have provided only two years of audited financial statements and we have not included all of the executive compensation related information that would be required in this prospectus if we were not an emerging growth company. In addition, the JOBS Act provides that an "emergin growth company" can take advantage of an extended transition period for complying with new or revised accounting standards, delaying the adoption of these accounting standards until they would apply to private companies. However, we are electing not to take advantage of such extended transitior period, and as a result we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies. Section 107 of the JOBS Act provides that our decision to not take advantage of the extended transition period fo complying with new or revised accounting standards is irrevocable. We could be an "emerging growth company" for up to five years from completion o our initial public offering, or until the earliest of (i) the last day of the first fiscal year in

which our annual gross revenues exceed $1 billion, (ii) the date that we become a "large accelerated filer" as defined in Rule 12b-2 under the Securitie Exchange Act of 1934, as amended, or the Exchange Act, which would occur if the market value of our common stock that is held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter, or (iii) the date on which we have issued more than $1 billion in non-convertible debt during the preceding three-year period.

Corporate History and Information

We were incorporated in Delaware in October 2008 under the name ImmunoCo, Inc. In May 2010, we changed our name to Hoyle Pharmaceuticals, Inc., and in June 2011, we changed our name again to Blueprint Medicines Corporation. Our principal executive offices are located a 215 First Street, Cambridge, Massachusetts 02142, and our telephone number is (617) 374-7580. Our website address is http://www.blueprintmedicines.com. The information contained in, or that can be accessed through, our website is not part of this prospectus.

We are filing various U.S. federal trademark registrations and applications, and we own unregistered trademarks and servicemarks, including BLUEPRINT MEDICINES and our corporate logo. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus may be referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. This prospectus also includes other trademarks of other persons.

THE OFFERING

Common stock offered by us	shares
Common stock to be outstanding after this offering	shares
Option to purchase additional shares	The underwriters have an option for a period of 30 days to purchase up to additional shares of our common stock.
Use of proceeds	We estimate that we will receive net proceeds of approximately $ million from the sale of the shares of common stock offered in this offering, or approximately $ million if the underwriters exercise their over-allotment option in full, based on an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering as follows: approximately $ to fund our Phase 1 clinical trials of BLU-285 in SM and GIST; approximately $ to fund our Phase 1 clinical trial of BLU-554 in HCC, in each case, including drug manufacturing, companion diagnostic development and internal personnel costs; approximately $ to fund new and ongoing research activities including for our RET program; and the balance for working capital and other general corporate purposes. See "Use of Proceeds" for additional information.
Risk factors	You should read carefully the "Risk Factors" beginning on page 12 and other information included in this prospectus for a discussion of factors that you should consider before deciding to invest in shares of our common stock.
Proposed NASDAQ Global Market symbol	"BPMC."

The number of shares of common stock to be outstanding after this offering is based on 12,202,752 shares of common stock outstanding as of December 31, 2014, including 2,339,042 shares of unvested restricted stock subject to repurchase by us and 916,490 stock options that were exercised prior to vesting and assuming conversion of all of our outstanding shares of convertible preferred stock upon closing of this offering.

The number of shares of our common stock to be outstanding after this offering excludes the following:

- 7,344,277 shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2014 having a weighted average exercise price of $0.37 per share;
- 233,333 shares of common stock issuable upon the exercise of outstanding warrants as of December 31, 2014 having a weighted-average exercise price of $1.07 per share;

- 1,504,637 shares of common stock available for future issuance under our 2011 Stock Option and Grant Plan, or 2011 Stock Option Plan, as of December 31, 2014;
- shares of common stock reserved for future issuance under our 2015 Stock Option and Incentive Plan, or 2015 Stock Option Plan, which will become effective upon the completion of this offering; and
- shares of common stock reserved for future issuance under our 2015 Employee Stock Purchase Plan, or 2015 ESPP, which will become effective upon the completion of this offering.

Except as otherwise indicated, all information contained in this prospectus assumes or gives effect to:

- the automatic conversion of all of our outstanding shares of convertible preferred stock into an aggregate of 85,071,252 shares of common stock upon the completion of this offering;
- no exercise of the outstanding options or warrants described above after December 31, 2014;
- no exercise by the underwriters of their option purchase up to an additional shares of our common stock in this offering;
- the adoption of our amended and restated certificate of incorporation and amended and restated by-laws, both of which we will file immediately prior to the completion of this offering; and
- a one-for- reverse stock split of our common stock, which will become effective prior to the effectiveness of the registration statement of which this prospectus forms a part.

SUMMARY FINANCIAL DATA

You should read the following summary financial data together with our financial statements and the related notes appearing at the end of this prospectus and the "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of this prospectus. We have derived the statement of operations data for the years ended December 31, 2013 and 2014 and the balance sheet data as of December 31, 2014 from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of results that should be expected in the future.

	Year Ended December 31,	
	2013	2014
	(in thousands, except per share data)	
Statements of Operations Data:		
Operating expenses:		
Research and development	$ 15,928	$ 31,844
General and administrative	5,072	7,890
Total operating expenses	21,000	39,734
Other income (expense):		
Other income (expense), net	226	(98)
Interest and other expense	(138)	(453)
Total other income (expense)	88	(551)
Net loss	$ (20,912)	$ (40,285)
Convertible preferred stock dividends	(2,870)	(5,765)
Net loss applicable to common stockholders	$ (23,782)	$ (46,050)
Net loss per share applicable to common stockholders — basic and diluted(1)	$ (4.26)	$ (5.89)
Weighted-average number of common shares used in net loss per share applicable to common stockholders — basic and diluted(1)	5,582	7,815
Pro forma net loss per share applicable to common stockholders — basic and diluted (unaudited)		$ (0.56)
Pro forma weighted average number of common shares used in net loss per share applicable to common stockholders — basic and diluted (unaudited)		71,962

	As of December 31, 2014		
	Actual	Pro forma(2)	Pro forma as adjusted(3)(4)(5)
	(in thousands)		
Balance Sheet Data:			
Cash and cash equivalents	$ 47,240	$ 47,240	$
Working capital(6)	41,510	41,510	
Total assets	49,925	49,925	
Term loan payable, net of current portion	7,338	7,338	
Warrant liability	365	—	
Convertible preferred stock	114,811	—	
Total stockholders' (deficit) equity	(79,382)	35,794	

(1) See Note 2 to the notes to our financial statements appearing elsewhere in this prospectus for further details on the calculation of basic and diluted net loss per share and pro forma basic and diluted net loss per share applicable to common stockholders.

(2) Pro forma balance sheet data give effect to the automatic conversion of all outstanding shares of our convertible preferre stock into an aggregate of 85,071,252 shares of our common stock and the conversion of our preferred stock warrants into warrants to purchase 233,333 shares of our common stock upon the completion of this offering.

(3) Pro forma as adjusted to reflect the pro forma adjustments described in (2) above, and to further reflect the sale of share of our common stock offered in this offering, assuming an initial public offering price of $ per share, the midpoint o the estimated price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(4) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjuste amount of each of cash and cash equivalents, working capital, total assets and total stockholders' (deficit) equity by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(5) A 1,000,000 share increase in the number of shares offered by us together with a concomitant $1.00 increase in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase the pro forma as adjusted amount of each of cash and cash equivalents, and total stockholders' (deficit) equity by approximately $ million, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(6) We define working capital as current assets less current liabilities.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risks and uncertainties, together with all other information in this prospectus, including our financial statements and related notes, before investing in our common stock. Any of the risk factors we describe below could adversely affect our business, financial condition or results of operations. The market price of our common stock could decline if one or more of these risks or uncertainties actually occur, causing you to lose all or part of the money you paid to buy our common stock. Additional risks that we currently do not know about or that we currently believe to be immaterial may also impair our business. Certain statements below are forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements" in this prospectus.

Risks Related to Our Financial Position and Need for Additional Capital

We are a biopharmaceutical company with a limited operating history and have not generated any revenue from drug sales. We have incurred significant operating losses since our inception and anticipate that we will incur continued losses for the foreseeable future.

We are a biopharmaceutical company with a limited operating history on which to base your investment decision. Biopharmaceutical drug development is a highly speculative undertaking and involves a substantial degree of risk. We commenced operations in April 2011. Our operations to date have been limited primarily to organizing and staffing our company, business planning, raising capital, developing our technology, identifying potential drug candidates and undertaking pre-clinical studies of our most advanced drug candidates. We have only recently identified lead drug candidates for two of our programs. We have never generated any revenue from drug sales. We have not obtained regulatory approvals for any of our drug candidates.

We have not yet demonstrated our ability to initiate or successfully complete any clinical trials, including large-scale, pivotal clinical trials, obtain regulatory approvals, manufacture a commercial scale drug, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful commercialization. Typically, it takes many years to develop one new drug from the time it is discovered to when it is available for treating patients. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history. In addition, as a new business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to transition from a company with a research focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

Since inception, we have focused substantially all of our efforts and financial resources on developing our proprietary compound library, novel target discovery engine and initial drug candidates. We have funded our operations to date through proceeds from sales of convertible preferred stock and, to a lesser extent, through a loan and security agreement, or Loan and Security Agreement, that we entered into with Silicon Valley Bank in May 2013. From our inception through December 31, 2014, we had raised an aggregate of $125.1 million of gross proceeds from such transactions. As of December 31, 2014, our cash and cash equivalents and investments were $47.2 million. We have incurred net losses in each year since our inception, and we had an accumulated deficit of $82.2 million as of December 31, 2014. Our net losses were $20.9 million and $40.3 million for the years ended December 31, 2013 and 2014, respectively. Substantially all of our operating losses have resulted from costs incurred in connection with our research and development programs and from general and administrative costs associated with our operations. We expect to continue to incur significant expenses and operating losses over the next several years and for the foreseeable future. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders' deficit and working capital. We

expect our research and development expenses to significantly increase in connection with beginning clinical trials of our drug candidates. In addition, if we obtain marketing approval for our drug candidates, we will incur significant sales, marketing and outsourced-manufacturing expenses. Once we are a public company, we will incur additional costs associated with operating as a public company. As a result, we expect to continue to incur significant and increasing operating losses for the foreseeable future. Because of the numerous risks and uncertainties associated with developing pharmaceutical drugs, we are unable to predict the extent of any future losses or when we will become profitable, if at all. Even if we do become profitable, we may not be able to sustain or increase our profitability on a quarterly or annual basis.

Our ability to become profitable depends upon our ability to generate revenue. To date, we have not generated any revenue from our lead drug candidates, BLU-285 and BLU-554, and we do not know and do not expect to generate any revenue from the sale of drugs in the near future. We do not expect to generate significant revenue unless and until we obtain marketing approval of, and begin to sell, BLU-285, BLU-554 or one of our other drug candidates. Our ability to generate revenue depends on a number of factors, including, but not limited to, our ability to:

- initiate and successfully complete clinical trials that meet their clinical endpoints;
- initiate and successfully complete all safety studies required to obtain U.S. and foreign marketing approval for our drug candidates;
- commercialize our drug candidates, if approved, by developing a sales force or entering into additional collaborations with third parties; and
- achieve market acceptance of our drug candidates in the medical community and with third-party payors.

We expect to incur significant sales and marketing costs as we prepare to commercialize our drug candidates. Even if we initiate and successfully complete pivotal clinical trials of our drug candidates, and our drug candidates are approved for commercial sale, and despite expending these costs, our drug candidates may not be commercially successful. We may not achieve profitability soon after generating drug sales, if ever. If we are unable to generate drug revenue, we will not become profitable and may be unable to continue operations without continued funding.

Even if we consummate this offering, we will need to raise substantial additional funding. If we are unable to raise capital when needed, we would be forced to delay, reduce or eliminate some of our drug development programs or commercialization efforts.

The development of pharmaceutical drugs is capital-intensive. We are currently advancing our drug candidates through pre-clinical development and anticipate beginning clinical trials for our lead drug candidates, BLU-285 and BLU-554, in mid-2015. We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development of, initiate clinical trials of, and seek marketing approval for, our drug candidates. In addition, depending on the status of regulatory approval or, if we obtain marketing approval for any of our drug candidates, we expect to incur significant commercialization expenses related to drug sales, marketing, manufacturing and distribution to the extent that such sales, marketing and distribution are not the responsibility of Alexion Pharma Holding, or Alexion, or other collaborators. We may also need to raise additional funds sooner if we choose to pursue additional indications and/or geographies for our drug candidates or otherwise expand more rapidly than we presently anticipate. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital

when needed or on attractive terms, we would be forced to delay, reduce or eliminate certain of our research and development programs or future commercialization efforts.

We expect that the net proceeds from this offering, together with our existing cash and cash equivalents, including the $15.0 million upfront payment received in March 2015 upon execution of the agreement with Alexion, will be sufficient to fund our operations through at least the end of 2016. Our future capital requirements will depend on and could increase significantly as a result of many factors, including:

- the scope, progress, results and costs of drug discovery, pre-clinical development, laboratory testing and clinical trials for our drug candidates;
- the scope, prioritization and number of our research and development programs;
- the success of our collaboration with Alexion;
- the costs, timing and outcome of regulatory review of our drug candidates;
- our ability to establish and maintain additional collaborations on favorable terms, if at all;
- the achievement of milestones or occurrence of other developments that trigger payments under any additional collaboration agreements we obtain;
- the extent to which we are obligated to reimburse, or entitled to reimbursement of, clinical trial costs under future collaboration agreements, if any;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the extent to which we acquire or in-license other drug candidates and technologies.
- the costs of securing manufacturing arrangements for commercial production; and
- the costs of establishing or contracting for sales and marketing capabilities if we obtain regulatory clearances to market our drug candidates.

Identifying potential drug candidates and conducting pre-clinical development testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve drug sales. In addition, our drug candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of drugs that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives.

Any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our drug candidates. Dislocations in the financial markets have generally made equity and debt financing more difficult to obtain, and may have a material adverse effect on our ability to meet our fundraising needs. We cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. Moreover, the terms of any financing may adversely affect the holdings or the rights of our stockholders and the issuance of additional securities, whether equity or debt, by us, or the possibility of such issuance, may cause the market price of our shares to decline. The sale of additional equity or convertible securities would dilute all of our stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and we may be required to agree to certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. We could also be required to seek funds through arrangements with collaborators or otherwise at an earlier stage than otherwise

would be desirable and we may be required to relinquish rights to some of our technologies or drug candidates or otherwise agree to terms unfavorable to us, any of which may have a material adverse effect on our business, operating results and prospects.

If we are unable to obtain funding on a timely basis, we may be required to significantly curtail, delay or discontinue one or more of our research or development programs or the commercialization of any drug candidate or be unable to expand our operations or otherwise capitalize on our business opportunities, as desired, which could materially affect our business, financial condition and results of operations.

Raising additional capital may cause dilution to our stockholders, including purchasers of common stock in this offering, restrict our operations or require us to relinquish rights to our technologies or drug candidates.

Until such time, if ever, as we can generate substantial drug revenues, we expect to finance our cash needs through a combination of private and public equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds, other than our collaboration with Alexion, which is limited in scope and duration, and funds already borrowed under the Loan and Security Agreement. To the extent that we raise additional capital through the sale of common stock or securities convertible or exchangeable into common stock, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that materially adversely affect your rights as a common stockholder. Debt financing, if available, would increase our fixed payment obligations and may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise funds through additional collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our intellectual property, future revenue streams, research programs or drug candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our drug development or future commercialization efforts or grant rights to develop and market drug candidates that we would otherwise prefer to develop and market ourselves.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

You will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase in this offering. Assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, purchasers of common stock in this offering will experience immediate dilution of $ per share in net tangible book value of the common stock. In addition, investors purchasing common stock in this offering will contribute % of the total amount invested by stockholders since inception but will only own % of the shares of common stock outstanding. In the past, we issued options and other securities to acquire common stock at prices significantly below the initial public offering price. To the extent these outstanding securities are ultimately exercised, investors purchasing common stock in this offering will sustain further dilution. See "Dilution" for a more detailed description of the dilution to new investors in the offering.

Risks Related to Drug Development and Regulatory Approval

We are very early in our development efforts. All of our lead drug candidates are still in pre-clinical development. If we are unable to advance our drug candidates to clinical development, obtain regulatory approval and ultimately commercialize our drug candidates or experience significant delays in doing so, our business will be materially harmed.

We are very early in our development efforts, and all of our lead drug candidates are still in pre-clinical development. We have only recently identified lead drug candidates for two of our programs. We have invested substantially all of our efforts and financial resources in the identification and pre-clinical development of kinase inhibitors, including the development of our lead drug candidates, BLU-285 and BLU-554. Our ability to generate drug revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our drug candidates, which may never occur. We currently generate no revenues from sales of any drugs, and we may never be able to develop or commercialize a marketable drug. Each of our drug candidates will require additional pre-clinical and clinical development, management of clinical, pre-clinical and manufacturing activities, regulatory approval in multiple jurisdictions, obtaining manufacturing supply, building of a commercial organization, substantial investment and significant marketing efforts before we generate any revenues from drug sales. In addition, our drug development programs contemplate the development of companion diagnostics, which are assays or tests to identify an appropriate patient population. Companion diagnostics are subject to regulation as medical devices and must themselves be approved for marketing by the U.S. Food and Drug Administration, or FDA, or certain other foreign regulatory agencies before we may commercialize our drug candidates. The success of our drug candidates will depend on several factors, including the following:

- successful completion of pre-clinical studies;
- approval of Investigational New Drug applications for our planned clinical trials or future clinical trials;
- successful enrollment in, and completion of, clinical trials;
- successful development of companion diagnostics for use with our drug candidates;
- receipt of regulatory approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers for clinical supply and commercial manufacturing;
- obtaining and maintaining patent and trade secret protection or regulatory exclusivity for our drug candidates;
- launching commercial sales of our drug candidates, if and when approved, whether alone or in collaboration with others;
- acceptance of the drug candidates, if and when approved, by patients, the medical community and third party payors;
- effectively competing with other therapies;
- obtaining and maintaining healthcare coverage and adequate reimbursement;
- enforcing and defending intellectual property rights and claims; and
- maintaining a continued acceptable safety profile of the drug candidates following approval.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our drug candidates,

which would materially harm our business. If we do not receive regulatory approvals for our drug candidates, we may not be able to continue our operations.

Our approach to the discovery and development of drug candidates that inhibit kinases is unproven, and we do not know whether we will be able to develop any drugs of commercial value.

Our scientific approach focuses on using our novel target discovery engine and our proprietary compound library to identify new kinase targets in disease indications. Our focus on using our novel target discovery engine to identify potential kinase targets in disease indications may not result in the discovery and development of commercially viable drugs for these diseases. The use of our proprietary compound library may not lead to the development of commercially viable drugs. Even if we are able to develop a drug candidate that successfully targets these kinases in pre-clinical studies, we may not succeed in demonstrating safety and efficacy of the drug candidate in clinical trials.

Clinical drug development involves a lengthy and expensive process, with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our drug candidates.

All of our lead drug candidates are in pre-clinical development and their risk of failure is high. It is impossible to predict when or if any of our drug candidates will prove effective and safe in humans or will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any drug candidate, we must complete pre-clinical studies and then conduct extensive clinical trials to demonstrate the safety and efficacy of our drug candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. The outcome of pre-clinical development testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, pre-clinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their drug candidates performed satisfactorily in pre-clinical studies and clinical trials have nonetheless failed to obtain marketing approval of their product candidates. Our pre-clinical studies and future clinical trials may not be successful.

We plan to commence a Phase 1 clinical trial of BLU-285 as a treatment for systemic mastocytosis, or SM, a Phase 1 clinical trial of BLU-285 as a treatment for gastrointestinal stromal tumor, or GIST, and a Phase 1 clinical trial of BLU-554 as a treatment for hepatocellular carcinoma, or HCC. Commencing each of these clinical trials is subject to finalizing the trial design based on ongoing discussions with the FDA and other regulatory authorities. Despite the guidance received from, and to be received from, these regulatory authorities, the FDA or other regulatory authorities could change their position on the acceptability of our trial designs or the clinical endpoints selected, which may require us to complete additional clinical trials or impose stricter approval conditions than we currently expect. Successful completion of our clinical trials is a prerequisite to submitting a new drug application, or NDA, to the FDA and a Marketing Authorization Application, or MAA, in Europe for each drug candidate and, consequently, the ultimate approval and commercial marketing of BLU-285, BLU-554 and our other drug candidates. We do not know whether any of our clinical trials will begin or be completed on schedule, if at all.

We may experience delays in completing our pre-clinical studies and initiating or completing clinical trials, and we may experience numerous unforeseen events during, or as a result of, any

future clinical trials that we could conduct that could delay or prevent our ability to receive marketing approval or commercialize our drug candidates, including:

- regulators or institutional review boards, or IRBs, or ethics committees may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching, or fail to reach, agreement on acceptable terms with prospective trial sites and prospective contract research organizations, or CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- clinical trials of our drug candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional pre-clinical studies or clinical trials or we may decide to abandon drug development programs;
- the number of patients required for clinical trials of our drug candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials or fail to return for post-treatment follow-up at a higher rate than we anticipate;
- our third party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all, or may deviate from the clinical trial protocol or drop out of the trial, which may require that we add new clinical trial sites or investigators;
- we may elect to, or regulators or IRBs or ethics committees may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of our drug candidates may be greater than we anticipate;
- the supply or quality of our drug candidates or other materials necessary to conduct clinical trials of our drug candidates may be insufficient or inadequate; and
- our drug candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators or IRBs or ethics committees to suspend or terminate the trials, or reports may arise from pre-clinical or clinical testing of other cancer therapies that raise safety or efficacy concerns about our drug candidates.

We could encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted, by the Data Safety Monitoring Board, or DSMB, for such trial or by the FDA or other regulatory authorities. Such authorities may impose such a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our drug candidates. Further, the FDA may disagree with our clinical trial design and our interpretation of data from clinical trials, or may change the requirements for approval even after it has reviewed and commented on the design for our clinical trials.

If we are required to conduct additional clinical trials or other testing of our drug candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our drug candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for our drug candidates;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- be subject to post-marketing testing requirements; or
- have the drug removed from the market after obtaining marketing approval.

Our drug development costs will also increase if we experience delays in testing or regulatory approvals. We do not know whether any of our clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant pre-clinical study or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our drug candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our drug candidates and may harm our business and results of operations. Any delays in our pre-clinical or future clinical development programs may harm our business, financial condition and prospects significantly.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our drug candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. In particular, because we are focused on patients with genomically defined diseases, our ability to enroll eligible patients may be limited or may result in slower enrollment than we anticipate. In addition, some of our competitors have ongoing clinical trials for drug candidates that treat the same indications as our drug candidates, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' drug candidates.

Patient enrollment may be affected by other factors including:

- the severity of the disease under investigation;
- the eligibility criteria for the clinical trial in question;
- the availability of an appropriate genomic screening test;
- the perceived risks and benefits of the drug candidate under study;
- the efforts to facilitate timely enrollment in clinical trials;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

Genomically defined diseases may have relatively low prevalence and it may be difficult to identify patients with the genomic driver of the disease, which may lead to delays in enrollment for our trials.

Following our general drug development strategy, we have designed our planned Phase 1 clinical trials of each of BLU-285 and BLU-554, and expect to design future trials, to include some patients with the applicable genomic alteration that causes the disease with a view to assessing possible early evidence of potential therapeutic effect. Genomically defined diseases, however, may have relatively low prevalence and it may be difficult to identify patients with the applicable genomic alteration. We intend to engage third parties to develop companion diagnostics for use in our clinical trials, but such third parties may not be successful in developing such companion diagnostics, furthering the difficulty in identifying patients with the applicable genomic alteration for our clinical trials. Our inability to enroll a sufficient number of patients with the applicable genomic alteration for our clinical trials would result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our drug candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing. Further, if we are unable to include patients with the applicable genomic alteration, this could compromise our ability to seek participation in FDA's expedited review and approval programs, including Breakthrough Therapy Designation and Fast Track Designation, or otherwise to seek to accelerate clinical development and regulatory timelines.

If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals both for our drug candidates and for the related companion diagnostics, we will not be able to commercialize, or will be delayed in commercializing, our drug candidates, and our ability to generate revenue will be materially impaired.

Our drug candidates and the related companion diagnostics and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale, distribution, import and export are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Before we can commercialize any of our drug candidates, we must obtain marketing approval. We may also need marketing approval for the related companion diagnostics. We have not received approval to market any of our drug candidates or related companion diagnostics from regulatory authorities in any jurisdiction and it is possible that none of our drug candidates or any drug candidates or related companion diagnostics we may seek to develop in the future will ever obtain regulatory approval. We have only limited experience in filing and supporting the applications necessary to gain regulatory approvals and expect to rely on third-party CROs and/or regulatory consultants to assist us in this process. Securing regulatory approval requires the submission of extensive pre-clinical and clinical data and supporting information to the various regulatory authorities for each therapeutic indication to establish the drug candidate's safety and efficacy. Securing regulatory approval also requires the submission of information about the drug manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authority. Our drug candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval or prevent or limit commercial use.

The process of obtaining regulatory approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the drug candidates involved. Changes in marketing approval policies during the

development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted NDA, Pre-Market Approval, or PMA, or equivalent application types, may cause delays in the approval or rejection of an application. The FDA and comparable authorities in other countries have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional pre-clinical, clinical or other studies. Our drug candidates could be delayed in receiving, or fail to receive, regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a drug candidate is safe and effective for its proposed indication or a related companion diagnostic is suitable to identify appropriate patient populations;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a drug candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from pre-clinical studies or clinical trials;
- the data collected from clinical trials of our drug candidates may not be sufficient to support the submission of an NDA or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

In addition, even if we were to obtain approval, regulatory authorities may approve any of our drug candidates for fewer or more limited indications than we request, may not approve the price we intend to charge for our drugs and related companion diagnostics, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a drug candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that drug candidate. Any of the foregoing scenarios could materially harm the commercial prospects for our drug candidates.

If we experience delays in obtaining approval or if we fail to obtain approval of our drug candidates and related companion diagnostics, the commercial prospects for our drug candidates may be harmed and our ability to generate revenues will be materially impaired.

Our drug candidates may cause undesirable side effects that could delay or prevent their regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if any.

Undesirable side effects caused by our drug candidates could cause us to interrupt, delay or halt pre-clinical studies or could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other regulatory authorities. While we have not yet initiated clinical trials for any of our drug candidates, as is the case with all oncology drugs, it is likely that there may be side effects

associated with their use. Results of our trials could reveal a high and unacceptable severity and prevalence of these or other side effects. In such an event, our trials could be suspended or terminated and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our drug candidates for any or all targeted indications. The drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly.

Further, our drug candidates could cause undesirable side effects in clinical trials related to on-target toxicity. For example, the FGF19/FGFR4 signaling axis has been shown to play a role in the regulation of de novo bile acid synthesis. Modulation of this signaling axis by treatment with a small molecule FGFR4 inhibitor could lead to the clinical symptoms that were observed with administration of an FGF19 antibody. If on-target toxicity is observed, or if our drug candidates have characteristics that are unexpected, we may need to abandon their development or limit development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. Many compounds that initially showed promise in early stage testing for treating cancer have later been found to cause side effects that prevented further development of the compound.

Further, clinical trials by their nature utilize a sample of the potential patient population. With a limited number of patients and limited duration of exposure, rare and severe side effects of our drug candidates may only be uncovered with a significantly larger number of patients exposed to the drug candidate. If our drug candidates receive marketing approval and we or others identify undesirable side effects caused by such drug candidates (or any other similar drugs) after such approval, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw or limit their approval of such drug candidates;
- regulatory authorities may require the addition of labeling statements, such as a "boxed" warning or a contraindication;
- we may be required to create a medication guide outlining the risks of such side effects for distribution to patients;
- we may be required to change the way such drug candidates are distributed or administered, conduct additional clinical trials or change the labeling of the drug candidates;
- regulatory authorities may require a Risk Evaluation and Mitigation Strategy, or REMS, plan to mitigate risks, which could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools;
- we may be subject to regulatory investigations and government enforcement actions;
- we may decide to remove such drug candidates from the marketplace;
- we could be sued and held liable for injury caused to individuals exposed to or taking our drug candidates; and
- our reputation may suffer.

We believe that any of these events could prevent us from achieving or maintaining market acceptance of the affected drug candidates and could substantially increase the costs of commercializing our drug candidates, if approved, and significantly impact our ability to successfully commercialize our drug candidates and generate revenues.

A Breakthrough Therapy Designation by the FDA for our drug candidates may not lead to a faster development or regulatory review or approval process, and it does not increase the likelihood that our drug candidates will receive marketing approval.

We may seek a Breakthrough Therapy Designation for some of our drug candidates. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA are also eligible for accelerated approval.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our drug candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a Breakthrough Therapy Designation for a drug candidate may not result in a faster development process, review or approval compared to drugs considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our drug candidates qualify as breakthrough therapies, the FDA may later decide that the drugs no longer meet the conditions for qualification.

A Fast Track Designation by the FDA may not actually lead to a faster development or regulatory review or approval process.

We may seek Fast Track Designation for some of our drug candidates. If a drug is intended for the treatment of a serious or life-threatening condition and the drug demonstrates the potential to address unmet medical needs for this condition, the drug sponsor may apply for Fast Track Designation. The FDA has broad discretion whether or not to grant this designation, so even if we believe a particular drug candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive Fast Track Designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development program.

We may seek Orphan Drug Designation for some of our drug candidates, and we may be unsuccessful or may be unable to maintain the benefits associated with Orphan Drug Designation, including the potential for market exclusivity.

As part of our business strategy, we may seek Orphan Drug Designation for our drug candidates, and we may be unsuccessful. Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a drug as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. In the United States, Orphan Drug Designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers.

Similarly, in Europe, the European Medicines Agency's, or EMA, Committee for Orphan Medicinal Products grants Orphan Drug Designation to promote the development of drugs that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than 5 in 10,000 persons in Europe and for which no satisfactory method of diagnosis, prevention, or treatment has been authorized (or the product would be a significant benefit to those affected). Additionally, designation is granted for drugs intended for the diagnosis, prevention, or treatment of a life-threatening, seriously debilitating or serious and chronic condition and when, without incentives, it is unlikely that sales of the drug in Europe would be sufficient to justify the necessary investment in developing the drug. In Europe, Orphan Drug Designation entitles a party to financial incentives such as reduction of fees or fee waivers.

Generally, if a drug with an Orphan Drug Designation subsequently receives the first marketing approval for the indication for which it has such designation, the drug is entitled to a period of marketing exclusivity, which precludes the EMA or the FDA from approving another marketing application for the same drug and indication for that time period, except in limited circumstances. The applicable period is seven years in the United States and ten years in Europe. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for Orphan Drug Designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified.

Even if we obtain orphan drug exclusivity for a drug, that exclusivity may not effectively protect the drug from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve the same drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. In addition, a designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. Moreover, orphan drug exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition or if another drug with the same active moiety is determined to be safer, more effective, or represents a major contribution to patient care. Orphan Drug Designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process. While we intend to seek Orphan Drug Designation for our drug candidates, we may never receive such designations. Even if we do receive such designations, there is no guarantee that we will enjoy the benefits of those designations.

Even if we receive regulatory approval for any of our drug candidates, we will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, our drug candidates, if approved, could be subject to labeling and other restrictions and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our drugs.

If the FDA or a comparable foreign regulatory authority approves any of our drug candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the drug will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with current Good Manufacturing Practices, or cGMPs, and Good Clinical Practices, or GCPs, for any clinical trials that we conduct post-approval. Any regulatory approvals that we receive for our drug candidates may also be subject to limitations on the approved indicated uses for which the drug may be marketed or to the conditions of approval, or contain requirements for potentially costly

post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the drug. Later discovery of previously unknown problems with a drug, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the drug, withdrawal of the drug from the market, or voluntary or mandatory drug recalls;
- fines, warning letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us, or suspension or revocation of drug license approvals;
- drug seizure or detention, or refusal to permit the import or export of drugs; and
- injunctions or the imposition of civil or criminal penalties.

The FDA's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our drug candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, which would adversely affect our business, prospects and ability to achieve or sustain profitability.

We may not be successful in our efforts to use and expand our development platform to build a pipeline of drug candidates.

A key element of our strategy is to use our novel target discovery engine to identify kinases that are drivers in genomically defined diseases with high unmet medical need in order to build a pipeline of drug candidates. Although our research and development efforts to date have resulted in a pipeline of drug candidates, we may not be able to continue to identify novel kinase drivers and develop drug candidates. Even if we are successful in continuing to build our pipeline, the potential drug candidates that we identify may not be suitable for clinical development. For example, they may be shown to have harmful side effects or other characteristics that indicate that they are unlikely to be drugs that will receive marketing approval and achieve market acceptance. If we do not successfully develop and commercialize drug candidates based upon our approach, we will not be able to obtain drug revenues in future periods, which likely would result in significant harm to our financial position and adversely affect our stock price.

We may expend our limited resources to pursue a particular drug candidate or indication and fail to capitalize on drug candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research programs and drug candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other drug candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial drugs or profitable market opportunities. Our spending on current and future research and development programs and drug candidates for specific indications may not yield any commercially viable drugs. If we do not accurately evaluate the commercial potential or target market for a particular drug candidate, we may relinquish valuable rights to that drug candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such drug candidate.

Risks Related to Commercialization

The incidence and prevalence for target patient populations of our drug candidates have not been established with precision. If the market opportunities for our drug candidates are smaller than we estimate or if any approval that we obtain is based on a narrower definition of the patient population, our revenue and ability to achieve profitability will be adversely affected, possibly materially.

The precise incidence and prevalence for SM, GIST and HCC are unknown. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our drug candidates, are based on estimates. We estimate that there are approximately: (i) 4,500 addressable patients with advanced forms of SM and approximately 16,000 addressable patients with indolent SM in the United States, France, Germany, Italy, Spain, the United Kingdom and Japan, or the Major Markets; (ii) 500 addressable patients with PDGFRa D842V-driven, unresectable or metastatic GIST in the Major Markets and approximately 20,000 addressable patients in the Major Markets with unresectable or metastatic frontline GIST; and (iii) 18,000 first line and 6,000 second line addressable HCC patients with aberrantly active FGFR4, signaling in the Major Markets.

The total addressable market opportunity for BLU-285 for the treatment of patients with SM and GIST and BLU-554 for the treatment of HCC patients with aberrantly active FGFR4 signaling will ultimately depend upon, among other things, the diagnosis criteria included in the final label for each of BLU-285 and BLU-554, if our drug candidates are approved for sale for these indications, acceptance by the medical community and patient access, drug pricing and reimbursement. The number of patients in the Major Markets and elsewhere may turn out to be lower than expected, patients may not be otherwise amenable to treatment with our drugs, or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business.

We face substantial competition, which may result in others discovering, developing or commercializing drugs before or more successfully than we do.

The development and commercialization of new drugs is highly competitive. We face competition with respect to our current drug candidates, and will face competition with respect to any drug candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell drugs or are pursuing the development of therapies in the field of kinase inhibition for cancer and other diseases. Some of these competitive drugs and therapies are based on scientific approaches that are the same as or similar to our approach, and others are based on entirely different approaches. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

Specifically, there are a large number of companies developing or marketing treatments for cancer, including many major pharmaceutical and biotechnology companies. If BLU-285 receives marketing approval for advanced SM, GIST and/or for patients with GIST with the PDGFRa D842V mutation, it may face competition from other drug candidates in development for these indications, including drug candidates in development from AB Science S.A., Plexxikon Inc., a wholly-owned subsidiary of Daiichi Sankyo Company, Limited, Deciphera Pharmaceuticals, LLC, Novartis AG, AROG Pharmaceuticals, Inc. and ARIAD Pharmaceuticals, Inc. Further, if BLU-554 receives marketing approval for patients with HCC with FGF19 overexpression, it will face competition from

sorafenib, the only approved systemic medical therapy for HCC. In addition, we are aware of potentially competitive drug candidates in development by AstraZeneca plc, Bayer AG, Johnson & Johnson, Novartis AG, Taiho Pharmaceutical Co., Ltd. and Xoma Ltd.

Many of the companies against which we are competing or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, pre-clinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved drugs than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize drugs that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any drugs that we or our collaborators may develop. Our competitors also may obtain FDA or other regulatory approval for their drugs more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we or our collaborators are able to enter the market. The key competitive factors affecting the success of all of our drug candidates, if approved, are likely to be their efficacy, safety, convenience, price, the effectiveness of companion diagnostics in guiding the use of related drugs, the level of generic competition and the availability of reimbursement from government and other third-party payors.

Product liability lawsuits against us could cause us to incur substantial liabilities and could limit commercialization of any drug candidates that we may develop.

We will face an inherent risk of product liability exposure related to the testing of our drug candidates in human clinical trials and will face an even greater risk if we commercially sell any drug candidates that we may develop. If we cannot successfully defend ourselves against claims that our drug candidates caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any drug candidates that we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend the related litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue; and
- the inability to commercialize any drug candidates that we may develop.

Although we maintain product liability insurance coverage, it may not be adequate to cover all liabilities that we may incur. We anticipate that we will need to increase our insurance coverage when we begin clinical trials and if we successfully commercialize any drug candidate. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

If we or our collaborators are unable to successfully develop and commercialize companion diagnostics for our drug candidates, or experience significant delays in doing so we may not realize the full commercial potential of our drug candidates.

Because we are focused on precision medicine, in which predictive biomarkers will be used to identify the right patients for our drug candidates, we believe that our success may depend, in part, on the development and commercialization of companion diagnostics. There has been limited success to date industrywide in developing and commercializing these types of companion diagnostics. To be successful, we need to address a number of scientific, technical and logistical challenges. We have not yet initiated development and commercialization of companion diagnostics. We have little experience in the development and commercialization of diagnostics and may not be successful in developing and commercializing appropriate diagnostics to pair with any of our drug candidates that receive marketing approval. Companion diagnostics are subject to regulation by the FDA and similar regulatory authorities outside the United States as medical devices and require separate regulatory approval prior to commercialization. Given our limited experience in developing and commercializing diagnostics, we expect to rely in part or in whole on third parties for their design, manufacture and commercialization. We and our collaborators may encounter difficulties in developing and obtaining approval for the companion diagnostics, including issues relating to selectivity/specificity, analytical validation, reproducibility, or clinical validation. Any delay or failure by us or our collaborators to develop or obtain regulatory approval of the companion diagnostics could delay or prevent approval of our drug candidates. If we, or any third parties that we engage to assist us, are unable to successfully develop and commercialize companion diagnostics for our drug candidates, or experience delays in doing so:

- the development of our drug candidates may be adversely affected if we are unable to appropriately select patients for enrollment in our clinical trials;
- our drug candidates may not receive marketing approval if safe and effective use of a therapeutic drug candidate depends on an *in vitro* diagnostic; and
- we may not realize the full commercial potential of any drug candidates that receive marketing approval if, among other reasons, we are unable to appropriately select patients who are likely to benefit from therapy with our drugs.

As a result, our business would be harmed, possibly materially.

In addition, third party collaborators may encounter production difficulties that could constrain the supply of the companion diagnostics, and both they and we may have difficulties gaining acceptance of the use of the companion diagnostics in the clinical community. If such companion diagnostics fail to gain market acceptance, it would have an adverse effect on our ability to derive revenues from sales of our drug candidates, if approved. In addition, the diagnostic company with whom we contract may decide to discontinue selling or manufacturing the companion diagnostic that we anticipate using in connection with development and commercialization of our drug candidates or our relationship with such diagnostic company may otherwise terminate. We may not be able to enter into arrangements with another diagnostic company to obtain supplies of an alternative diagnostic test for use in connection with the development and commercialization of our drug candidates or do so on commercially reasonable terms, which could adversely affect and/or delay the development or commercialization of our drug candidates.

Even if we are able to commercialize any drug candidates, such drugs may become subject to unfavorable pricing regulations or third-party coverage and reimbursement policies, which would harm our business.

The regulations that govern regulatory approvals, pricing and reimbursement for new drugs vary widely from country to country. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a drug candidate in a particular country, but then be subject to price regulations that delay our commercial launch of the drug candidate, possibly for lengthy time periods, and negatively impact the revenues we are able to generate from the sale of the drug candidate in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more drug candidates, even if our drug candidates obtain marketing approval.

Our ability to commercialize any drug candidates successfully also will depend in part on the extent to which coverage and reimbursement for these drug candidates and related treatments will be available from government authorities, private health insurers and other organizations. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular drugs. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for drugs. We cannot be sure that coverage will be available for any drug candidate that we commercialize and, if coverage is available, the level of reimbursement. Reimbursement may impact the demand for, or the price of, any drug candidate for which we obtain marketing approval. If reimbursement is not available or is available only to limited levels, we may not be able to successfully commercialize any drug candidate for which we obtain marketing approval.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or similar regulatory authorities outside the United States. Moreover, eligibility for reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable payment rates from both government-funded and private payors for any approved drugs that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize drugs and our overall financial condition.

Healthcare legislative reform measures may have a material adverse effect on our business and results of operations.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or the Affordable Care Act, was passed, which substantially changes the way health care is financed by both governmental and private insurers, and significantly impacts the U.S. pharmaceutical industry. The Affordable Care Act, among other things, subjects biologic products to potential competition by lower-cost biosimilars, addresses a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected, increases the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extends the rebate program to individuals enrolled in Medicaid managed care organizations, establishes annual fees and taxes on manufacturers of certain branded prescription drugs, and a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D.

In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2024 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, the Middle Class Tax Relief and Job Creation Act of 2012 required that the Centers for Medicare & Medicaid Services, the agency responsible for administering the Medicare program, or CMS, reduce the Medicare clinical laboratory fee schedule by 2% in 2013, which served as a base for 2014 and subsequent years. In addition, effective January 1, 2014, CMS also began bundling the Medicare payments for certain laboratory tests ordered while a patient received services in a hospital outpatient setting. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our drug candidates or companion diagnostics or additional pricing pressures.

If, in the future, we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market our drug candidates, we may not be successful in commercializing our drug candidates if and when they are approved, and we may not be able to generate any revenue.

We do not currently have a sales or marketing infrastructure and have limited experience in the sale, marketing or distribution of drugs. To achieve commercial success for any approved drug candidate for which we retain sales and marketing responsibilities, we must build our sales, marketing, managerial, and other non-technical capabilities or make arrangements with third parties to perform these services. In the future, we may choose to build a focused sales and marketing

infrastructure to sell, or participate in sales activities with our collaborators for, some of our drug candidates if and when they are approved.

There are risks involved with both establishing our own sales and marketing capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force is expensive and time consuming and could delay any drug launch. If the commercial launch of a drug candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our drug candidates on our own include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future drugs;
- the lack of complementary drugs to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we enter into arrangements with third parties to perform sales, marketing and distribution services, our drug revenues or the profitability of these drug revenues to us are likely to be lower than if we were to market and sell any drug candidates that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell and market our drug candidates or may be unable to do so on terms that are favorable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our drug candidates effectively. If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our drug candidates. Further, our business, results of operations, financial condition and prospects will be materially adversely affected.

Our relationships with customers and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, exclusion from government healthcare programs, contractual damages, reputational harm and diminished profits and future earnings.

Although we do not currently have any drugs on the market, once we begin commercializing our drug candidates, we will be subject to additional healthcare statutory and regulatory requirements and enforcement by the federal government and the states and foreign governments in which we conduct our business. Healthcare providers, physicians and third-party payors play a primary role in the recommendation and prescription of any drug candidates for which we obtain marketing approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our drug candidates for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order

or recommendation of, any good or service, for which payment may be made under federal and state healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- the federal False Claims Act imposes criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false of fraudulent claim for purposes of the False Claims Act;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services; similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- the federal physician payment transparency requirements, sometimes referred to as the "Sunshine Act" under the Affordable Care Act require manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program to report to the Department of Health and Human Services information related to physician payments and other transfers of value and the ownership and investment interests of such physicians and their immediate family members;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 and its implementing regulations, which also imposes obligations on certain covered entity healthcare providers, health plans, and healthcare clearinghouses as well as their business associates that perform certain services involving the use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information; and

- analogous state laws and regulations, such as state anti-kickback and false claims laws that may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; and some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Ensuring that our future business arrangements with third parties comply with applicable healthcare laws and regulations could involve substantial costs. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations, including anticipated activities to be conducted by our sales team, were to be found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties,

damages, fines, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

Our future growth may depend, in part, on our ability to penetrate foreign markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.

Our future profitability may depend, in part, on our ability to commercialize our drug candidates in foreign markets for which we may rely on collaboration with third parties. We are not permitted to market or promote any of our drug candidates before we receive regulatory approval from the applicable regulatory authority in that foreign market, and we may never receive such regulatory approval for any of our drug candidates. To obtain separate regulatory approval in many other countries we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy and governing, among other things, clinical trials and commercial sales, pricing and distribution of our drug candidates, and we cannot predict success in these jurisdictions. If we obtain approval of our drug candidates and ultimately commercialize our drug candidates in foreign markets, we would be subject to additional risks and uncertainties, including:

- our customers' ability to obtain reimbursement for our drug candidates in foreign markets;
- our inability to directly control commercial activities because we are relying on third parties;
- the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements;
- different medical practices and customs in foreign countries affecting acceptance in the marketplace;
- import or export licensing requirements;
- longer accounts receivable collection times;
- longer lead times for shipping;
- language barriers for technical training;
- reduced protection of intellectual property rights in some foreign countries;
- the existence of additional potentially relevant third-party intellectual property rights;
- foreign currency exchange rate fluctuations; and
- the interpretation of contractual provisions governed by foreign laws in the event of a contract dispute.

Foreign sales of our drug candidates could also be adversely affected by the imposition of governmental controls, political and economic instability, trade restrictions and changes in tariffs.

Governments outside the United States tend to impose strict price controls, which may adversely affect our revenues, if any.

In some countries, particularly the countries in Europe, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a drug. To obtain reimbursement or pricing approval in some countries, we may be required to

conduct a clinical trial that compares the cost-effectiveness of our drug candidate to other available therapies. If reimbursement of our drugs is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological and radioactive materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

Risks Related to Our Dependence on Third Parties

We may seek to establish additional collaborations, and, if we are not able to establish them on commercially reasonable terms, we may have to alter our development and commercialization plans.

Our drug development programs and the potential commercialization of our drug candidates will require substantial additional cash to fund expenses. For some of our drug candidates, we may decide to collaborate with additional pharmaceutical and biotechnology companies for the development and potential commercialization of those drug candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject drug candidate, the costs and complexities of manufacturing and delivering such drug candidate to patients, the potential of competing drugs, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The collaborator may also consider alternative drug candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our drug candidate. The terms of any additional collaborations or other arrangements that we may establish may not be favorable to us.

We may also be restricted under existing collaboration agreements from entering into future agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of

recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate additional collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of the drug candidate for which we are seeking to collaborate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our drug candidates or bring them to market and generate drug revenue.

In addition, our collaboration with Alexion and any future collaborations that we enter into may not be successful. The success of our collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations. Disagreements between parties to a collaboration arrangement regarding clinical development and commercialization matters can lead to delays in the development process or commercializing the applicable drug candidate and, in some cases, termination of the collaboration arrangement. These disagreements can be difficult to resolve if neither of the parties has final decision-making authority. Collaborations with pharmaceutical or biotechnology companies and other third parties often are terminated or allowed to expire by the other party. Any such termination or expiration would adversely affect us financially and could harm our business reputation.

We expect to rely on third parties to conduct our clinical trials for our drug candidates. If these third parties do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our drug candidates and our business could be substantially harmed.

We do not have the ability to independently conduct clinical trials. We expect to rely on medical institutions, clinical investigators, contract laboratories and other third parties, such as CROs, to conduct or otherwise support clinical trials for our drug candidates. We expect to rely heavily on these parties for execution of clinical trials for our drug candidates and control only certain aspects of their activities. Nevertheless, we will be responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol, legal and regulatory requirements and scientific standards, and our reliance on CROs will not relieve us of our regulatory responsibilities. For any violations of laws and regulations during the conduct of our clinical trials, we could be subject to warning letters or enforcement action that may include civil penalties up to and including criminal prosecution.

We and our CROs will be required to comply with regulations, including GCPs, for conducting, monitoring, recording and reporting the results of clinical trials to ensure that the data and results are scientifically credible and accurate, and that the trial patients are adequately informed of the potential risks of participating in clinical trials and their rights are protected. These regulations are enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities for any drugs in clinical development. The FDA enforces GCP regulations through periodic inspections of clinical trial sponsors, principal investigators and trial sites. If we or our CROs fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our

marketing applications. We cannot assure you that, upon inspection, the FDA will determine that any of our future clinical trials will comply with GCPs. In addition, our clinical trials must be conducted with drug candidates produced under cGMPs regulations. Our failure or the failure of our CROs to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process and could also subject us to enforcement action. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within certain timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Although we intend to design the clinical trials for our drug candidates, CROs will conduct all of the clinical trials. As a result, many important aspects of our development programs, including their conduct and timing, will be outside of our direct control. Our reliance on third parties to conduct future clinical trials will also result in less direct control over the management of data developed through clinical trials than would be the case if we were relying entirely upon our own staff. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may:

- have staffing difficulties;
- fail to comply with contractual obligations;
- experience regulatory compliance issues;
- undergo changes in priorities or become financially distressed; or
- form relationships with other entities, some of which may be our competitors.

These factors may materially adversely affect the willingness or ability of third parties to conduct our clinical trials and may subject us to unexpected cost increases that are beyond our control. If the CROs do not perform clinical trials in a satisfactory manner, breach their obligations to us or fail to comply with regulatory requirements, the development, regulatory approval and commercialization of our drug candidates may be delayed, we may not be able to obtain regulatory approval and commercialize our drug candidates, or our development program materially and irreversibly harmed. If we are unable to rely on clinical data collected by our CROs, we could be required to repeat, extend the duration of, or increase the size of any clinical trials we conduct and this could significantly delay commercialization and require significantly greater expenditures.

If any of our relationships with these third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, any clinical trials such CROs are associated with may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our drug candidates. As a result, we believe that our financial results and the commercial prospects for our drug candidates in the subject indication would be harmed, our costs could increase and our ability to generate revenue could be delayed.

We contract with third parties for the manufacture of our drug candidates for pre-clinical development and expect to continue to do so for clinical testing and commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our drug candidates or drugs or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not currently own or operate, nor do we have any plans to establish in the future, any manufacturing facilities or personnel. We rely, and expect to continue to rely, on third parties for the

manufacture of our drug candidates for pre-clinical development and clinical testing, as well as for the commercial manufacture of our drugs if any of our drug candidates receive marketing approval. This reliance on third parties increases the risk that we will not have sufficient quantities of our drug candidates or drugs or such quantities at an acceptable cost or quality, which could delay, prevent or impair our development or commercialization efforts.

The facilities used by our contract manufacturers to manufacture our drug candidates must be approved by the FDA pursuant to inspections that will be conducted after we submit our marketing applications to the FDA. We do not control the manufacturing process of, and will be completely dependent on, our contract manufacturers for compliance with cGMPs in connection with the manufacture of our drug candidates. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or others, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. In addition, we have no control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our drug candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our drug candidates, if approved. Further, our failure, or the failure of our third party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of drug candidates or drugs, if approved, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect our business and supplies of our drug candidates.

We may be unable to establish any agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements with third party manufacturers, reliance on third party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Our drug candidates and any drugs that we may develop may compete with other drug candidates and approved drugs for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us.

Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval. If our current contract manufacturers cannot perform as agreed, we may be required to replace such manufacturers. Although we believe that there are several potential alternative manufacturers who could manufacture our drug candidates, we may incur added costs and delays in identifying and qualifying any such replacement.

Our current and anticipated future dependence upon others for the manufacture of our drug candidates or drugs may adversely affect our future profit margins and our ability to commercialize any drugs that receive marketing approval on a timely and competitive basis.

The third parties upon whom we rely for the supply of the active pharmaceutical ingredient, drug product and drug substance used in our lead drug candidates are our sole source of supply, and the loss of any of these suppliers could significantly harm our business.

The active pharmaceutical ingredients, or API, drug product and drug substance used in our lead drug candidates are supplied to us from single-source suppliers. Our ability to successfully develop our drug candidates, and to ultimately supply our commercial drugs in quantities sufficient to meet the market demand, depends in part on our ability to obtain the API, drug product and drug substance for these drugs in accordance with regulatory requirements and in sufficient quantities for commercialization and clinical testing. We do not currently have arrangements in place for a redundant or second-source supply of any such API, drug product or drug substance in the event any of our current suppliers of such API, drug product and drug substance cease their operations for any reason.

For all of our drug candidates, we intend to identify and qualify additional manufacturers to provide such API, drug product and drug substance prior to submission of an NDA to the FDA and/or an MAA to the EMA. We are not certain, however, that our single-source suppliers will be able to meet our demand for their products, either because of the nature of our agreements with those suppliers, our limited experience with those suppliers or our relative importance as a customer to those suppliers. It may be difficult for us to assess their ability to timely meet our demand in the future based on past performance. While our suppliers have generally met our demand for their products on a timely basis in the past, they may subordinate our needs in the future to their other customers.

Establishing additional or replacement suppliers for the API, drug product and drug substance used in our drug candidates, if required, may not be accomplished quickly. If we are able to find a replacement supplier, such replacement supplier would need to be qualified and may require additional regulatory approval, which could result in further delay. While we seek to maintain adequate inventory of the API, drug product and drug substance used in our drug candidates, any interruption or delay in the supply of components or materials, or our inability to obtain such API, drug product and drug substance from alternate sources at acceptable prices in a timely manner could impede, delay, limit or prevent our development efforts, which could harm our business, results of operations, financial condition and prospects.

Risks Related to Intellectual Property

If we are unable to adequately protect our proprietary technology or obtain and maintain patent protection for our technology and drugs or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and drugs similar or identical to ours, and our ability to successfully commercialize our technology and drugs may be impaired.

Our commercial success depends in part on our ability to obtain and maintain proprietary or intellectual property protection in the United States and other countries for our drug candidates, including BLU-285 and BLU-554, and our core technologies, including our novel target discovery engine and our proprietary compound library and other know-how. We seek to protect our proprietary and intellectual property position by, among other methods, filing patent applications in the United States and abroad related to our proprietary technology, inventions and improvements that are important to the development and implementation of our business. We also rely on trade secrets, know-how and continuing technological innovation to develop and maintain our proprietary and intellectual property position.

We own a patent and patent applications that relate to BLU-285 and BLU-554 as composition of matter. We also own applications relating to composition of matter for KIT Exon 17 inhibitors with

different compound families, composition of matter for FGFR4 inhibitors with multiple compound families, and composition of matter for inhibitors of the predicted RET resistant mutants, as well as methods of use for these novel compounds. The issued patent directed to BLU-554 composition of matter is expected to expire in 2033, and our pending patent applications, if issued, are projected to expire between 2034 and 2036.

As of February 7, 2015, we owned four pending U.S. patent applications, nine pending foreign patent applications and three pending Patent Cooperation Treaty, or PCT, patent applications that relate to our KIT Exon 17 program. Each of the U.S. and ex-U.S. patents issuing from the pending applications covering BLU-285 will have a statutory expiration date of October 2034. Patent term adjustments or patent term extensions could result in later expiration dates.

As of February 7, 2015, we owned one issued U.S. patent, three pending U.S. patent applications, 32 foreign patent applications corresponding to two of these pending U.S. applications, and two pending PCT patent applications that relate to our FGFR4 program. Each of the U.S. and ex-U.S. patent issuing from the pending applications covering BLU-554 will have a statutory expiration date of July 2033, December 2033, or October 2034. Patent term adjustments or patent term extensions could result in later expiration dates.

As of February 7, 2015, we owned one pending U.S. patent application that relates to our RET program.

The intellectual property portfolio directed to our platform includes patent applications directed to novel gene fusions and the uses of these fusions for detecting and treating conditions implicated with these fusions. As of February 7, 2015, we owned eight pending U.S. patent applications and two PCT patent applications related to our platform.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation.

The degree of patent protection we require to successfully commercialize our drug candidates may be unavailable or severely limited in some cases and may not adequately protect our rights or permit us to gain or keep any competitive advantage. We cannot provide any assurances that any of our patents have, or that any of our pending patent applications that mature into issued patents will include, claims with a scope sufficient to protect BLU-285, BLU-554 or our other drug candidates. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Furthermore, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally twenty years after it is filed. Various extensions may be available; however, the life of a patent, and the protection it affords, is limited. Given the amount of time required for the development, testing and regulatory review of new drug candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with adequate and continuing patent protection sufficient to exclude others from commercializing drugs similar or identical to our drug candidates, including generic versions of such drugs.

Other parties have developed technologies that may be related or competitive to our own, and such parties may have filed or may file patent applications, or may have received or may receive patents, claiming inventions that may overlap or conflict with those claimed in our own patent applications or issued patents, with respect to either the same methods or formulations or the same subject matter, in either case that we may rely upon to dominate our patent position in the market. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot know with certainty whether

we were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights cannot be predicted with any certainty.

In addition, the patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. Further, with respect to most of the pending patent applications covering our drug candidates, prosecution has yet to commence. Patent prosecution is a lengthy process, during which the scope of the claims initially submitted for examination by the U.S. Patent and Trademark Office, or USPTO, have been significantly narrowed by the time they issue, if at all. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we do not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

Even if we acquire patent protection that we expect should enable us to maintain such competitive advantage, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad. For example, we may be subject to a third-party submission of prior art to the USPTO challenging the priority of an invention claimed within one of our patents, which submissions may also be made prior to a patent's issuance, precluding the granting of any of our pending patent applications. We may become involved in opposition, derivation, reexamination, *inter partes* review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others from whom we have obtained licenses to such rights. Competitors may claim that they invented the inventions claimed in our issued patents or patent applications prior to us, or may file patent applications before we do. Competitors may also claim that we are infringing on their patents and that we therefore cannot practice our technology as claimed under our patents, if issued. Competitors may also contest our patents, if issued, by showing the patent examiner that the invention was not original, was not novel or was obvious. In litigation, a competitor could claim that our patents, if issued, are not valid for a number of reasons. If a court agrees, we would lose our rights to those challenged patents.

In addition, we may in the future be subject to claims by our former employees or consultants asserting an ownership right in our patents or patent applications, as a result of the work they performed on our behalf. Although we generally require all of our employees, consultants and advisors and any other third parties who have access to our proprietary know-how, information or technology to assign or grant similar rights to their inventions to us, we cannot be certain that we have executed such agreements with all parties who may have contributed to our intellectual property, nor can we be certain that our agreements with such parties will be upheld in the face of a potential challenge, or that they will not be breached, for which we may not have an adequate remedy.

An adverse determination in any such submission or proceeding may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and drugs, without payment to us, or could limit the duration of the patent protection covering our technology and drug candidates. Such challenges may also result in our inability to manufacture or commercialize our drug candidates without

infringing third party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future drug candidates.

Even if they are unchallenged, our issued patents and our pending patents, if issued, may not provide us with any meaningful protection or prevent competitors from designing around our patent claims to circumvent our owned or licensed patents by developing similar or alternative technologies or drugs in a non-infringing manner. For example, a third party may develop a competitive drug that provides benefits similar to one or more of our drug candidates but that has a different composition that falls outside the scope of our patent protection. If the patent protection provided by the patents and patent applications we hold or pursue with respect to our drug candidates is not sufficiently broad to impede such competition, our ability to successfully commercialize our drug candidates could be negatively affected, which would harm our business.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability and the ability of our collaborators to develop, manufacture, market and sell our drug candidates and use our proprietary technologies without infringing the proprietary rights and intellectual property of third parties. The biotechnology and pharmaceutical industries are characterized by extensive and frequent litigation regarding patents and other intellectual property rights. We may in the future become party to, or threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to our drug candidates and technology, including interference proceedings before the USPTO. Our competitors or other third parties may assert infringement claims against us, alleging that our drugs are covered by their patents. Given the vast number of patents in our field of technology, we cannot be certain that we do not infringe existing patents or that we will not infringe patents that may be granted in the future. Many companies have filed, and continue to file, patent applications related to kinase inhibitors. Some of these patent applications have already been allowed or issued, and others may issue in the future. Since this area is competitive and of strong interest to pharmaceutical and biotechnology companies, there will likely be additional patent applications filed and additional patents granted in the future, as well as additional research and development programs expected in the future. Furthermore, because patent applications can take many years to issue and may be confidential for 18 months or more after filing, and because pending patent claims can be revised before issuance, there may be applications now pending which may later result in issued patents that may be infringed by the manufacture, use or sale of our drug candidates. If a patent holder believes our drug or drug candidate infringes on its patent, the patent holder may sue us even if we have received patent protection for our technology. Moreover, we may face patent infringement claims from non-practicing entities that have no relevant drug revenue and against whom our own patent portfolio may thus have no deterrent effect.

If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our drug candidates and technology. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain such a license, it could be granted on non-exclusive terms, thereby providing our competitors and other third parties access to the same technologies licensed to us. Without such a license, we could be forced, including by court order, to cease developing and commercializing the infringing technology or drug candidates. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed such third-party patent rights. A finding of infringement could

prevent us from commercializing our drug candidates or force us to cease some of our business operations, which could materially harm our business.

We may become involved in lawsuits to protect or enforce our patents and other intellectual property rights, which could be expensive, time consuming and unsuccessful.

Competitors and other third parties may infringe, misappropriate or otherwise violate our patents and other intellectual property rights. To counter infringement or unauthorized use, we may be required to file infringement claims. A court may disagree with our allegations, however, and may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the third-party technology in question. Further, such third parties could counterclaim that we infringe their intellectual property or that a patent we have asserted against them is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims challenging the validity, enforceability or scope of asserted patents are commonplace. In addition, third parties may initiate legal proceedings against us to assert such challenges to our intellectual property rights. The outcome of any such proceeding is generally unpredictable. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Patents may be unenforceable if someone connected with prosecution of the patent withheld relevant information from the USPTO or made a misleading statement during prosecution. It is possible that prior art of which we and the patent examiner were unaware during prosecution exists, which could render our patents invalid. Moreover, it is also possible that prior art may exist that we are aware of but do not believe is relevant to our current or future patents, but that could nevertheless be determined to render our patents invalid.

An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. If a defendant were to prevail on a legal assertion of invalidity or unenforceability of our patents covering one of our drug candidates, we would lose at least part, and perhaps all, of the patent protection covering such drug candidate. Competing drugs may also be sold in other countries in which our patent coverage might not exist or be as strong. If we lose a foreign patent lawsuit, alleging our infringement of a competitor's patents, we could be prevented from marketing our drugs in one or more foreign countries. Any of these outcomes would have a materially adverse effect on our business.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Litigation or other legal proceedings relating to intellectual property claims, with or without merit, is unpredictable and generally expensive and time consuming and is likely to divert significant resources from our core business, including distracting our technical and management personnel from their normal responsibilities. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities.

We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Accordingly, despite our efforts, we may not

be able to prevent third parties from infringing upon or misappropriating or from successfully challenging our intellectual property rights. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In addition, periodic maintenance fees on issued patents often must be paid to the USPTO and foreign patent agencies over the lifetime of the patent. While an unintentional lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we fail to maintain the patents and patent applications covering our drugs or procedures, we may not be able to stop a competitor from marketing drugs that are the same as or similar to our drug candidates, which would have a material adverse effect on our business.

We may not be able to effectively enforce our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on our drug candidates in all countries throughout the world would be prohibitively expensive. The requirements for patentability may differ in certain countries, particularly in developing countries. Moreover, our ability to protect and enforce our intellectual property rights may be adversely affected by unforeseen changes in foreign intellectual property laws. Additionally, the patent laws of some foreign countries do not afford intellectual property protection to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of some countries, particularly developing countries, do not favor the enforcement of patents and other intellectual property rights. This could make it difficult for us to stop the infringement of our patents or the misappropriation of our other intellectual property rights. For example, many foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own drugs and, further, may export otherwise infringing drugs to territories where we have patent protection, if our ability to enforce our patents to stop infringing activities is inadequate. These drugs may compete with our drug candidates, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Proceedings to enforce our patent rights in foreign jurisdictions, whether or not successful, could result in substantial costs and divert our efforts and resources from other aspects of our business. Furthermore, while we intend to protect our intellectual property rights in the major markets for our drug candidates, we cannot ensure that we will be able to initiate or maintain similar efforts in all jurisdictions in which we may wish to market our drug candidates. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate.

Changes to the patent law in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our drug candidates.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involve both technological and legal complexity and is therefore costly, time consuming and inherently uncertain. Recent patent reform legislation in the United States and other countries, including the Leahy-Smith America Invents Act, or Leahy-Smith Act, signed into law on September 16, 2011, could increase those uncertainties and costs. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art and provide more efficient and cost-effective avenues for competitors to challenge the validity of patents. In addition, the Leahy-Smith Act has transformed the U.S. patent system into a "first to file" system. The first-to-file provisions, however, only became effective on March 16, 2013. Accordingly, it is not yet clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could make it more difficult to obtain patent protection for our inventions and increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could harm our business, results of operations and financial condition.

The U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. Additionally, there have been recent proposals for additional changes to the patent laws of the United States and other countries that, if adopted, could impact our ability to obtain patent protection for our proprietary technology or our ability to enforce our proprietary technology. Depending on future actions by the U.S. Congress, the U.S. courts, the USPTO and the relevant law-making bodies in other countries, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position may be harmed.

In addition to the protection afforded by patents, we rely upon unpatented trade secret protection, unpatented know-how and continuing technological innovation to develop and maintain our competitive position. With respect to the building of our proprietary compound library, we consider trade secrets and know-how to be our primary intellectual property. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with our collaborators, scientific advisors, employees and consultants, and invention assignment agreements with our consultants and employees. We may not be able to prevent the unauthorized disclosure or use of our technical know-how or other trade secrets by the parties to these agreements, however, despite the existence generally of confidentiality agreements and other contractual restrictions. Monitoring unauthorized uses and disclosures is difficult, and we do not know whether the steps we have taken to protect our proprietary technologies will be effective. If any of the collaborators, scientific advisors, employees and consultants who are parties to these agreements breaches or violates the terms of any of these agreements, we may not have adequate remedies for any such breach or violation, and we could lose our trade secrets as a result. Enforcing a claim that a third party illegally obtained and is using our trade secrets, like patent litigation, is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets.

Our trade secrets could otherwise become known or be independently discovered by our competitors. Competitors could purchase our drug candidates and attempt to replicate some or all

of the competitive advantages we derive from our development efforts, willfully infringe our intellectual property rights, design around our protected technology or develop their own competitive technologies that fall outside of our intellectual property rights. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us. If our trade secrets are not adequately protected so as to protect our market against competitors' drugs, our competitive position could be adversely affected, as could our business.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our competitors or are in breach of non-competition or non-solicitation agreements with our competitors.

We could in the future be subject to claims that we or our employees have inadvertently or otherwise used or disclosed alleged trade secrets or other proprietary information of former employers or competitors. Although we try to ensure that our employees and consultants do not use the intellectual property, proprietary information, know-how or trade secrets of others in their work for us, we may in the future be subject to claims that we caused an employee to breach the terms of his or her non-competition or non-solicitation agreement, or that we or these individuals have, inadvertently or otherwise, used or disclosed the alleged trade secrets or other proprietary information of a former employer or competitor. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and could be a distraction to management. If our defenses to these claims fail, in addition to requiring us to pay monetary damages, a court could prohibit us from using technologies or features that are essential to our drug candidates, if such technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the former employers. An inability to incorporate such technologies or features would have a material adverse effect on our business, and may prevent us from successfully commercializing our drug candidates. In addition, we may lose valuable intellectual property rights or personnel as a result of such claims. Moreover, any such litigation or the threat thereof may adversely affect our ability to hire employees or contract with independent sales representatives. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our drug candidates, which would have an adverse effect on our business, results of operations and financial condition.

Risks Related to Employee Matters, Managing Growth and Other Risks Related to Our Business

Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on the research and development, clinical and business development expertise of Jeffrey W. Albers, our President and Chief Executive Officer, Anthony L. Boral, our Senior Vice President, Clinical Development, Kyle D. Kuvalanka, our Chief Business Officer, and Christoph Lengauer, our Chief Scientific Officer, as well as the other principal members of our management, scientific and clinical team. Although we have entered into employment letter agreements with our executive officers, each of them may terminate their employment with us at any time. We do not maintain "key person" insurance for any of our executives or other employees. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that

may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be critical to our success. The loss of the services of our executive officers or other key employees could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize drugs. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. Failure to succeed in clinical trials may make it more challenging to recruit and retain qualified scientific personnel.

We will need to develop and expand our company, and we may encounter difficulties in managing this development and expansion, which could disrupt our operations.

As of March 23, 2015 we had 61 full-time employees, and in connection with becoming a public company, we expect to increase our number of employees and the scope of our operations. To manage our anticipated development and expansion, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Also, our management may need to divert a disproportionate amount of its attention away from its day-to-day activities and devote a substantial amount of time to managing these development activities. Due to our limited resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. This may result in weaknesses in our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. The physical expansion of our operations may lead to significant costs and may divert financial resources from other projects, such as the development of our drug candidates. If our management is unable to effectively manage our expected development and expansion, our expenses may increase more than expected, our ability to generate or increase our revenue could be reduced and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize our drug candidates, if approved, and compete effectively will depend, in part, on our ability to effectively manage the future development and expansion of our company.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. For example, the global financial crisis caused extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, such as the global financial crisis, could result in a variety of risks to our business, including, weakened demand for our drug candidates and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

We or the third parties upon whom we depend may be adversely affected by earthquakes or other natural disasters and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster.

Earthquakes or other natural disasters could severely disrupt our operations, and have a material adverse effect on our business, results of operations, financial condition and prospects. If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure, such as the manufacturing facilities of our third-party contract manufacturers, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place may prove inadequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which, could have a material adverse effect on our business.

Our internal computer systems, or those of our third-party CROs or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our drug candidates' development programs.

Despite the implementation of security measures, our internal computer systems and those of our third-party CROs and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such system failure, accident, or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our programs. For example, the loss of clinical trial data for our drug candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications or other data or applications relating to our technology or drug candidates, or inappropriate disclosure of confidential or proprietary information, we could incur liabilities and the further development of our drug candidates could be delayed.

Our employees, principal investigators, CROs and consultants may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk that our employees, principal investigators, CROs and consultants may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violate the regulations of the FDA and other regulatory authorities, including those laws requiring the reporting of true, complete and accurate information to such authorities; healthcare fraud and abuse laws and regulations in the United States and abroad; or laws that require the reporting of financial information or data accurately. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Activities subject to these laws also involve the improper use of information obtained in the course of clinical trials or creating fraudulent data in our pre-clinical studies or clinical trials, which could result in regulatory sanctions and cause serious harm to our reputation. We intend to adopt, prior to the completion of this offering, a code of conduct applicable to all of our employees, but it is not always possible to identify and deter misconduct by employees and other third parties, and the

precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. Additionally, we are subject to the risk that a person could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

We may acquire businesses or drugs, or form strategic alliances, in the future, and we may not realize the benefits of such acquisitions.

We may acquire additional businesses or drugs, form strategic alliances or create joint ventures with third parties that we believe will complement or augment our existing business. If we acquire businesses with promising markets or technologies, we may not be able to realize the benefit of acquiring such businesses if we are unable to successfully integrate them with our existing operations and company culture. We may encounter numerous difficulties in developing, manufacturing and marketing any new drugs resulting from a strategic alliance or acquisition that delay or prevent us from realizing their expected benefits or enhancing our business. We cannot assure you that, following any such acquisition, we will achieve the expected synergies to justify the transaction.

Risks Related to Our Common Stock and This Offering

We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

As a public company, and particularly after we are no longer an "emerging growth company," we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act of 2002 and rules subsequently implemented by the Securities and Exchange Commission and NASDAQ have imposed various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, we will be required to furnish a report by our management on our internal control over financial reporting, including an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for

internal control over financial reporting. Despite our efforts, there is a risk that neither we nor our independent registered public accounting firm will be able to conclude within the prescribed timeframe that our internal control over financial reporting is effective as required by Section 404. This could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

The price of our common stock may be volatile and fluctuate substantially, which could result in substantial losses for purchasers of our common stock in this offering.

Our stock price is likely to be volatile. The stock market in general and the market for biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, you may not be able to sell your common stock at or above the initial public offering price. The market price for our common stock may be influenced by many factors, including:

- the success of competitive drugs or technologies;
- results of clinical trials of our drug candidates or those of our competitors;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our drug candidates or clinical development programs;
- the results of our efforts to discover, develop, acquire or in-license additional drug candidates or drugs;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions; and
- the other factors described in this "Risk Factors" section.

An active trading market for our common stock may not develop, and you may not be able to resell your shares at or above the initial public offering price.

Prior to this offering, there has been no public market for shares of our common stock. Although we anticipate that our common stock will be approved for listing on The NASDAQ Global Market, an active trading market for our shares may never develop or be sustained following this offering. The initial public offering price of our common stock will be determined through negotiations between us and the underwriters. This initial public offering price may not be indicative of the market price of our common stock after this offering. In the absence of an active trading market for our common stock, investors may not be able to sell their common stock at or above the initial public offering price or at the time that they would like to sell.

If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our stock, the price of our stock could decline.

The trading market for our common stock will rely in part on the research and reports that industry or financial analysts publish about us or our business. We may never obtain research coverage by industry or financial analysts. If no or few analysts commence coverage of us, the trading price of our stock would likely decrease. Even if we do obtain analyst coverage, if one or more of the analysts covering our business downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

Our executive officers, directors, principal stockholders and their affiliates will continue to exercise significant control over our company after this offering, which will limit your ability to influence corporate matters and could delay or prevent a change in corporate control.

Immediately following the completion of this offering, and disregarding any shares of common stock that they purchase in this offering, the existing holdings of our executive officers, directors, principal stockholders and their affiliates, including investment funds affiliated with Third Rock Ventures and entities affiliated with Fidelity Biosciences Corp., or Fidelity, will represent beneficial ownership, in the aggregate, of approximately % of our outstanding common stock, assuming no exercise of the underwriters' option to acquire additional common stock in this offering and assuming we issue the number of shares of common stock as set forth on the cover page of this prospectus. As a result, these stockholders, if they act together, will be able to influence our management and affairs and control the outcome of matters submitted to our stockholders for approval, including the election of directors and any sale, merger, consolidation, or sale of all or substantially all of our assets. These stockholders acquired their shares of common stock for substantially less than the price of the shares of common stock being acquired in this offering, and these stockholders may have interests, with respect to their common stock, that are different from those of investors in this offering and the concentration of voting power among these stockholders may have an adverse effect on the price of our common stock. In addition, this concentration of ownership might adversely affect the market price of our common stock by:

- delaying, deferring or preventing a change of control of us;
- impeding a merger, consolidation, takeover or other business combination involving us; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

See "Principal Stockholders" in this prospectus for more information regarding the ownership of our outstanding common stock by our executive officers, directors, principal stockholders and their affiliates.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation and amended and restated by-laws may delay or prevent an acquisition of us or a change in our management. These provisions include a classified board of directors, a prohibition on actions by written consent of our stockholders and the ability of our board of directors to issue preferred stock without stockholder approval. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us. Although

we believe these provisions collectively provide for an opportunity to obtain greater value for stockholders by requiring potential acquirors to negotiate with our board of directors, they would apply even if an offer rejected by our board were considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the market price of our common stock could decline. Based upon the number of shares of common stock, on an as-converted basis, outstanding as of December 31, 2014, upon the completion of this offering, we will have outstanding a total of shares of common stock, assuming no exercise of the underwriters' option to purchase additional shares. Of these shares, as of the date of this prospectus, approximately shares of our common stock, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering, assuming that current stockholders do not purchase shares in this offering. The representatives of the underwriters, however, may, in their sole discretion, permit our officers, directors and other stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. After the lock-up agreements expire, based upon the number of shares of common stock, on an as-converted basis, outstanding as of December 31, 2014, up to an additional shares of common stock will be eligible for sale in the public market, % of which shares are held by directors, executive officers and other affiliates and will be subject to certain limitations of Rule 144 under the Securities Act of 1933, as amended, or the Securities Act.

Upon completion of this offering, shares of common stock that are either subject to outstanding options or reserved for future issuance under our equity incentive plans will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the market price of our common stock could decline.

After this offering, the holders of approximately shares of our common stock will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to the lock-up agreements described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates. Any sales of securities by these stockholders could have a material adverse effect on the market our common stock.

We have broad discretion in how we use the proceeds of this offering and may not use these proceeds effectively, which could affect our results of operations and cause our stock price to decline.

We will have considerable discretion in the application of the net proceeds of this offering. We intend to use the net proceeds from this offering to fund our Phase 1 clinical trials of BLU-285 in SM and GIST, our Phase 1 clinical trial of BLU-554 in HCC, in each case, including drug manufacturing, companion diagnostic development and internal personnel and costs, and to fund

new and ongoing research activities including for our RET program, working capital and other general corporate purposes, which may include funding for the hiring of additional personnel, capital expenditures and the costs of operating as a public company. As a result, investors will be relying upon management's judgment with only limited information about our specific intentions for the use of the balance of the net proceeds of this offering. We may use the net proceeds for purposes that do not yield a significant return or any return at all for our stockholders. In addition, pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

We are an "emerging growth company," and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We will remain an emerging growth company until the earlier of (i) the last day of the fiscal year in which we have total annual gross revenues of $1 billion or more; (ii) the last day of the fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- providing only two years of audited financial statements in addition to any required unaudited interim financial statements and a correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. In this prospectus, we have not included all of the executive compensation-related information that would be required if we were not an emerging growth company.

We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of reduced reporting burdens in this prospectus. In particular, we have provided only two years of audited financial statements and have not included all of the executive compensation information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail

ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. Additionally, under the Loan and Security Agreement, we are currently restricted from paying cash dividends, and we expect these restrictions to continue in the future. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

Under Section 382 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change" (generally defined as a greater than 50% change (by value) in the ownership of its equity over a three year period), the corporation's ability to use its pre-change net operating loss carryforwards and certain other pre-change tax attributes to offset its post-change income may be limited. We may have experienced such ownership changes in the past, and we may experience ownership changes in the future as a result of this offering or subsequent shifts in our stock ownership, some of which are outside the Company's control. As of December 31, 2014, we had federal net operating loss carryforwards of approximately $78.1 million, and our ability to utilize those net operating loss carryforwards could be limited by an "ownership change" as described above, which could result in increased tax liability to the Company.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. All statements other than statements of historical facts contained in this prospectus are forward-looking statements. In some cases, you can identify forward-looking statements by words such as "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "seek," "should," "target," "will," "would," or the negative of these words or other comparable terminology. These forward-looking statements include, but are not limited to, statements about:

- our use of the net proceeds from this offering;
- the accuracy of our estimates regarding expenses, future revenues and capital requirements;
- the initiation, timing, progress and results of our pre-clinical studies and clinical trials, and our research and development programs;
- our ability to retain the continued service of our key professional and to identify, hire and retain additional qualified professionals;
- our ability to advance drug candidates into, and successfully complete, clinical trials;
- the number of patients with the genomically defined diseases that our drug candidates are targeting;
- the timing or likelihood of regulatory filing and approvals;
- the commercialization of our drug candidates, if approved;
- the pricing and reimbursement of our drug candidates, if approved;
- the implementation of our business model, strategic plans for our business, drug candidates and technology;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our drug candidates and technology;
- estimates of our expenses, future revenues, capital requirements and our needs for additional financing;
- the potential benefits of our existing collaboration with Alexion Pharma Holding and our ability to enter into other strategic arrangements;
- our ability to maintain and establish collaborations or obtain additional grant funding;
- our financial performance;
- developments relating to our competitors and our industry; and
- other risks and uncertainties, including those listed under the caption "Risk Factors."

Any forward-looking statements in this prospectus reflect our current views with respect to future events or to our future financial performance and involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Important factors that may cause actual results to differ materially from current expectations include, among other things, those listed under "Risk Factors" and elsewhere in this prospectus. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by law, we assume no

obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This prospectus also contains estimates, projections and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $ million from the sale of the shares of common stock offered in this offering, or approximately $ million if the underwriters exercise their over-allotment option in full, based on an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $ million, assuming the initial public offering price stays the same. An increase of 1,000,000 in the number of shares we are offering, together with a $1.00 increase in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $ million. A decrease of 1,000,000 in the number of shares we are offering, together with a $1.00 decrease in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would decrease the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $ million.

The principal purposes of this offering are to increase our financial flexibility, create a public market for our common stock and to facilitate our access to the public equity markets. We currently expect to use the net proceeds from this offering as follows:

- approximately $ million for our Phase 1 clinical trials of BLU-285 in SM and GIST, including drug manufacturing, companion diagnostic development and internal personnel costs;
- approximately $ million for our Phase 1 clinical trial of BLU-554 in HCC, including drug manufacturing, companion diagnostic development and internal personnel costs; and
- approximately $ million for new and ongoing research activities, including for our RET program.

We believe the net proceeds from this offering, together with our existing cash and cash equivalents, including the $15.0 million upfront payment received in March 2015 upon execution of the agreement with Alexion, will be sufficient to fund our Phase 1 clinical trials of BLU-285 in SM and GIST and of BLU-554 in HCC.

We expect to use the remainder of the net proceeds from this offering for working capital and other general corporate purposes, which may include funding for the hiring of additional personnel, capital expenditures and the costs of operating as a public company.

Based on our current plans, we believe our cash and cash equivalents, including the $15.0 million upfront payment received in March 2015 upon execution of the agreement with

Alexion, together with the net proceeds to us from this offering, will be sufficient to fund our operations through at least the end of 2016.

Although we currently anticipate that we will use the net proceeds from this offering as described above, there may be circumstances where a reallocation of funds is necessary. The amounts and timing of our actual expenditures will depend upon numerous factors, including our sales and marketing and commercialization efforts, demand for our drugs, our operating costs and the other factors described under "Risk Factors" in this prospectus. Accordingly, our management will have flexibility in applying the net proceeds from this offering. An investor will not have the opportunity to evaluate the economic, financial or other information on which we base our decisions on how to use the proceeds.

Although we may use a portion of the net proceeds of this offering for the acquisition or licensing, as the case may be, of additional technologies, other assets or businesses, or for other strategic investments or opportunities, we have no current understandings, agreements or commitments to do so.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. In addition, pursuant to our loan and security agreement with Silicon Valley Bank, we are prohibited from paying cash dividends without the prior written consent of Silicon Valley Bank. Moreover, the terms of any future debt agreements may preclude us from paying dividends. Any future determination to pay dividends will be made at the discretion of our board of directors and will depend on various factors, including applicable laws, our results of operations, financial condition, future prospects and any other factors deemed relevant by our board of directors. Investors should not purchase our common stock with the expectation of receiving cash dividend.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of December 31, 2014:

- on an actual basis;
- on a pro forma basis to reflect the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 85,071,252 shares of common stock and the conversion of our preferred stock warrants into warrants to purchase 233,333 shares of our common stock prior to the completion of this offering; and
- on a pro forma as adjusted basis to additionally reflect the issuance and sale by us of shares of our common stock in this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, at an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus.

Our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of the offering determined at pricing. You should read this information together with our audited financial statements and related notes appearing elsewhere in this prospectus and the information set forth under the heading "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	As of December 31, 2014		
(in thousands, except share and per share data)	**Actual**	**Pro forma**	**Pro forma as adjusted(1)**
Cash and cash equivalents	$ 47,240	$ 47,240	$
Term loan payable, net of current portion	7,338	7,338	7,338
Warrant to purchase convertible preferred stock	365	—	
Series A convertible preferred stock, $0.001 par value: 40,150,000 shares authorized, 40,000,000 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	39,958	—	
Series B convertible preferred stock, $0.001 par value: 20,999,996 shares authorized, 20,916,663 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	24,985	—	
Series C convertible preferred stock, $0.001 par value: 24,154,589 shares authorized, 24,154,589 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	49,868	—	
Common stock, $0.001 par value; 110,000,000 shares authorized; 12,202,752, shares issued and 8,947,220 shares outstanding, actual; 110,000,000 shares authorized, pro forma; 97,274,004 shares issued and 94,018,472 outstanding, pro forma; shares authorized, pro forma as adjusted; shares issued and outstanding, pro forma as adjusted;	9	94	
Additional paid-in capital	2,815	117,906	
Accumulated deficit	(82,206)	(82,206)	(82,206)
Total stockholders' (deficit) equity	(79,382)	35,794	
Total capitalization	$ 43,132	$ 43,132	$

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the amount of cash and cash equivalents, additional paid-in capital, total stockholders' (deficit) equity and total capitalization on a pro forma as adjusted basis by approximately $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each

increase (decrease) of one million shares offered by us would increase (decrease) cash and cash equivalents, total stockholders' equity (deficit) and total capitalization on a pro forma as adjusted basis by approximately $ million, assuming the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. A one million share increase in the number of shares offered by us together with a concomitant $1.00 increase in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase each of cash and cash equivalents and total stockholders' (deficit) equity by approximately $ million after deducting the estimated underwriting discounts and commissions and any estimated offering expenses payable by us. Conversely, a one million share decrease in the number of shares offered by us together with a concomitant $1.00 decrease in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would decrease each of cash and cash equivalents and total stockholders' (deficit) equity by approximately $ million after deducting the estimated underwriting discounts and commissions and any estimated offering expenses payable by us. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

The number of shares of common stock to be outstanding after this offering is based on 12,202,752 shares of common stock outstanding as of December 31, 2014, including 2,339,042 shares of unvested restricted stock subject to repurchase by us and 916,490 stock options that were exercised prior to vesting and assuming conversion of all of our outstanding shares of convertible preferred stock upon closing of this offering.

The number of shares of our common stock to be outstanding after this offering excludes the following:

- 7,344,277 shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2014 having a weighted-average exercise price of $0.37 per share;
- 233,333 shares of common stock issuable upon the exercise of outstanding warrants as of December 31, 2014 having a weighted-average exercise price of $1.07 per share;
- 1,504,637 shares of common stock available for future issuance under our 2011 Stock Option and Grant Plan, or 2011 Stock Option Plan, as of December 31, 2014;
- shares of common stock reserved for future issuance under our 2015 Stock Option Plan, which will become effective upon the completion of this offering; and
- shares of common stock reserved for future issuance under our 2015 ESPP, which will become effective upon the completion of this offering.

DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the initial public offering price per share of our common stock in this offering and the pro forma as adjusted net tangible book value per share of our common stock after this offering.

As of December 31, 2014 we had a historical net tangible book value of $35.7 million, or $0.38 per share of common stock, taking into account the expected conversion of our outstanding convertible preferred stock into common stock prior to the completion of this offering. Without giving effect to the conversion of our outstanding convertible preferred stock into common stock, we had a historical net tangible book value of $(79.5) million, or $(8.88) per share of common stock, as of December 31, 2014. Historical net tangible book value per share is equal to our total tangible assets, excluding deferred costs, less total liabilities, including convertible preferred stock, divided by the number of outstanding shares of our common stock (excluding 2,339,042 shares of unvested restricted stock subject to repurchase by us and 916,490 stock options that were exercised prior to vesting). Investors participating in this offering will incur immediate and substantial dilution. After giving effect to (1) the conversion of all of our convertible preferred stock into shares of common stock prior to the completion of this offering and (2) the sale of shares of common stock in this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, at an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, our pro forma as adjusted net tangible book value as of December 31, 2014 would have been approximately $ million, or approximately $ per share of common stock. This represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to our existing stockholders and an immediate dilution of $ per share to investors participating in this offering.

The following table illustrates this per share dilution:

Assumed initial public offering price per share		$
Historical net tangible book value per share as of December 31, 2014	$ (8.88)	
Increase attributable to the conversion of outstanding convertible preferred stock, reclassification of convertible preferred stock warrants and payment of accrued dividends		
Pro forma net tangible book value per share as of December 31, 2014		
Increase in net tangible book value per share attributable to new investors		
Pro forma net tangible book value per share after this offering		
Dilution per share to new investors		$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted net tangible book value, by $ per share and the dilution to new investors by $ per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the estimated underwriting discounts and commissions and estimated expenses payable by us. An increase of one million shares offered by us would increase the pro forma as adjusted net tangible book value by $ per share and the dilution to new investors by $ per share, assuming the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, remains the same and after

deducting the estimated underwriting discounts and commissions and estimated expenses payable by us. Similarly, a decrease of one million shares offered by us would decrease the pro forma as adjusted net tangible book value by $ per share and the dilution to new investors by $ per share, assuming the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated expenses payable by us. A one million share increase in the number of shares offered by us together with a concomitant $1.00 increase in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase the pro forma as adjusted net tangible book value by $ per share and the dilution to new investors by $ per share, after deducting the estimated underwriting discounts and commissions and any estimated offering expenses payable by us. Conversely, a one million share decrease in the number of shares offered by us together with a concomitant $1.00 decrease in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would decrease the pro forma as adjusted net tangible book value by $ per share and the dilution to new investors by $ per share, after deducting the estimated underwriting discounts and commissions and any estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares in full, pro forma as adjusted net tangible book value as of December 31, 2014 will increase to $ million, or $ per share, representing an increase to existing stockholders of $ per share, and there will be an immediate dilution of an additional $ per share to new investors.

The following table summarizes, on a pro forma as adjusted basis as of December 31, 2014, the differences between the number of shares of common stock purchased from us, the total consideration and the average price per share paid by existing stockholders (giving effect to the conversion of all of our convertible preferred stock into shares of common stock prior to the completion of this offering) and by investors participating in this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses, at an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus.

	Shares Purchased		Total Consideration		Average
	Number	Percent	Amount	Percent	Price / Share
Existing stockholders		%$		%$	
New investors		%		%$	
Total		100%$		%	

The table above assumes no exercise of the underwriters' option to purchase additional shares in this offering. If the underwriters' option to purchase additional shares is exercised in full, the number of shares of our common stock held by existing stockholders would be reduced to % of the total number of shares of our common stock outstanding after this offering, and the number of shares of common stock held by new investors participating in the offering would be increased to % of the total number of shares of our common stock outstanding after this offering.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by $, and increase (decrease) the percentage of total consideration paid by new investors by approximately %,

assuming that the number of shares offered by us, as listed on the cover page of this prospectus, remains the same.

Similarly, each increase (decrease) of one million shares in the number of shares of common stock offered by us would increase (decrease) the total consideration paid by new investors by $ million and increase (decrease) the percentage of total consideration paid by new investors by approximately % assuming that the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, price remains the same.

The number of shares of common stock to be outstanding after this offering is based on 12,202,752 shares of common stock outstanding as of December 31, 2014, including 2,339,042 shares of unvested restricted stock subject to repurchase by us and 916,490 stock options that were exercised prior to vesting assuming conversion of all of our outstanding shares of convertible preferred stock upon closing of this offering.

The number of shares of our common stock to be outstanding after this offering excludes the following:

- 7,344,277 shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2014 having a weighted-average exercise price of $0.37 per share;
- 233,333 shares of common stock issuable upon the exercise of outstanding warrants as of December 31, 2014 having a weighted-average exercise price of $1.07 per share;
- 1,504,637 shares of common stock available for future issuance under our 2011 Stock Option and Grant Plan, or 2011 Stock Option Plan, as of December 31, 2014;
- shares of common stock reserved for future issuance under our 2015 Stock Option Plan, which will become effective upon the completion of this offering; and
- shares of common stock reserved for future issuance under our 2015 ESPP, which will become effective upon the completion of this offering.

Furthermore, we may choose to raise additional capital through the sale of equity or convertible debt securities due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. New investors will experience further dilution if any of our outstanding options or warrants are exercised, new options are issued and exercised under our equity incentive plans or we issue additional shares of common stock, other equity securities or convertible debt securities in the future.

SELECTED FINANCIAL DATA

You should read the following selected financial data together with our financial statements and the related notes appearing at the end of this prospectus and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this prospectus. We have derived the statement of operations data for the years ended December 31, 2013 and 2014 and the balance sheet data as of December 31, 2013 and 2014 from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that should be expected in the future.

	Year Ended December 31,	
	2013	2014
	(in thousands, except per share data)	
Statements of Operations Data:		
Operating expenses:		
Research and development	$ 15,928	$ 31,844
General and administrative	5,072	7,890
Total operating expenses	21,000	$ 39,734
Other income (expense):		
Other income (expense), net	226	(98)
Interest and other expense	(138)	(453)
Total other income (expense)	88	(551)
Net loss	$ (20,912)	$ (40,285)
Convertible preferred stock dividends	(2,870)	(5,765)
Net loss applicable to common stockholders	$ (23,782)	$ (46,050)
Net loss per share applicable to common stockholders — basic and diluted(1)	$ (4.26)	$ (5.89)
Weighted-average number of common shares used in net loss per share applicable to common stockholders — basic and diluted(1)	5,582	7,815
Pro forma net loss per share applicable to common stockholders — basic and diluted (unaudited)		$ (0.56)
Pro forma weighted average number of common shares used in net loss per share applicable to common stockholders — basic and diluted (unaudited)		71,962

	As of December 31,	
	2013	2014
	(in thousands)	
Balance Sheet Data:		
Cash and cash equivalents	$ 1,987	$ 47,240
Working capital(2)	(705)	41,510
Total assets	4,135	49,925
Term loan payable, net of current portion	2,155	7,338
Warrant liability	119	365
Convertible preferred stock	39,958	114,811
Total stockholders' (deficit) equity	(41,454)	(79,382)

(1) See Note 2 to the notes to our financial statements appearing elsewhere in this prospectus for further details on the calculation of basic and diluted net loss per share and pro forma basic and diluted net loss per share applicable to common stockholders.

(2) We define working capital as current assets less current liabilities.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and related notes appearing in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Risk Factors" section of this prospectus, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

We are a biopharmaceutical company focused on improving the lives of patients with genomically defined diseases driven by abnormal kinase activation. Our approach is to systematically and reproducibly identify kinases that are drivers of genomically defined diseases and to craft drug candidates with therapeutic windows that provide significant and durable clinical responses to patients. This integrated biology and chemistry approach enables us to drug known kinases that have been difficult to inhibit selectively and also identify, characterize and drug novel kinase targets. By focusing on genomically defined diseases, we believe that we will have a more efficient development path with a greater likelihood of success. Over the past three years, we have developed a robust small molecule drug pipeline in cancer and a rare genetic disease. One of our lead drug candidates is BLU-285, which targets KIT Exon 17 and PDGFRa D842V, abnormally active receptor tyrosine kinase mutants that are drivers of cancer and proliferative disorders. BLU-285 will initially be developed for patients with systemic mastocytosis, a myeloproliferative disorder of the mast cells, and a defined subset of patients with gastrointestinal stromal tumors, the most common sarcoma, or tumor of bone or connective tissue, of the gastrointestinal tract. Our other lead drug candidate is BLU-554, which targets FGFR4, a kinase that is aberrantly activated and is a driver of disease in a defined subset of patients with hepatocellular carcinoma, the most common type of liver cancer. Both drug candidates have demonstrated proof of concept in pre-clinical models and are expected to enter the clinic in mid-2015. We are also developing a drug candidate to target both RET, a receptor tyrosine kinase that can become abnormally activated when a portion of the gene that encodes RET is joined to part of another gene, and RET resistant mutants that we predict will arise from treatment with first generation therapies. We believe that our strategy will allow us to deliver transformative drugs to patients while building a fully-integrated biopharmaceutical company.

Since inception, our operations have focused on organizing and staffing our company, business planning, raising capital, establishing our intellectual property, building our platform including our proprietary compound library and new target discovery engine, identifying kinase drug targets and potential drug candidates, producing drug substance and drug product material for use in pre-clinical studies, and conducting pre-clinical studies, including Good Laboratory Practice, or GLP, toxicology studies. We expect to begin conducting clinical trials in mid-2015. We do not have any drugs approved for sale and have not generated any revenue from drug sales. We have funded our operations primarily through private placements of our convertible preferred stock and debt financing. From inception through December 31, 2014, we have raised an aggregate of $125.1 million of gross proceeds to fund our operations, of which $115.1 million was from the issuance of convertible preferred stock and $10.0 million was from a debt financing.

Since inception, we have incurred significant operating losses. Our net losses were $20.9 million and $40.3 million for the years ended December 31, 2013 and 2014, respectively. As of December 31, 2014, we had an accumulated deficit of $82.2 million. We expect to continue to

incur significant expenses and operating losses over the next several years. We anticipate that our expenses will increase significantly in connection with our ongoing activities, as we:

- continue Investigational New Drug application, or IND, enabling activities and commence the planned clinical development activities for our lead drug candidates BLU-285 and BLU-554;
- continue to discover, validate and develop additional drug candidates;
- maintain, expand and protect our intellectual property portfolio;
- hire additional research, development and business personnel; and
- incur additional costs associated with operating as a public company upon the closing of this offering.

Financial Operations Overview

Revenue

To date, we have not generated any revenue from drug sales and do not expect to generate any revenue from the sale of drugs in the near future. As of December 31, 2014, we had not generated any revenue from collaboration agreements, research fees, or license fees. In March 2015, we executed a research, development and commercialization agreement with Alexion Pharma Holding, or Alexion. The terms of this arrangement contain multiple deliverables. We evaluate multiple-element arrangements to determine (1) the deliverables included in the arrangement and (2) whether the deliverables represent separate units of accounting or whether they must be accounted for as a combined unit of accounting. We recognize arrangement consideration allocated to each unit of accounting when all of the revenue recognition criteria in Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 605 *Revenue Recognition*, or ASC 605 are satisfied for that unit of accounting.

In the future, we will seek to generate revenue from a combination of drug sales and additional strategic relationships we may enter into.

Expenses

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for our research activities, including our drug discovery efforts, and the development of our drug candidates, which include:

- employee-related expenses including salaries, benefits, and stock-based compensation expense;
- expenses incurred under agreements with third parties that conduct research and development, pre-clinical activities and manufacturing on our behalf;
- the cost of consultants;
- the cost of lab supplies and acquiring, developing, and manufacturing pre-clinical study materials; and
- facilities, depreciation, and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, insurance, and other operating costs.

Research and development costs are expensed as incurred. Costs for certain activities are recognized based on an evaluation of the progress to completion of specific tasks. Nonrefundable advance payments for goods or services to be received in the future for use in research and

development activities are deferred and capitalized. The capitalized amounts are expensed as the related goods are delivered or the services are performed.

The successful development of our drug candidates is highly uncertain. As such, at this time, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete the remainder of the development of these drug candidates. We are also unable to predict when, if ever, material net cash inflows will commence from our drug candidates. This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- establishing an appropriate safety profile with IND-enabling toxicology studies;
- successful enrollment in, and completion of clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our drug candidates;
- commercializing the drug candidates, if and when approved, whether alone or in collaboration with others; and
- continued acceptable safety profile of the drugs following approval.

A change in the outcome of any of these variables with respect to the development of any of our drug candidates would significantly change the costs and timing associated with the development of that drug candidate.

Research and development activities are central to our business model. Drug candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect research and development costs to increase significantly for the foreseeable future as our drug candidate development programs progress. However, we do not believe that it is possible at this time to accurately project total program-specific expenses through commercialization. There are numerous factors associated with the successful commercialization of any of our drug candidates, including future trial design and various regulatory requirements, many of which cannot be determined with accuracy at this time based on our stage of development. Additionally, future commercial and regulatory factors beyond our control will impact our clinical development programs and plans.

A significant portion of our research and development costs have been external costs, which we track on a program-by-program basis following nomination as a development candidate. Our internal research and development costs are primarily personnel-related costs, depreciation and other indirect costs. We do not track our internal research and development expenses on a program-by-program basis as they are deployed across multiple projects under development. The following table summarizes our external research and development expenses, by program following nomination as a development candidate, for the year ended December 31, 2014. Pre-development candidate expenses, unallocated costs and internal research and development costs have been

classified separately. We had not yet nominated any development candidates for the year ended December 31, 2013.

	Year Ended December 31, 2014
	(in thousands)
BLU-285 external costs	$ 5,290
BLU-554 external costs	3,437
Pre-development candidate expenses and unallocated costs	13,855
Internal research and development costs	9,262
	$ 31,844

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in executive, finance, accounting, business development, legal and human resources functions. Stock-based compensation includes expense associated with stock-based awards issued to non-employees, including directors for non-board related services. Other significant costs include facility costs not otherwise included in research and development expenses, legal fees relating to patent and corporate matters and fees for accounting and consulting services.

We anticipate that our general and administrative expenses will increase in the future to support continued research and development activities, including the initiation of our clinical trials and increased costs of operating as a public company. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, among other expenses. We also anticipate increased expenses associated with being a public company, including costs for audit, legal, regulatory and tax-related services, director and officer insurance premiums and investor relations costs.

Other Income (Expense)

Other income (expense) consists primarily of interest expense on amounts outstanding under a loan and security agreement, or Loan and Security Agreement, that we entered into with Silicon Valley Bank in May 2013, amortization of debt discount and the re-measurement gain or loss associated with the change in the fair value of the convertible preferred stock warrant liability.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make judgments and estimates that affect the reported amounts of assets, liabilities, revenues, and expenses and the disclosure of contingent assets and liabilities in our financial statements. We base our estimates on historical experience, known trends and events, and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. On an ongoing basis, we evaluate our judgments and estimates in light of changes in circumstances, facts and experience. The effects of material revisions in estimates, if any, will be reflected in the financial statements prospectively from the date of change in estimates.

While our significant accounting policies are described in more detail in the notes to our financial statements appearing elsewhere in this prospectus, we believe the following accounting policies used in the preparation of our financial statements require the most significant judgments and estimates.

Accrued Research and Development Expenses

As part of the process of preparing our financial statements, we are required to estimate our accrued expenses as of each balance sheet date. This process involves reviewing open contracts and purchase orders, communicating with our personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us monthly in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. The significant estimates in our accrued research and development expenses include the costs incurred for services performed by our vendors in connection with research and development activities for which we have not yet been invoiced.

We base our expenses related to research and development activities on our estimates of the services received and efforts expended pursuant to quotes and contracts with vendors that conduct research and development on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the research and development expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid accordingly. Non-refundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made.

Although we do not expect our estimates to be materially different from amounts actually incurred, if our estimates of the status and timing of services performed differ from the actual status and timing of services performed, it could result in us reporting amounts that are too high or too low in any particular period. To date, there have been no material differences between our estimates of such expenses and the amounts actually incurred.

Stock-based Compensation

We expense the fair value of employee stock awards, net of estimated forfeitures, adjusted to reflect actual forfeitures, over the requisite service period, which is typically the vesting period. Compensation cost for restricted stock awards issued to employees is measured using the grant date intrinsic value of the award, net of estimated forfeitures, and is adjusted to reflect actual forfeitures. We estimate the fair value of options granted to employees at the date of grant using the Black-Scholes option-pricing model that requires management to apply judgment and make estimates, including:

- expected volatility, which is calculated based on reported volatility data for a representative group of publicly traded companies for which historical information is available. Since we are privately held as of the date of these financial statements, we do not have relevant historical data to support our expected volatility. As such, we have used an average of

expected volatility based on the volatilities of a representative group of publicly traded biopharmaceutical companies. For purposes of identifying representative companies, we considered characteristics such as number of product candidates in early stages of product development, area of therapeutic focus, length of trading history, similar vesting provisions and a similar percentage of stock options that were in-the-money. The expected volatility was determined using an average of the historical volatilities of the representative group of companies for a period equal to the expected term of the option grant. We intend to consistently apply this process using the same representative companies until a sufficient amount of historical information regarding the volatility of our own share price becomes available or until circumstances change, such that the identified entities are no longer representative companies. In the latter case, more suitable, similar entities whose share prices are publicly available would be utilized in the calculation;

- risk-free interest rate, which is based on the U.S. Treasury yield curve in effect at the time of grant commensurate with the expected life assumption;

- expected term, which we calculate using the simplified method, as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment,* as we have insufficient historical information regarding our stock options to provide a basis for an estimate;

- fair value of the underlying common shares, which is determined using the option-pricing method, or OPM, or a hybrid of the probability-weighted expected return method, or PWERM, and the OPM, and was approved by our board of directors; and

- dividend yield, which is zero based on the fact that we never paid cash dividends and do not expect to pay any cash dividends in the foreseeable future.

We have computed the fair value of stock options at the date of grant using the following weighted-average assumptions:

	Year Ended December 31, 2013	Year Ended December 31, 2014
Risk-free interest rate	1.70% - 2.84%	1.70% - 2.14%
Expected dividend yield	0.00%	0.00%
Expected term (years)	6.1	6.1
Expected stock price volatility	88.96%	92.99%

Stock-based awards issued to non-employees, including directors for non-board related services, are accounted for based on the fair value of such services received or of the intrinsic value of equity instruments issued, whichever is more reliably measured. These stock-based awards are revalued at each vesting date and period-end. Stock-based awards subject to service-based vesting conditions are expensed on a straight-line basis over the vesting period. In accordance with the Accounting Standards Codification, or ASC, 718, stock-based awards subject to both performance-and service-based vesting conditions are recognized using an accelerated attribution model.

The amount of stock-based compensation expense recognized during a period is based on the value of the portion of the awards that are expected to vest. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The term "forfeitures" is distinct from "cancellations" or "expirations" and represents only the unvested portion of the surrendered option. We evaluate our forfeiture rate at each reporting period. Ultimately, the actual expense recognized over the vesting period will be for only those options that vest.

Common Stock Valuation

The following table presents the grant dates, numbers of underlying shares of common stock and the per share exercise prices of stock options granted between January 1, 2014 and the date of this prospectus, along with the fair value per share utilized to calculate stock-based compensation expense:

Date of Issuance	Type of Award	Number of Shares	Exercise Price of Award per Share(1)	Fair Value of Common Stock per Share on Grant Date	Per Share Estimated Fair Value of Award(2)(3)
3/6/14	Options	533,000	$ 0.34	$ 0.34	$ 0.26
5/6/14	Options	395,000	$ 0.34	$ 0.34	$ 0.26
7/30/14	Options	3,273,300	$ 0.34	$ 0.77(4)	$ 0.65
8/18/14	Options	1,932,500	$ 0.34	$ 0.77(4)	$ 0.66
10/8/14	Options	260,000	$ 0.34	$ 1.12(5)	$ 0.99
12/2/14	Options	350,000	$ 1.30	$ 1.30	$ 0.98
2/10/15	Options	2,564,600	$ 1.60	$ 1.60	$ 1.17
3/22/15	Options	585,000	$ 1.72	$ 1.72	$ 1.20

(1) The Exercise Price of Award per Share represents the fair value of our common stock on the date of grant, as determined by our board of directors, after taking into account our most recently available contemporaneous valuations of our common stock as well as additional factors that may have changed since the date of such contemporaneous valuation through the date of grant.

(2) The Per Share Estimated Fair Value of Award reflects the weighted average fair value of options as estimated at the date of grant using the Black-Scholes option-pricing model.

(3) For the purposes of recording stock-based compensation for grants of options to non-employees, we measure the fair value of the award on the service completion date (vesting date). At the end of each reporting period prior to completion of the services, we re-measure the value of any unvested portion of the award based on the then-current fair value of the award and adjust expense accordingly. Amounts in this column reflect only the grant date fair value of awards to non-employees.

(4) At the time of the option grants on July 30, 2014 and August 18, 2014, our board of directors determined that the fair value of our common stock of $0.34 per share calculated in the contemporaneous valuation as of January 6, 2014 reasonably reflected the per share fair value of our common stock as of the grant date. However, as described below, the fair value of common stock at the date of these grants was adjusted to $0.77 per share in connection with a retrospective fair value assessment for financial reporting purposes.

(5) At the time of the option grants on October 8, 2014, our board of directors determined that the fair value of our common stock of $0.34 per share calculated in the contemporaneous valuation as of January 6, 2014 reasonably reflected the per share fair value of our common stock as of the grant date. However, as described below, the fair value of common stock at the date of these grants was adjusted to $1.12 per share in connection with a retrospective fair value assessment for financial reporting purposes.

Determination of Fair Value of Common Stock on Grant Dates

We are a private company with no active public market for our common stock. Therefore, we have periodically determined the estimated per share fair value of our common stock at various dates using contemporaneous valuations performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, also known as the Practice Aid. Once a public

trading market for our common stock has been established in connection with the completion of this offering, it will no longer be necessary for us to estimate the fair value of our common stock in connection with our accounting for stock options and restricted stock, as the fair value of our common stock will be its trading price on The NASDAQ Global Market.

For financial reporting purposes, we performed common stock valuations retrospectively, with the assistance of a third-party specialist, as of January 6, 2014, July 30, 2014, November 10, 2014, February 1, 2015 and March 1, 2015, which resulted in valuations of our common stock of $0.34, $0.77, $1.30, $1.60 and $1.72 per share, respectively, as of those dates. In conducting the valuations, we considered all objective and subjective factors that we believed to be relevant for each valuation conducted, including our best estimate of our business condition, prospects and operating performance at each valuation date. Within the valuations performed, a range of factors, assumptions and methodologies were used. The significant factors included:

- the lack of an active public market for our common and our convertible preferred stock;
- the prices of shares of our convertible preferred stock that we had sold to outside investors in arm's length transactions, and the rights, preferences and privileges of that convertible preferred stock relative to our common stock;
- our results of operations, financial position and the status of our research and pre-clinical development efforts;
- the material risks related to our business;
- our business strategy;
- the market performance of publicly traded companies in the life sciences and biotechnology sectors, and recently completed mergers and acquisitions of companies comparable to us;
- the likelihood of achieving a liquidity event for the holders of our common stock, such as an initial public offering or sale of the Company given prevailing market conditions; and
- any recent contemporaneous valuations of our common stock prepared in accordance with methodologies outlined in the Practice Aid.

The dates of our contemporaneous valuations have not always coincided with the dates of our stock option grants. In determining the exercise prices of the stock options set forth in the table above, we considered, among other things, the most recent contemporaneous valuations of our common stock and our assessment of additional objective and subjective factors we believed were relevant as of the grant date. The additional factors considered when determining any changes in fair value between the most recent contemporaneous valuation and the grant dates included our stage of research and pre-clinical development, our operating and financial performance and current business conditions.

There are significant judgments and estimates inherent in the determination of the fair value of our common stock. These judgments and estimates include assumptions regarding our future operating performance, the time to completing an initial public offering, or IPO, or other liquidity event, the related company valuations associated with such events, and the determinations of the appropriate valuation methods. If we had made different assumptions, our stock-based compensation expense, net loss and net loss per share applicable to common stockholders could have been significantly different.

Common Stock Valuation Methodologies. Our contemporaneous and retrospective valuations were prepared in accordance with the guidelines in the Practice Aid, which prescribes several valuation approaches for determining the value of an enterprise, such as the cost, market and income approaches, and various methodologies for allocating the value of an enterprise to its capital structure and specifically the common stock.

Our common stock valuation as of January 6, 2014 was prepared utilizing OPM. Our common stock as of July 30, 2014, November 10, 2014, February 1, 2015 and March 1, 2015 were prepared utilizing a hybrid of PWERM and the OPM, which we refer to as the hybrid method.

Methods Used to Allocate Our Enterprise Value to Classes of Securities. In accordance with the Practice Aid, we considered the various methods for allocating the enterprise value across our classes and series of capital stock to determine the fair value of our common stock at each valuation date. The methods we considered consisted of the following:

OPM. The OPM treats common stock and convertible preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceeds the value of the liquidation preferences at the time of a liquidity event, such as a strategic sale or merger. The common stock is modeled as a call option on the underlying equity value at a predetermined exercise price. In the model, the exercise price is based on a comparison with the total equity value rather than, as in the case of a regular call option, a comparison with a per share stock price. Thus, common stock is considered to be a call option with a claim on the enterprise at an exercise price equal to the remaining value immediately after the convertible preferred stock liquidation preference is paid.

The OPM uses the Black-Scholes option-pricing model to price the call options. This model defines the securities' fair values as functions of the current fair value of a company and uses assumptions, such as the anticipated timing of a potential liquidity event and the estimated volatility of the equity securities.

The OPM backsolve approach was used to estimate enterprise value under the OPM. The OPM backsolve approach uses the OPM to derive the implied equity value for one type of equity security from a contemporaneous sale transaction involving another type of the company's equity securities. In the OPM, the assumed volatility factor was based on the historical trading volatility of our publicly traded peer companies. At each valuation date, a determination was made by us as to the appropriate volatility to be used, considering such factors as the expected time to a liquidity event and our stage of development.

To derive the fair value of the common stock using the OPM, the proceeds to the common stockholders were calculated based on the preferences and priorities of the convertible preferred stock and common stock. We then applied a discount for lack of marketability to the common stock to account for the lack of access to an active public market.

PWERM. Under the PWERM methodology, the fair value of common stock is estimated based upon an analysis of future values for the company, assuming various outcomes. The common stock value is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes available as well as the rights of each class of stock. The future value of the common stock under each outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate and probability weighted to arrive at an indication of value for the common stock.

Hybrid Method. The hybrid method is a PWERM where the equity value in one of the scenarios is calculated using an OPM. In the hybrid method used by us, two types of future-event scenarios were considered: an IPO and an unspecified liquidity event. The enterprise value for the IPO scenario was determined using a market approach. The enterprise value for the unspecified liquidity event scenario was determined using the OPM backsolve approach. The relative probability of each type of future-event scenario was determined based on an analysis of market conditions at

the time, including then-current IPO valuations of similarly situated companies, and expectations as to the timing and likely prospects of the future-event scenarios.

To determine the enterprise value for the IPO scenario, we used the guideline public company method, which includes comparisons to publicly traded companies in the biopharmaceutical industry that recently completed IPOs. That enterprise value was then discounted back to the valuation date at an appropriate risk-adjusted discount rate.

To derive the fair value of the common stock for each scenario under the hybrid method, the proceeds to the common stockholders were calculated based on the conversion rights and preferences of the convertible preferred stock. We then applied a discount for lack of marketability to the common stock to account for the lack of access to an active public market.

JOBS Act

In April 2012, the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, was enacted. Section 107 of the JOBS Act provides that an "emerging growth company," or EGC, can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. Thus, an EGC can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

We are in the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements under the JOBS Act. Subject to certain conditions, as an EGC, we intend to rely on certain of these exemptions, including without limitation, (i) providing an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act and (ii) complying with any requirement that may be adopted by the Public Company Accounting Oversight Board, or PCAOB, regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements, known as the auditor discussion and analysis. We will remain an EGC until the earlier of (i) the last day of the fiscal year in which we have total annual gross revenues of $1 billion or more; (ii) the last day of the fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission.

Results of Operations

Comparison of Years Ended December 31, 2013 and 2014

The following table summarizes our results of operations for the years ended December 31, 2013 and 2014, together with the changes in those items in dollars and as a percentage:

(in thousands)	Years ended December 31, 2013	2014	Dollar Change	% Change
Operating expenses:				
Research and development	$ 15,928	$ 31,844	$ 15,916	100%
General and administrative	5,072	7,890	2,818	56
Total operating expenses	21,000	39,734	18,734	89
Other income (expense):				
Other income (expense), net	226	(98)	(324)	(143)
Interest and other expense	(138)	(453)	(315)	(228)
Total other income (expense)	88	(551)	(639)	(726)
Net loss	$ (20,912)	$ (40,285)	$ (19,373)	(93)%

Research and Development Expense

Research and development expense increased by $15.9 million from $15.9 million for the year ended December 31, 2013 to $31.8 million for the year ended December 31, 2014, an increase of 100%. The increase in research and development expense was primarily attributable to the following:

- approximately $7.6 million for external IND-enabling pre-clinical and toxicology studies as well as the commencement of manufacturing activities for our two lead programs;
- approximately $4.9 million primarily due to an increase of 46% in headcount as our programs advance towards clinical trials as well as higher stock-based compensation expense, including expense associated with stock-based awards issued to non-employees;
- approximately $1.9 million in chemistry expenses related to the continued build out of our proprietary compound library, increased chemical analysis for our lead programs, and the general progression of our drug candidate pipeline; and
- approximately $1.2 million for *in vivo* study costs leading up to and following the nomination of BLU-285 and BLU-554 as lead programs.

General and Administrative Expense

General and administrative expense increased by $2.8 million from $5.1 million for the year ended December 31, 2013 to $7.9 million for the year ended December 31, 2014, an increase of 56%. The increase in general and administrative expense was primarily attributable to the following:

- approximately $1.8 million in increased personnel costs primarily due to an increase in stock-based compensation expense (including expense associated with stock-based awards issued to non-employees) and a 23% increase in headcount as we build the infrastructure to support the growth of the research and development organization and advance our lead programs towards clinical trials; and

- approximately $0.6 million in increase in professional fees including external legal fees, corporate communications and public relations costs.

We expect that our general and administrative expense will increase in future periods as we expand our operations and incur additional costs in connection with being a public company. These increases will likely include legal, auditing and filing fees, additional insurance premiums and general compliance and consulting expenses.

Other Income (Expense), Net

Other income (expense) decreased by $0.3 million to $(0.1) million for the year ended December 31, 2014 from $0.2 million for the year ended December 31, 2013. The decrease in other income (expense) was primarily related to the recognition of $0.2 million of other income in the year ended December 31, 2013 related to an award received from the Massachusetts Life Sciences Investment Tax Credit (MLSC) program. Other income was not recognized related to this program in the year ended December 31, 2014. Also contributing to the decrease in other income (expense) was the impact of the re-measurement loss associated with the change in the fair value of the convertible preferred stock warrant liability.

Interest and Other Expense

Interest and other expense increased by $0.3 million to $0.4 million for the year ended December 31, 2014 from $0.1 million for the year ended December 31, 2013. The increase in interest expense was primarily related to a higher outstanding principal balance under the Loan and Security Agreement for the year ended December 31, 2014.

Liquidity and Capital Resources

Sources of Liquidity

We have financed our operations to date primarily through gross proceeds of $115.1 million from private placements of our convertible preferred stock and proceeds of $10.0 million from a debt financing. As of December 31, 2014, we had cash and cash equivalents of $47.2 million.

We entered into the Loan and Security Agreement in May 2013. Under the terms of the Loan and Security Agreement, we borrowed $5.0 million. Loan advances accrue interest at a fixed rate of 2.0% above the Prime Rate. In November 2014, we amended the Loan and Security Agreement and borrowed an additional $5.0 million. Each loan advance included an interest only payment period. During 2014 we paid principal payments of $0.7 million on the first $3.0 million of advances. Principal payments on the remaining $7.0 million of advances will begin in January and December of 2015. We are required to pay a fee of 4.0% of the total loan advances at the end of the term of the loan. There are no outstanding financial covenants associated with the Loan and Security Agreement. As of December 31, 2014, we had $9.3 million in outstanding principal under the Loan and Security Agreement.

The term loan is collateralized by a blanket lien on all corporate assets, excluding intellectual property, and by a negative pledge of our intellectual property. The term loan contains covenants, including restrictions on dividends and default provisions. We have determined that the risk of subjective acceleration under the material adverse events clause is remote and therefore has classified the outstanding principal in current and long-term liabilities based on scheduled principal payments.

Cash Flows

The following table provides information regarding our cash flows for the years ended December 31, 2013 and 2014:

	Year Ended December 31,	
(in thousands)	**2013**	**2014**
Net cash used in operating activities	$ (19,025)	$ (35,400)
Net cash used in investing activities	(257)	(700)
Net cash provided by financing activities	17,992	81,353
Net increase (decrease) in cash and cash equivalents	$ (1,290)	$ 45,253

Net Cash Used in Operating Activities

The use of cash in all periods resulted primarily from our net losses adjusted for non-cash charges and changes in components of working capital. Net cash used in operating activities was $35.4 million during the year ended December 31, 2014 compared to $19.0 million during the year ended December 31, 2013. The increase in cash used in operating activities was due to an increase in net loss of $19.4 million for the year ended December 31, 2014 as compared to the year ended December 31, 2013.

Net Cash Used in Investing Activities

Net cash used in investing activities was $0.7 million during the year ended December 31, 2014 compared to net cash used in investing activities of $0.3 million during the year ended December 31, 2013. Net cash used in investing activities for the year ended December 31, 2014 and 2013 consisted of purchases of property and equipment.

Net Cash Provided by Financing Activities

Net cash provided by financing activities was $81.4 million during the year ended December 31, 2014 compared to $18.0 million during the year ended December 31, 2013. The cash provided by financing activities for the year ended December 31, 2014 was primarily the result of $74.9 million of net proceeds received from private placements of our convertible preferred stock and $7.0 million principal that we drew under the Loan and Security Agreement. The cash provided by financing activities for the year ended December 31, 2013 was primarily the result of $15.0 million of proceeds received from private placements of our convertible preferred stock and $3.0 million principal that we drew under the Loan and Security Agreement.

Funding Requirements

We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development of, initiate clinical trials of, and seek marketing approval for, our drug candidates. In addition, if we obtain marketing approval for any of our drug candidates, we expect to incur significant commercialization expenses related to drug sales, marketing, manufacturing and distribution to the extent that such sales, marketing and distribution are not the responsibility of potential collaborators. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or future commercialization efforts.

We expect that the net proceeds from this offering together with our existing cash and cash equivalents, including the $15.0 million upfront payment received in March 2015 upon execution of the agreement with Alexion, will enable us to fund our operating expenses and capital expenditure requirements through at least the end of 2016. Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of drug discovery, pre-clinical development, laboratory testing and clinical trials for our drug candidates;
- the scope, prioritization and number of our research and development programs;
- the costs, timing and outcome of regulatory review of our drug candidates;
- our ability to establish and maintain collaborations on favorable terms, if at all;
- the achievement of milestones or occurrence of other developments that trigger payments under any collaboration agreements we obtain;
- the extent to which we are obligated to reimburse, or entitled to reimbursement of, clinical trial costs under future collaboration agreements, if any;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the extent to which we acquire or in-license other drug candidates and technologies;
- the costs of securing manufacturing arrangements for commercial production; and
- the costs of establishing or contracting for sales and marketing capabilities if we obtain regulatory approvals to market our drug candidates.

Identifying potential drug candidates and conducting pre-clinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes many years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve drug sales. In addition, our drug candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of drugs that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

Until such time, if ever, as we can generate substantial drug revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds outside of those to be earned in connection with our agreement with Alexion. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise funds through additional collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or drug candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our drug development or future commercialization efforts or grant rights to develop and market drug candidates that we would otherwise prefer to develop and market ourselves.

Contractual Obligations

The following table summarizes our significant contractual obligations as of payment due date by period at December 31, 2014:

(Dollars in thousands)	Total	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 years
Operating lease commitments(1)	$ 18,784	1,453	4,717	5,004	7,610
Debt repayment(2)	$ 10,208	2,257	6,383	1,568	—

(1) Represents future minimum lease payments under our non-cancelable operating leases, which expire in October 2015 and October 2022, assuming occupancy in October 2015 on the lease entered into in February of 2015. The minimum lease payments above do not include any related common area maintenance charges or real estate taxes.

(2) Consists of payment obligations for principal and interest under the Loan and Security Agreement. As of December 31, 2014, we had $9.3 million in outstanding principal under the Loan and Security Agreement.

We enter into agreements in the normal course of business with contract research organizations for clinical trials and clinical supply manufacturing and with vendors for pre-clinical research studies, synthetic chemistry, and other services and products for operating purposes. We have not included these payments in the table of contractual obligations above since the contracts are cancelable at any time by us, generally upon 30 days prior written notice to the vendor. Milestone payments associated with our license agreements have not been included in the above table of contractual obligations as we cannot reasonably estimate if or when they will occur. As of the date of this prospectus, no milestone payments are likely to be due in 2015. Possible future payments under our license arrangements include up to $80,000 in payments to academic and research organizations upon the filing of an IND or FDA approval of a drug.

Off-Balance Sheet Arrangements

We did not have, during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under applicable Securities and Exchange Commission rules.

Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk related to changes in interest rates. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our investments, including cash and cash equivalents, are in a money market fund that invests in U.S. Treasury obligations.

We are also exposed to market risk related to changes in foreign currency exchange rates. We contract with vendors that are located Asia and Europe, which are denominated in foreign currencies. We are subject to fluctuations in foreign currency rates in connection with these agreements. We do not currently hedge our foreign currency exchange rate risk. As of December 30, 2013 and 2014, we had minimal or no liabilities denominated in foreign currencies.

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We do not believe that inflation had a material effect on our business, financial condition or results of operations during the years ended December 31, 2013 and 2014.

BUSINESS

We are a biopharmaceutical company focused on improving the lives of patients with genomically defined diseases driven by abnormal kinase activation. Our approach is to systematically and reproducibly identify kinases that are drivers of genomically defined diseases and to craft drug candidates with therapeutic windows that provide significant and durable clinical responses to patients. This integrated biology and chemistry approach enables us to drug known kinases that have been difficult to inhibit selectively and also identify, characterize and drug novel kinase targets. By focusing on genomically defined diseases, we believe that we will have a more efficient development path with a greater likelihood of success. Over the past three years, we have developed a robust small molecule drug pipeline in cancer and a rare genetic disease. One of our lead drug candidates is BLU-285, which targets KIT Exon 17 and PDGFRa D842V, abnormally active receptor tyrosine kinase mutants that are drivers of cancer and proliferative disorders. BLU-285 will initially be developed in for patients with systemic mastocytosis, a myeloproliferative disorder of the mast cells, and defined subsets of patients with gastrointestinal stromal tumors, the most common sarcoma, or tumor of bone or connective tissue, of the gastrointestinal tract. Our other lead drug candidate is BLU-554, which targets FGFR4, a kinase that is aberrantly activated and is a driver of disease in a defined subset of patients with hepatocellular carcinoma, the most common type of liver cancer. Both drug candidates have demonstrated proof of concept in pre-clinical models and are expected to enter the clinic in mid-2015. We are also developing a drug candidate to target both RET, a receptor tyrosine kinase that can become abnormally activated when the gene that encodes RET is joined to part of another gene, and RET resistant mutants that we predict will arise from treatment with first generation therapies. We believe that our strategy will allow us to deliver transformative drugs to patients while building a fully-integrated biopharmaceutical company.

Approved kinase drugs, such as imatinib, have demonstrated significant benefit to patients and small molecule kinase drugs achieved over $14 billion in 2013 sales. Despite this success, there is room for further improvement in kinase drug discovery and development. Many of the approved drugs are multi-kinase inhibitors that are not selective for disease drivers. This results in off-target toxicities that limit dose levels and target inhibition, thereby reducing efficacy. Further, patients who initially respond to a targeted kinase treatment often relapse due to the development of resistance mutations. Finally, as of 2014, kinase drugs approved by the U.S. Food and Drug Administration, or FDA, only target less than five percent of the 518 kinases that constitute the kinome. For many of the known kinases, there is a strong link between genetic alterations in a kinase and disease, including specific forms of cancer and rare genetic diseases. However, the function of the majority of the kinome is unknown. Taken together, this represents a substantial opportunity for developing novel and transformative drugs for cancer, rare genetic diseases and other disease areas.

To capitalize on the kinase opportunity, we built a platform that integrates a novel target discovery engine and a proprietary compound library. Our novel target discovery engine, which was developed entirely in-house under the direction of our chief scientific officer, combines our expertise in genomics, bioinformatics, and cell and structural biology to provide new insights into the biology of kinases as drivers of disease. To develop kinase drugs, we start by interrogating our proprietary compound library. Our library is a unique collection of novel small molecules rationally designed and developed entirely in-house by Blueprint Medicines' scientists as kinase inhibitors and enriched for drug-like properties. We do not owe any royalties or other fees to any parties associated with our novel target discovery engine and our proprietary compound library. Using this platform, we have produced a drug pipeline of several promising drug candidates that target genomically-defined patient subsets.

Our two lead programs targeting KIT Exon 17 and FGFR4 provide strong evidence of the power of our proprietary compound library. These targets have been well characterized in scientific literature as disease drivers, but have been challenging to inhibit selectively with small molecules. Our RET program provides evidence of the strength of our novel target discovery engine and proprietary compound library. Leveraging our expertise in structural and cell biology, we predicted future resistance mutations resulting from treatment with drugs with RET inhibitory activity and have crafted drug candidates that will be effective against RET and the RET resistant mutants.

BLU-285 is an orally available, potent and selective inhibitor of several activating mutations of KIT that occur in Exon 17, which encodes a portion of the tyrosine kinase domain. BLU-285 also potently and selectively inhibits PDGFRa D842V. Due to the high degree of structural similarity of the kinase domains of KIT and PDGFRa, BLU-285 is able to inhibit both KIT Exon 17 mutants and the PDGFRa D842V mutant with minimal inhibition of other kinases. BLU-285 is a highly targeted therapeutic candidate for genomically-selected patients with diseases driven by these mutations, including systemic mastocytosis, or SM, and genomically-defined patient subsets within gastrointestinal stromal tumors, or GIST, which are KIT and PDGFRa mediated diseases.

Imatinib, which is an inhibitor of KIT, is approved in SM and GIST and validates this kinase as a therapeutic target in these diseases. Imatinib also inhibits PDGFRa, which is a driver in a subset of GIST. However, a meaningful percentage of patients harbor mutations in KIT and PDGFRa that are not targeted by imatinib and fail to respond to treatment with the drug. We plan to initially develop BLU-285 for targeted patient populations that harbor these mutations and currently lack adequate treatments. BLU-285 has shown significant tumor regression in pre-clinical models of SM and GIST, which we believe to be highly predictive of clinical response. Investigational New Drug application, or IND, enabling studies are nearly completed, and we anticipate Phase 1 clinical trials will start in mid-2015. Expansion cohorts in these trials will include genomically-selected patients.

BLU-554 is an orally available, potent, selective and irreversible inhibitor of the kinase FGFR4. FGFR4 has historically been a challenging target to drug selectively given the closely related paralogs, proteins encoded by closely related genes, namely FGFR1-3. Aberrantly active FGFR4 signaling is a driver of disease in a subset of patients with hepatocellular carcinoma, or HCC, a disease with high unmet need and no approved genomically-targeted therapies. We aim to initially develop BLU-554 for a genomically-defined patient population within HCC with aberrantly active FGFR4 signaling. BLU-554 has shown significant anti-tumor activity in several different pre-clinical models of HCC with aberrantly active FGFR4 signaling, including a model which we believe to be highly predictive of clinical response. IND-enabling studies are nearly completed, and we anticipate Phase 1 clinical trials will start in mid-2015. The expansion cohorts in this trial will include genomically-selected patients.

Our third program targets RET fusions and predicted RET resistant mutants. By using our proprietary compound library, we have crafted drug candidates to selectively inhibit not only RET but also the RET resistant mutants. We believe we can provide a treatment that results in a more meaningful and durable clinical response by prospectively inhibiting RET and RET resistant mutants early in the treatment of the disease. Our research suggests that RET is a driver of disease in a broad set of cancers including non-small cell lung cancer, and cancers of the thyroid, colon and breast.

To execute on this opportunity, we have assembled a team of employees, board of directors and scientific founders rich in experience and capabilities in biology, chemistry and the business of drug discovery, development and commercialization. Many of our employees have participated on teams that uncovered innovative scientific findings and delivered highly impactful drugs to the marketplace. Our management team has broad capabilities and successful track records in oncology and rare genetic diseases through previous experience at Algeta ASA, Genzyme

Corporation, Millennium Pharmaceuticals, Inc., Novartis AG and Sanofi S.A. We were founded by an internationally-recognized scientific team, including Brian Druker, Nicholas Lydon and Charles Sawyers, who led the discovery and development of imatinib. The approval of imatinib revolutionized the treatment of chronic myelogenous leukemia by converting it from an aggressive and deadly cancer to a chronic, manageable disease. Our vision is to emulate the success of imatinib in a reproducible way by leveraging our platform to transform the lives of patients while building a fully-integrated biopharmaceutical company. We believe this experienced and diverse team is a key differentiator of our company.

Our initial investors included funds managed by Fidelity Biosciences and Third Rock Ventures. Additional blue chip investors participated in our Series B and C financings, including funds managed by (listed alphabetically) Biotechnology Value Fund, Casdin Capital, Cowen Investments, Nextech Invest, Partner Fund Management, Perceptive Advisors, RA Capital Management, Redmile Group, Sabby Capital, and Tavistock Life Science.

Our Mission

Blueprint Medicines makes kinase drugs to treat patients with genomically defined diseases. Led by a team of industry innovators, Blueprint Medicines integrates a novel target discovery engine and proprietary compound library to understand the genetic blueprint of cancer and craft highly selective therapies. This empowers Blueprint Medicines to rapidly develop patient-defined drug candidates aimed at eradicating cancer and other genomically defined diseases.

Our Principles

We maintain a culture of high integrity that embraces the following guiding principles to provide long-term benefits to patients and our stakeholders:

- ***Patients First*** — Maintaining intense focus on improving patients' lives.
- ***Thoughtfulness*** — Exploring creative approaches by daring to make well-thought-out decisions and owning the outcomes.
- ***Trust*** — Through collaboration and cooperation, building and maintaining a cohesive team that has mutual respect of different viewpoints, opinions and talents.
- ***Optimism*** — Pursuing transformative therapies that we believe will make a difference.
- ***Urgency*** — Solving complex problems rapidly, with attention and care.

Our Strategy

Our strategy was created to enable us to achieve our mission. The key tenants of our strategy include the following:

- ***Rapidly advance our lead drug candidates, BLU-285 and BLU-554, through clinical development.*** We expect to file INDs for these drug candidates in mid-2015, and to initiate Phase 1 clinical trials with expansion cohorts in genomically-selected patients in 2016. We are working with physicians and patient advocacy groups to rapidly identify and enroll patients most likely to respond to our therapies. In order to select patients most likely to respond to our therapies and rapidly confirm mechanistic and clinical proof of concept, we are building corporate collaborations to create companion diagnostics and to develop assays to measure target engagement, which is confirmation that a drug binds to its intended protein target *in vivo*, and early response. We expect these approaches to enable early determination of efficacy, allowing for clear decision points. With early and encouraging clinical results, we plan to apply for Breakthrough Therapy Designation which,

if granted, is intended to accelerate clinical development and expedite regulatory review and approval.

- ***Build a pipeline of kinase drugs for genomically-defined drivers of disease.*** We will continue to leverage our platform to systematically and reproducibly identify kinases that are drivers of genomically defined diseases and craft drug candidates that potently and selectively target these kinases. We aim to file one IND annually on average.

- ***Continuously invest in our proprietary platform to ensure future growth.*** We plan to enhance our target discovery engine to enable new insights into known kinase biology and to identify new kinase drug targets. We are focused on uncovering the potential role of the "kinases of unknown biology," or KUBs, which constitute the majority of the kinome. We plan to expand our proprietary compound library to cover close to 100% of the kinome and to increase the number of compound families that inhibit each kinase target.

- ***Maintain the Blueprint culture as we grow our business.*** We are focused on building an entrepreneurial organization that is patient-focused and science-driven and fosters a culture of creativity and innovation, hard work, and urgency for producing quality results. As we grow, we intend to continue hiring the most qualified individuals in biology, chemistry, clinical development and business, who fit within our culture and incorporate our entrepreneurial spirit. We also intend to continue fostering an environment that encourages tight integration across disciplines to ensure a seamless flow of ideas and information exchange.

- ***Evaluate strategic collaborations to maximize value.*** We currently retain 100% of the commercial rights for our oncology-focused programs, and have a rare genetic disease program that is the subject of our collaboration with Alexion Pharma Holding, or Alexion. We will evaluate additional collaborations that could maximize the value for our programs and allow us to leverage the expertise of strategic collaborators. We are also focused on engaging in collaborations to capitalize on our platform outside of our primary strategic focus area of cancer.

Our Focus — Highly Selective Kinase Drugs for Genomically Defined Diseases

Kinases are enzymes that function in many signaling pathways to regulate critical cellular functions. Abnormal activation of kinases has been shown to drive several key activities of cancer cells, including growth, survival, metabolism, cell motility and angiogenesis. Kinases may become abnormally activated through a number of mechanisms, including when: (1) a gene mutates creating a change in the resulting protein sequence; (2) chromosomes become rearranged creating a translocation or a fusion gene; or (3) excessive amounts of protein are created due to gene duplication or dysregulation leading to overexpression. There is a strong link between genetic alterations in kinases and many diseases, including specific forms of cancer and rare genetic diseases. Several kinases have been validated as oncogenes, which are genes that when altered can initiate and maintain cancer growth. Examples of oncogenes are BCR-ABL, EGFR, B-RAF and ALK, amongst many others. Ongoing genomic analyses of tumor data sets continue to identify new roles for kinases as drivers of disease.

As of 2014, there were 28 FDA-approved small molecule drugs that target less than five percent of the 518 kinases, of which all but two are indicated for cancer. The targets of these therapies include the overactive kinases produced by the known oncogenes as well as kinases that promote angiogenesis such as VEGFRs. Kinase inhibition continues to be a fruitful approach for cancer drug development. From 2012 to 2014, eleven of 28 FDA-approved cancer drugs were kinase inhibitors.

Despite these successes, several opportunities remain in kinase drug discovery and development.

- ***Identifying novel kinase drivers of disease.*** Very few kinases are the focus of approved drugs. Further, the function of the majority of the kinome still remains unexplored. Thus, there is substantial opportunity for developing novel and transformative therapies that target well-characterized but currently undrugged kinases as well as KUBs.

- ***Crafting very selective kinase drugs.*** Due to the high degree of homology between kinases, specific targeting of a given kinase can be challenging. Many of the approved kinase drugs inhibit multiple kinases and are referred to as multi-kinase inhibitors. Due to inhibition of off-target kinases, these multi-kinase inhibitors often give rise to severe unwanted effects, which can negatively impact the ability to dose patients at sufficient levels to achieve optimal efficacy. We believe increasing selectivity will minimize off-target toxicities and will improve efficacy by enabling higher dose levels and greater target inhibition. Further, combination therapies require that the drugs have non-overlapping toxicities, which could be minimized with more selective agents.

- ***Generating novel chemical matter required to target difficult-to-drug kinases.*** Novel chemical matter is needed to address targets that are known but not yet drugged. Pharmaceutical companies generally rely on known chemical families as the basis of drug discovery programs. Consequently, the vast majority of pharmaceutical companies have similar compound libraries. New approaches are needed to develop novel chemistry and differentiated libraries that can inhibit difficult-to-drug kinases in alternate ways.

- ***Overcoming resistance mediated by the alteration of kinase targets.*** Most approved kinase inhibitors provide only temporary disease control. Patients may relapse due to the emergence of resistance mutations. Novel approaches are needed to predict and inhibit resistant mutants thus providing more durable clinical responses.

Our Approach and Platform

Our approach is to systematically and reproducibly identify kinases that are drivers of genomically defined diseases and to craft drug candidates with therapeutic windows that provide significant and durable clinical responses to patients. This approach enables us to drug known kinase targets that have been difficult to inhibit selectively and also identify, characterize and drug novel kinase targets. By focusing on genomically defined diseases, we believe that we can quickly identify the patients most likely to respond, resulting in a more efficient development path with a greater likelihood of success.

Our approach is enabled by our drug discovery platform consisting of two pillars:

- a proprietary, highly-annotated library of novel compounds; and

- a novel target discovery engine, which is a comprehensive process that interrogates kinase biology from many angles using genomics, structural biology and cell biology.

Our proprietary compound library is a unique collection of small molecules designed and developed entirely in-house by Blueprint Medicines' scientists as kinase inhibitors and enriched for drug-like properties. We do not owe royalties or other fees to any parties associated with our novel target discovery engine and our proprietary compound library. This provides high-quality compounds to start kinase drug discovery programs and to use in identifying new kinase targets. The compounds were designed as kinase inhibitors without specific targets in mind, a design strategy that yielded a diversity of novel chemical structures that provide access to unique chemical matter. Each compound has been extensively characterized for binding to over 450 kinases and disease-relevant kinase mutants; the majority of known kinases are targeted by at least one

compound family. Thus, this "annotated" compound library provides high-quality medicinal chemistry starting points that enable quick-starts to drug discovery programs, avoiding the expense and time spent running high throughput screens. Notably, our proprietary compound library has yielded high quality chemical starting points for previously difficult-to-drug kinases. We plan to expand our proprietary compound library to cover close to 100% of the kinome and to increase the number of compound families that inhibit each kinase target.

We have established a novel target discovery engine, which was developed entirely in-house under the direction of our chief scientific officer, to provide new insights into the biology of kinases as drivers of disease and to identify new kinase drug targets. There are two aspects to the novel target discovery engine:

(1) ***Genomics Approach to Identify Novel Kinase Targets.*** Our high-capacity computing infrastructure allows not only storage of very large genomic databases but also rapid analyses of these data using proprietary algorithms developed by our bioinformaticians. For example, using our proprietary kinase fusion detection algorithm to analyze human tumor sequences, we have identified both novel kinase fusions and new disease indications for several known kinase fusions. These results were published in *Nature Communications* in 2014.

(2) ***Cell-based Screens to Identify Novel Kinase Targets.*** In this approach, a subset of the compounds in our proprietary compound library that exhibit remarkable potency and/or selectivity for one or a few kinases — our "tool compounds" — are used as probes in disease-relevant cell-based screens. Many of these tool compounds inhibit KUBs and thus allow us to evaluate potential roles for these relatively unexplored kinases in human disease.

Another aspect of our novel discovery engine is predicting resistance mutations. Through our structural and cell biology expertise, we predict mutations in kinases that render the enzyme insensitive to inhibition by an approved drug or compound in development. While treatment of patients with genomically-defined cancers with a targeted therapy typically results in a significant anti-tumor response, frequently the response is not durable. In tumors driven by an activated kinase, kinase reactivation via mutation is a common mechanism of resistance. Using our structural biology and computational chemistry expertise, we predict what changes in the kinase might result in a resistant enzyme and then confirm this prediction in a relevant cell culture model. We have and may continue to form collaborations to track emerging patterns of resistance in the clinic to confirm our predictions. We have used this process of predicting resistance to inform the design of several of our next generation drugs.

Our platform has already yielded a robust pipeline. KIT Exon 17 mutants, while known drivers of disease, were not selectively drugged successfully. We developed BLU-285 as a selective inhibitor of KIT Exon 17 mutants, an effort facilitated by our proprietary compound library. Aberrant signaling through FGFR4 is a known genomic driver in a subset of HCC patients. This kinase has been difficult to drug selectively due to the close homology of the FGFR family members. We developed BLU-554 as a selective inhibitor of FGFR4 to address the unmet medical need in this genomically-defined HCC patient population. Additionally, we applied our resistance mutation prediction algorithm in our RET program to identify mutant forms of the kinase that are resistant to multi-kinase inhibitors with RET activity. We have designed potent and selective RET inhibitors with activity against both the wild-type and mutant enzymes, another effort that is facilitated by our proprietary compound library. Finally, we are currently using and will continue to use our tool compounds to explore the role of KUBs in human disease with the goal of identifying novel kinase targets.

Our Development Programs

We have leveraged our platform to develop a robust drug pipeline of orally available, potent and selective small molecule kinase inhibitors that target genomic drivers in several cancers and a rare genetic disease. We currently own worldwide commercial rights to all of our oncology-focused drug candidates, and have a rare genetic disease program that is the subject of our collaboration with Alexion Pharma Holding, or Alexion. Our most advanced drug candidates are summarized in the table below.

Drug Candidates	Genomic Drivers	Initial Diseases	Stage of Development	Commercial Rights
BLU-285 (KIT Exon 17 inhibitor)	KIT D816V	SM	IND-enabling activities	Blueprint Medicines
	PDGFRa D842V	GIST	IND-enabling activities	
	KIT Exon 17 mutants	GIST	IND-enabling activities	
BLU-554 (FGFR4 inhibitor)	Aberrant FGFR4 signaling	HCC	IND-enabling activities	Blueprint Medicines
RET fusions and predicted RET resistant mutants	RET fusions*	Non-small cell lung cancer Other solid tumors	Lead optimization	Blueprint Medicines
Rare genetic disease target	Undisclosed	Rare genetic disease	Undisclosed	Alexion

* A fusion protein is encoded by a fusion gene, which is a gene in which a portion of one gene is joined to part of another gene. In the case of RET, a portion of the RET gene that encodes the kinase domain is joined to part of another gene. RET fusion proteins are always active and are thought to be drivers in several cancers.

One of our lead drug candidates is BLU-285, which targets KIT Exon 17 and PDGFRa D842V, for patients with SM and defined subsets of patients with GIST. Our other lead drug candidate is BLU-554, which targets FGFR4, for a defined subset of patients with HCC. Both drug candidates have shown proof of concept in pre-clinical models and are expected to enter the clinic in mid-2015. We are also developing a drug candidate to target both RET fusions and RET resistant mutants that we predict will arise from treatment with first generation therapies.

All of these programs target genomically-defined patient subsets. As we advance our drug candidates through clinical development, we will enrich our Phase 1 trials by selecting patients most likely to respond to our drug candidates to confirm mechanistic and clinical proof of concept. We are working with a number of clinical advisors, including David Schenkein, M.D., a former member of our board of directors, due to his medical experience as an oncologist and extensive drug development background. We are collaborating with corporate partners to create companion diagnostics and to develop assays to measure target engagement and early response. The table below lists the frequencies of each of the driver mutations targeted across multiple known diseases

and the corresponding estimated number of patients in the United States, France, Germany, Italy, Spain, the United Kingdom and Japan, or the Major Markets, worldwide:

Drug Candidates	Diseases	Estimated Number of Prevalent Patients*		Genomic Drivers	Frequency of Mutations (% of Patients)
		United States	Total Major Markets		
BLU-285	SM	1,700 advanced SM 6,300 indolent SM	4,500 advanced SM 16,000 indolent SM	KIT D816V	Greater than or equal to 94%
		Total: 8,000	Total: 20,000	PDGFRa D842V	5 - 6% of primary GIST
	GIST**	1L: 3,000 2L: 2,700 3L: 2,300	1L: 8,000 2L: 7,000 3L: 5,000	KIT Exon 17	1L: <1% 2L: 23% 3L: 100%
BLU-554	HCC**	16,000 first line 5,000 second line	60,000 first line 20,000 second line	Aberrant FGFR4 signaling	Up to 30%

* The prevalence of HCC in China represents an additional opportunity for BLU-554 and is not included in these estimates.
** Prevalence represents metastatic and unresectable populations.

KIT Inhibitor Program

Overview

BLU-285 is an orally available, potent and selective inhibitor of several activating mutations of KIT that occur in Exon 17, which encodes a portion of the tyrosine kinase domain. BLU-285 also potently and selectively inhibits PDGFRa D842V. Due to the high degree of structural similarity of the kinase domains of KIT and PDGFRa, BLU-285 is able to inhibit both KIT Exon 17 mutants and the PDGFRa D842V mutant potently and selectively with minimal inhibition of other kinases.

Kinome tree locations of KIT and PDGFRa illustrating close structural similarity between these kinases. *Kinome illustration reproduced courtesy of Cell Signaling Technology, Inc., or CSTI, (www.cellsignal.com). Each branch of the dendogram represents an individual human kinase. The foregoing website is maintained by CSTI, and Blueprint Medicines is not responsible for its content.*

BLU-285 is a highly targeted therapeutic candidate for genomically-selected patients with diseases driven by these mutations, including SM and genomically-defined patient subsets within GIST. We plan to initially develop BLU-285 for these targeted patient populations, which currently lack adequate treatments. BLU-285 has demonstrated tumor regression in pre-clinical models of GIST and SM, including activity in aggressive and patient-derived xenograft models that we believe to be highly predictive of clinical response. This provides clear rationale to develop BLU-285 in genomically-defined patient populations with tumors that harbor mutations in KIT Exon 17 or in PDGFRa and are most likely to respond.

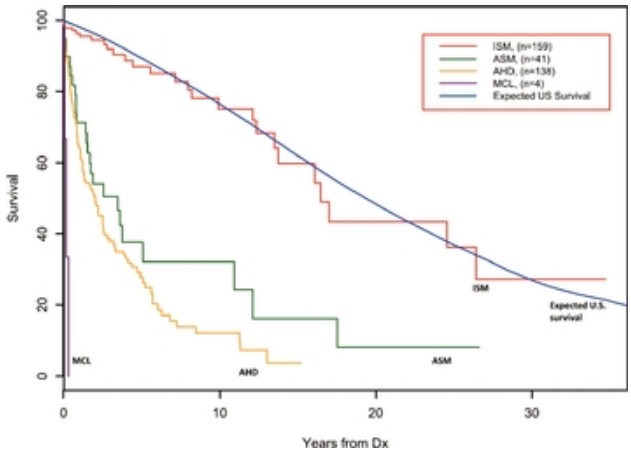
We plan to initially develop BLU-285 for SM and GIST secondary mutations in KIT Exon 17 and for GIST with the PDGFRa D842V mutation. IND-enabling studies are nearly completed, and we anticipate clinical trials will start in mid-2015. We may expand opportunistically into additional indications including a subset of acute myelogenous leukemia, or AML, patients who harbor the D816V mutation and other diseases driven by KIT Exon 17.

Systemic Mastocytosis (SM)

SM Disease Background

SM is a myeloproliferative disorder of the mast cells, the key effector cells of allergic inflammation, which have several physiologic roles including wound healing, regulation of vascular and epithelial permeability and immune cell recruitment. In myeloproliferative diseases, the bone marrow overproduces certain types of red blood cells, platelets, or white blood cells. The signature of SM is the accumulation of mast cell clusters in the bone marrow. In advanced forms of SM, abnormal mast cells may also accumulate in the liver, spleen, gastrointestinal tract and bones. Mast cell activation can lead to symptoms ranging from a skin rash to hives, fever and anaphylaxis, while mast cell accumulation in advanced cases of SM can eventually lead to organ dysfunction and failure.

Patients with SM are usually diagnosed in adulthood. The diagnosis involves a complex diagnostic algorithm that begins with confirmation of SM and subsequently categorizes patients into indolent or advanced subtypes of disease, a classification that has prognostic significance as shown below. Patients with indolent SM, or ISM, have a normal life expectancy; the primary burden of disease is the range of often unpredictable and debilitating symptoms due to mast cell activation. Advanced SM includes three subsets with increasingly severe impact on life expectancy: aggressive SM, or ASM, SM with associated clonal hematological non-mast cell lineage diseases, or SM-AHNMD, and mast cell leukemia, or MCL. The advanced forms of SM have a median overall survival of three to five years and are characterized by prominent organopathy and dysfunction, as well as symptoms of mast cell activation. Smoldering SM, or SSM, previously listed as a subcategory of ISM, is increasingly considered as a variant of advanced SM. While SSM is not known to affect life expectancy, it has a greater degree of bone marrow infiltration, myeloproliferation, and/or presents with an enlarged liver and bears a greater risk of progression to ASM, SM-AHNMD or MCL.



Overall survival of SM patients. Republished with permission of the American Society of Hematology, from "How I treat patients with indolent and smoldering mastocytosis", A. Pardanani, *Blood*, 121(16):3085 - 3094 (2013); permission conveyed through Copyright Clearance Center, Inc.

Population studies, including a population-based epidemiology study sponsored by Blueprint Medicines, based on the Danish National Health Registry, estimate the incidence of all subtypes of SM from 0.5 to 1/100,000 new patients per year. This represents approximately 3,200 new patients diagnosed per year in the United States. Of all SM patients, ISM accounts for 50-80% and advanced SM accounts for the remaining 20-50% of patients.

The current treatment paradigm for SM varies by disease subtype. With the exception of imatinib, which does not address more than 94% of patients with the KIT D816V mutation, there are no approved therapies. For patients with advanced forms of SM, treatments include interferon-alpha or cytoreductive agents to reduce mast cell burden or treatments aimed at addressing the associated blood disorder. There are no disease-modifying agents and patients with advanced SM inevitably progress, with a three to five-year overall survival prognosis. We believe there are approximately 4,500 addressable patients with advanced forms of SM in the Major Markets.

For ISM, management is symptom-directed and includes avoidance of triggers of mast cell activation (such as insect stings). Treatments for ISM include histamine blockers, cromolyn, epinephrine, and, in cases of refractory patients, cytoreductive agents. Within ISM, key opinion leaders see the greatest degree of unmet need for the fraction of patients who have a heavy symptom burden that current therapies fail to address. We believe there are approximately 16,000 ISM patients in the Major Markets.

KIT Driver Mutations in SM

In all subtypes of SM, the mast cells of more than 94% of patients display a mutation at the D816V position in KIT that activates the kinase. KIT D816V status is routinely assessed as part of the workup in SM diagnosis.

KIT signaling is needed for normal blood cell production, including the differentiation and survival of mast cells. In patients with SM, abnormal mast cells bearing the KIT D816V mutation undergo constitutive kinase activation, leading to continuous survival and proliferative signals. Rare cases of SM have been found where alternative mutations in KIT occur that are responsive to imatinib; in these cases, treatment with imatinib can reduce mast cell burden in the bone marrow and other organs and improve symptoms, thereby clinically validating KIT as a therapeutic target for SM.

BLU-285 Pre-clinical Development in SM

We conducted comprehensive biochemical and cellular experiments to characterize the potency and selectivity of BLU-285. BLU-285 potently inhibits KIT D816V *in vitro* (IC_{50}, or the compound concentration at which 50% of the activity is inhibited relative to control lacking compound, = 0.27 nM). In contrast, imatinib inhibits KIT D816V at least 10,000-fold less potently (IC_{50} > 8,000 nM). In several cellular models driven by activated KIT mutant proteins, BLU-285 potently inhibits signaling of the oncogenic KIT mutant protein, as measured by inhibition of KIT autophosphorylation and inhibition of cellular proliferation. In HMC 1.2 cells, a human mast cell leukemia model driven by the KIT D816V mutation, BLU-285 potently inhibits signaling of the mutant KIT protein as measured by inhibition of KIT autophosphorylation (IC_{50} = 4 nM). In contrast, imatinib inhibits KIT autophosphorylation at least 2,000-fold less potently. In P815 cells, a mouse mastocytoma model driven by an Exon 17 mutation, BLU-285 potently inhibits signaling of the mutant KIT protein as measured by inhibition of KIT autophosphorylation (IC_{50} = 22 nM) as well as

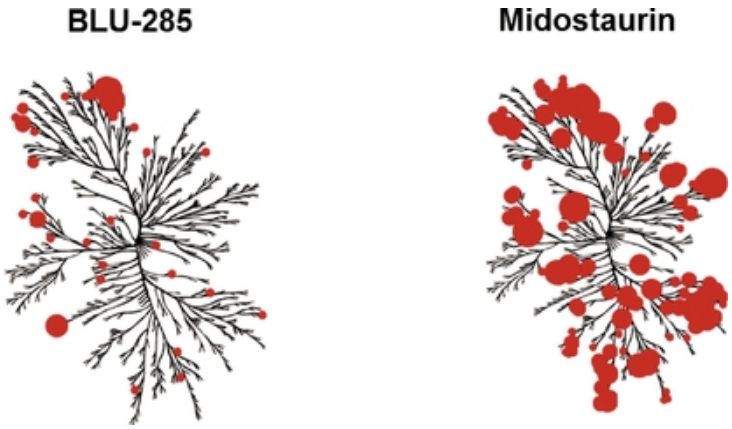
cellular proliferation (IC_{50} = 202 nM). By comparison, imatinib shows considerably lower cellular potency in the P815 model.

KIT D816V Inhibition

	Biochemical	Cellular		
IC_{50} (nM)	KIT D816V	HMC1.2 P-KIT	P815 P-KIT	P815 Prolif.
BLU-285	0.27	4	22	202
imatinib	8,150	9,229	1,235	2,811

Potency of BLU-285 against KIT D816 and other Exon 17 mutations compared to imatinib. The inhibitory potencies of BLU-285 and imatinib against the KIT D816V mutant protein were evaluated in an *in vitro* enzyme activity assay. The inhibitory potencies of BLU-285 and imatinib were also evaluated in two cell lines harboring KIT Exon 17 mutations, HMC 1.2 cells and P815 cells. Inhibition of KIT cellular signaling was measured by inhibition of KIT autophosphorylation (P-KIT). Inhibition of cellular proliferation was also measured in P815 cells.

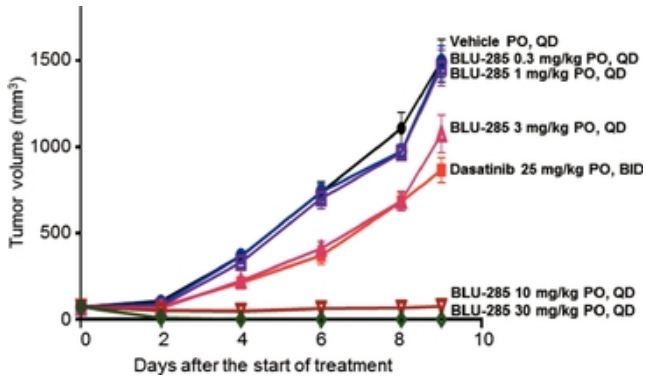
The selectivity of BLU-285 was further evaluated by profiling BLU-285 at a concentration of 3 µM across a panel of over 450 kinases and disease-relevant kinase mutants using KINOME*scan* methodology. BLU-285 demonstrated exquisite selectivity for KIT Exon 17 mutant proteins and PDGFRa D842V in this assay, binding significantly (greater than 90% inhibition relative to control) to only 12 other kinases. We also profiled midostaurin, a multi-kinase inhibitor with KIT D816V inhibitory activity (an inhibitory activity not present in imatinib), that is being studied in clinical trials of SM patients. Midostaurin demonstrated significant binding (greater than 90% inhibition relative to control at 3 µM) to 118 kinases, as indicated by the number of dots on the kinome tree shown below. We believe multi-kinase inhibitors that demonstrate *in vitro* activity against KIT D816V may not achieve full inhibition of KIT D816V in the clinic due to poor selectivity and the resulting dose limitations imposed by off-target toxicities.



Kinome selectivity of BLU-285 and a reference compound that has been studied in clinical trials of SM. Compounds were screened at 3 µM against a panel of over 450 kinases and disease-relevant mutants. Each branch of the dendogram represents an individual human kinase. Kinases bound by the compound are indicated by red circles on the kinome tree. The degree of binding corresponds to the size of the circle. *Kinome illustration reproduced courtesy of CSTI (www.cellsignal.com). The foregoing website is maintained by CSTI, and Blueprint Medicines is not responsible for its content.*

We demonstrated significant anti-tumor efficacy with BLU-285 in a P815 mouse mastocytoma xenograft model where tumor growth is driven by a KIT Exon 17 mutation. BLU-285 administered orally for nine days resulted in robust and dose-dependent growth inhibition of P815 tumors. At a

dose of 30 mg/kg once daily, a well-tolerated dose, BLU-285 caused tumor regression. We observed a correlation between the concentration of BLU-285 in mouse plasma and the level of phosphorylated KIT in the tumor, which is a measure of KIT signaling activity. At a dose of 30 mg/kg, the level of phosphorylated KIT was inhibited by 90% over the 24 hour dosing period. This is an expected consequence of inhibiting KIT signaling. This correlation between BLU-285 plasma concentration, the level of phosphorylated KIT protein and anti-tumor efficacy supports the observation that anti-tumor response is due to inhibition of KIT signaling. The anti-tumor efficacy of dasatinib, a multi-kinase inhibitor with KIT D816V activity, which has been studied in clinical trials of SM patients, was also evaluated in this study. Dasatinib dosed twice daily at 25 mg/kg, a dose that resulted in significant body weight loss in mice, had only a modest effect on tumor growth.



BLU-285 elicits dose-dependent tumor regression in a mouse mastocytoma xenograft model of SM.

To emulate the systemic nature of the disease, we developed an aggressive systemic mouse model of SM. In this model, whereas vehicle-treated animals were terminated on day seven due to high disease burden, treatment with BLU-285 enabled significant disease control such that animals treated with BLU-285 at 30 mg/kg were terminated on day 22.

We are completing the 28-day GLP toxicology studies, which are expected to identify the dose limiting toxicity and anticipated first-in-human dose for BLU-285.

BLU-285 Clinical Development Plan in SM

We plan to file an IND for BLU-285 in SM in mid-2015, initiate our Phase 1 clinical trial in mid-2015 and open expansion cohorts in 2016. Our Phase 1 clinical trial will test the safety and tolerability in multiple ascending doses in patients with advanced SM, including ASM, SM-AHNMD and MCL, with the goal of establishing a maximum tolerated dose, or MTD, or a recommended dose if the MTD is not achieved. All patients will be tested retrospectively for KIT D816V mutational status. We will then open SM subtype-specific expansion cohorts for ASM patients, SM-AHNMD patients, and MCL patients. The key primary endpoints of the trial are to determine safety, tolerability and the MTD of BLU-285 in SM. Secondary endpoints include assessment of the pharmacokinetic profile of BLU-285, assessment of response rate by the International Working Group-Myeloproliferative Neoplasms Research and Treatment, or IWG-MRT, criteria and changes in quality of life.

Early signs of biological activity will be assessed as measured by changes in serum tryptase and KIT D816V allele burden. Serum tryptase is a recognized marker of mast cell burden and reduction of serum tryptase is one component of the IWG-MRT response criteria. In the expansion cohorts, clinical efficacy will be assessed by measuring overall response rate using IWG-MRT response criteria for SM, or a modified version thereof. In addition, change in total symptom score will be assessed to determine the effect of BLU-285 on symptom burden. As there is currently no validated patient reported outcomes tool for SM, we are collaborating with a health research outcomes group to develop a disease-specific tool to measure changes in total symptom score. We anticipate conducting additional trials to support development in SSM and ISM patients with high symptom burden who are refractory to current therapies.

We are working with patient advocacy groups relevant to SM in order to:

- raise awareness of our upcoming clinical trial;
- build a patient registry to identify patients for rapid enrollment; and
- incorporate the SM patient perspective into our ongoing activities.

Gastrointestinal Stromal Tumor (GIST)

GIST Disease Background

GIST is the most common sarcoma of the gastrointestional tract, or GI tract. Tumors arise within cells in the wall of the GI tract and occur most often in the stomach or small intestine. Most patients are diagnosed between the ages of 50-80 with diagnosis triggered by GI bleeding, incidental findings during surgery or imaging, or in rare cases acute presentation due to tumor rupture or GI obstruction. The standard workup at primary presentation includes pathologic confirmation and imaging to assess extent of disease.

The GIST treatment paradigm has advanced dramatically over the past 13 years. Patients diagnosed with localized disease undergo potentially curative tumor resection, while imatinib is given to high risk resected patients to prolong the time to recurrence. Unresectable or metastatic patients typically receive imatinib, followed by sunitinib and regorafenib as the disease progresses.

Patients with PDGFRα D842V-driven GIST have great unmet medical need, as no approved medical therapies are effective and progression can occur within as little as three months. The PDGFRα D842V mutation is found in 5-6% of frontline unresectable or metastatic GIST patients. We believe there are up to 500 addressable patients with PDGFRα D842V-driven, unresectable or metastatic GIST in the Major Markets.

For patients with KIT-driven GIST, current medical therapies slow the course of disease but progression is inevitable. Up to 50% of patients treated with frontline imatinib relapse within approximately 18 months. Of the secondary resistance mutations that lead to relapse, mutations in KIT Exon 17 (including D816 and other mutations) are not addressed by current therapies. KIT Exon 17 mutations are rare in treatment-naïve patients (<1%); however selective pressure due to treatment with imatinib and sunitinib causes KIT Exon 17 mutations to emerge with increasing frequency (approximately 23% of second line imatinib-resistant patients and 100% of third line imatinib/sunitinib resistant patients). These mutations confer resistance to current treatments. A therapy that effectively suppresses these mutants and that is potentially amenable to combinations with existing agents is needed. We believe there are approximately 6,600 addressable patients in the Major Markets with KIT Exon 17 secondary mutations that have led to disease progression during treatment with imatinib or sunitinib. Finally, we believe frontline combinations with imatinib will have the potential to dramatically increase the duration of therapy. We estimate there are

approximately 20,000 addressable patients in the Major Markets with unresectable or metastatic frontline GIST.

KIT Primary, KIT Exon 17 and PDGFRa Driver Mutations in GIST

GIST is a tumor type that depends on continued signaling of a single, aberrantly active kinase. Most GISTs result from primary mutations in KIT or PDGFRa. Up to 80% of patients have KIT-driven GIST. Imatinib effectively inhibits most of KIT primary mutations; however over time, secondary mutations occur elsewhere in the KIT gene that lead to kinase activation despite the presence of imatinib, thereby leading to disease progression. There is currently no therapeutic option for patients with PDGFRa-driven GIST. The most common mutation is PDGFRa D842V, found in approximately 5-6% of frontline unresectable or metastatic GIST patients. PDGFRa has a very similar active site structure to KIT and the PDGFRa D842V mutation is homologous to KIT D816V. As in the case of KIT D816V mutant receptors, PDGFRa D842V mutations confer ligand-independent constitutive signaling of the mutant PDGFRa kinase.

BLU-285 Pre-clinical Development in GIST

We have conducted comprehensive pre-clinical experiments to characterize the potency and selectivity of BLU-285. BLU-285 potently inhibits PDGFRa D842V *in vitro* (IC_{50} = 0.24 nM). In contrast, imatinib inhibits PDGFRa D842V at least 3,000-fold less potently (IC_{50} = 759 nM). In a cellular model driven by an activated PDGFRa D842V mutant protein, BLU-285 potently inhibits signaling of the oncogenic PDGFRa mutant protein as measured by inhibition of PDGFRa autophosphorylation (IC_{50} = 30 nM). By comparison, imatinib shows at least 100-fold lower potency in the cellular model (IC_{50} = 3,145 nM). The selectivity of BLU-285 has been discussed with the KINOME*scan* data shown in the section on SM.

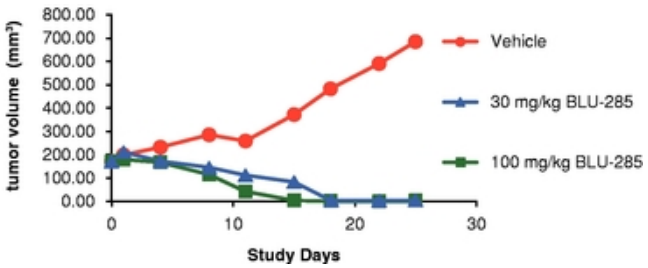
PDGFRa D842V Inhibition

	Biochemical	Cellular
IC_{50} (nM)	PDGFRα D842V	P-PDGFRα D842V
BLU-285	0.24	30
imatinib	759	3,145

Inhibitory potency of BLU-285 compared to imatinib. The inhibitory potency of BLU-285 and imatinib against PDGFRa D842V was evaluated in an *in vitro* enzyme activity assay and in a cellular model driven by an activated PDGFRa D842V mutant protein.

We have demonstrated significant anti-tumor efficacy with BLU-285 in an imatinib resistant patient-derived xenograft model with a KIT Exon 17 resistance mutation, similar to what is found in

relapsed/refractory KIT-driven GIST as shown below. BLU-285 administered orally for 25 days resulted in tumor regression at both tested doses.



BLU-285 elicits dose-dependent tumor regression in a patient-derived GIST xenograft model with a KIT Exon 11 mutation and a KIT Exon 17 resistance mutation.

In addition, we have developed an understanding of the biology that will inform the development of combinations to address these resistance mutations. We performed a comprehensive analysis of these secondary KIT Exon 17 mutations, analyzing the literature and unpublished data from opinion leaders to understand which mutations occur and to quantify their frequency in the clinical setting. We also conducted a series of *in vitro* biochemistry experiments using compounds from our proprietary compound library and currently available therapies (imatinib, sunitinib and regorafenib) to interrogate their activity against the range of KIT Exon 17 mutations. The result is a deep understanding of the spectrum of activity of BLU-285, additional compounds from our proprietary compound library and available therapies across the range of possible mutations. This will enable combination therapy development to address KIT Exon 17 secondary mutations.

BLU-285 Clinical Development Plan for GIST

We plan to file an IND for BLU-285 in GIST in mid-2015, initiate our Phase 1 clinical trial in mid-2015 and open expansion cohorts in 2016. The Phase 1 clinical trial will test the safety and tolerability of BLU-285 in multiple ascending doses in patients with GIST, with the goal of establishing an MTD, or a recommended dose if the MTD is not achieved. All patients will be tested retrospectively for KIT Exon 17 and PDGFRa D842V mutational status. Once the MTD is achieved, or a recommended dose is established, we will open expansion cohorts for patients with relapsed GIST carrying the PDGFRa D842V mutation and KIT Exon 17 mutations. The key primary endpoints of the trial are to determine safety, tolerability and the MTD of BLU-285 in GIST. Secondary endpoints include assessing response rate by Response Evaluation Criteria In Solid Tumors, or RECIST, criteria commonly used to measure clinical responses in solid tumors, and allelic burden using circulating tumor DNA.

In the expansion cohorts, clinical efficacy will be assessed using MRI/CT imaging to assess overall response rate by RECIST criteria. Once the tolerability and biological activity of BLU-285 monotherapy is understood, we anticipate conducting additional studies with BLU-285 in combination with other therapies selected to address the broadest possible spectrum of mutations in GIST, including a potential front line study of BLU-285 with imatinib.

We are working with patient advocacy groups relevant to GIST in order to:

- raise awareness of our upcoming clinical trial;
- identify and use existing patient registries to identify patients for rapid enrollment; and
- incorporate the GIST patient perspective into our ongoing activities.

FGFR4 Inhibitor Program

Overview

BLU-554 is an orally available, potent, selective and irreversible inhibitor of the kinase FGFR4. FGFR4 functions as a receptor whose aberrant activation is a driver of HCC. FGFR4 belongs to a family of highly homologous receptors, which include FGFR1-4. BLU-554 targets FGFR4, while sparing the other three FGFR paralogs, and demonstrates exquisite kinome selectivity. Pre-clinical *in vitro* and *in vivo* efficacy data provides a strong rationale for the development of BLU-554 for the subset of HCC patients whose tumors are driven by aberrant FGFR4 signaling. Based on a meta-analysis of publicly available HCC genomic datasets, we estimate that up to 30% of patients with HCC have tumors with aberrantly activated FGFR4 signaling.

HCC Disease Background

Liver cancer is the second leading cause of cancer-related deaths worldwide, with HCC accounting for most liver cancers. The highest incidence of HCC occurs in regions with endemic hepatitis B virus, or HBV, including Southeast Asia and sub-Saharan Africa. In the United States, HCC is the fastest rising cause of cancer-related death; over the past two decades, the incidence of HCC has tripled while the five-year survival rate has remained below 12%.

Cirrhosis is a key risk factor for HCC; the disease etiology varies by geography with the common theme of chronic conditions that lead to cirrhosis. In North America, the main risk factors for cirrhosis are infection with hepatitis C virus, or HCV, followed by HBV infection, alcohol consumption and nonalcoholic steatohepatitis. In Europe, the main risk factors for cirrhosis are HCV, HBV and alcohol consumption. In Southeast Asia and sub-Saharan Africa, the major risk factor is chronic HBV infection.

The diagnosis is typically made in adults, peaking around age 70. Disease management is complicated by concurrent liver disease, which often compromises liver function in these patients. Patients are staged depending on extent of liver disease, performance status and liver function status; these factors guide treatment selection. The stage distribution at diagnosis varies by region. For example, countries such as Taiwan and Japan with active national screening programs tend to diagnose many more patients in the early stages of disease. There are currently no treatments for genomically-defined patient subgroups in HCC.

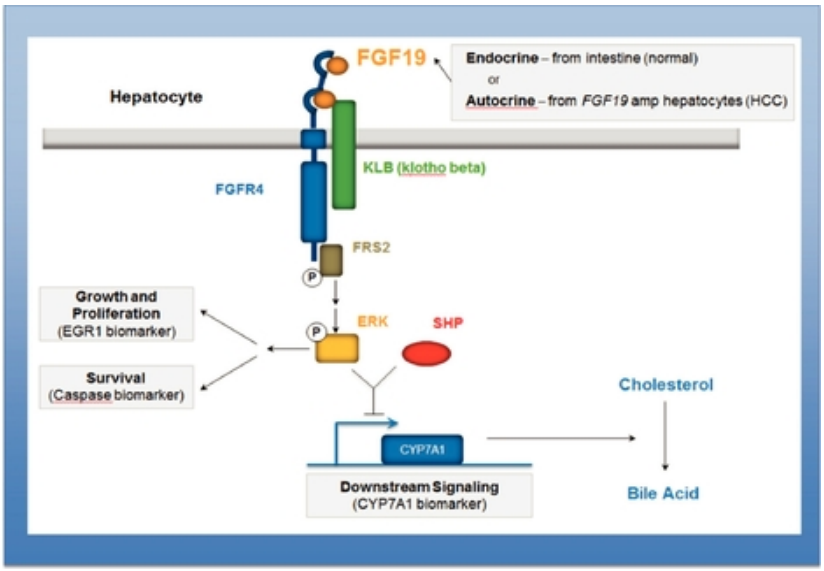
The HCC treatment paradigm has advanced incrementally over the past decade. Patients diagnosed at an early stage receive potentially curative transplant, resection or ablative therapies. Intermediate to advanced stage patients receive high-dose chemotherapy delivered directly to the liver (transarterial chemoembolization) and ultimately sorafenib, the only approved systemic therapy for HCC, which became broadly available in the late 2000s. Sorafenib is a multi-kinase inhibitor that targets VEGFR and many other kinases and exhibits anti-angiogenic effects. In a pivotal trial conducted primarily in European Union and U.S. sites, sorafenib improved median overall survival by nearly three months and 2% of patients responded. In clinical practice, patients often require dose modifications or discontinue therapy due to tolerability issues. There is a clear need for medical therapies with a favorable risk-benefit profile.

FGFR4 as a Driver in HCC

The link between aberrant FGFR4 signaling and HCC was first established when an amplicon, a region of replicated DNA, that includes FGF19, the ligand that activates FGFR4, was identified in 6-12% of HCC patients. The physiologic role of the receptor, FGFR4, and its ligand, FGF19, is to regulate bile acid metabolism in hepatocytes. FGF19 is normally produced in the small intestine and signals to hepatocytes through an endocrine mechanism. FGF19 forms an active signaling

complex together with FGFR4 and its co-receptor Klotho-b. Signaling of the active complex leads to decreased CYP7A1 transcription with a resultant decrease in bile acid synthesis, as well as increased growth, proliferation and survival signals.

FGFR4 Signaling in the Liver



Subsequent data suggest that FGFR4 signaling is a driver in a subset of HCC patients in whom the pathway is aberrantly activated. In these patients, FGF19 is overexpressed in hepatocytes (which do not normally express FGF19), leading to autocrine signaling and tumor growth. Pre-clinical experiments in a genetically engineered mouse model demonstrate that exogenous FGF19 expression is sufficient to induce liver tumor growth and that tumorigenesis is dependent on FGFR4. The three elements that constitute an active FGFR4 signaling complex, FGF19, FGFR4 and Klotho-b, are expressed together uniquely in HCC, although it is possible that they may also occur in rare cases of other solid tumors.

We have used our platform to identify a broader target responder population in addition to the FGF19-amplified patient population. In collaboration with a key opinion leader, we have potentially identified an additional approximately one quarter of HCC tumors that overexpress FGF19 without amplification. We have demonstrated a significant anti-tumor response with an FGFR4 inhibitor in an HCC patient-derived xenograft model that overexpresses FGF19 in the absence of amplification. Some of these results were published this year in *Cancer Discovery*. Together, these data suggest that aberrant activation of the FGFR4 signaling pathway is the driver in up to 30% of all cases of HCC.

The FGFR4 signaling pathway is a promising new driver for the development of molecularly targeted therapy in HCC. We estimate that in the Major Markets, there are approximately 18,000 first line and 6,000 second line addressable HCC patients with aberrantly active FGFR4 signaling as indicated by FGF19 overexpression.

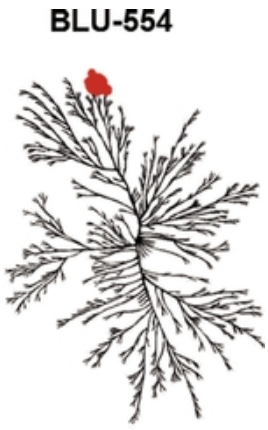
BLU-554 Pre-clinical Development in HCC

Efforts to discover selective, reversible inhibitors of FGFR4 have been challenging given the high sequence similarity among the four FGFR paralogs. A cysteine located near the ATP binding site in FGFR4 is unique among the paralogs. We therefore focused on developing a covalent

inhibitor with paralog specificity and kinome selectivity. Our team of experienced medicinal chemists applied structure-based design principles to develop a potent and selective FGFR4 inhibitor starting from known FGFR inhibitor templates. This effort yielded our development candidate, BLU-554. We have conducted comprehensive *in vitro* experiments to characterize the potency and selectivity of BLU-554. BLU-554 potently inhibits FGFR4 enzyme activity (IC_{50} = 5 nM) and inhibits the activity of FGFR1-3 at least 100-fold less potently (IC_{50} ³ 600 nM). In contrast, pan-FGFR inhibitors such as BGJ-398 fail to exhibit paralog specificity. The selectivity of BLU-554 was further evaluated by profiling BLU-554 at a concentration of 3 µM across a panel of over 450 kinases and disease relevant kinase mutants using KINOME*scan* methodology. BLU-554 displayed significant binding (greater than 90% inhibition relative to control) only to FGFR4 in this assay. In contrast, BGJ-398 significantly bound to 14 kinases (greater than 90% inhibition relative to control).

Paralog Selectivity		
FGFR4 Paralog	**BLU-554**	**BGJ-398**
FGFR4 IC_{50} (nM)	5	26
FGFR1 IC_{50} (nM)	624	<1
FGFR2 IC_{50} (nM)	1,202	<1
FGFR3 IC_{50} (nM)	2,203	<1

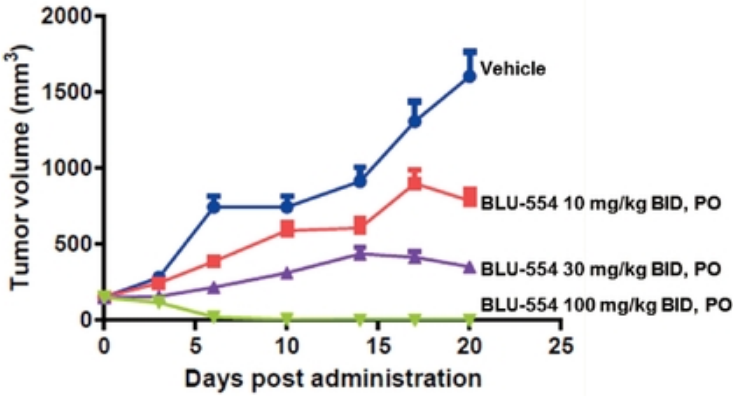
Paralog selectivity of BLU-554 compared to the pan-FGFR inhibitor BGJ-398. The inhibitory potency of BLU-554 and BGJ-398 against each of the FGFR paralogs was evaluated in an *in vitro* enzyme activity assay.



Kinome selectivity of BLU-554 as determined using the KINOME scan assay. BLU-554 was screened at 3 µM against a panel of over 450 kinases and disease-relevant mutants. Each branch of the dendogram represents an individual human kinase. Kinases bound by the compound are indicated by red circles on the kinome tree. The degree of binding corresponds to the size of the circle. *Kinome illustration reproduced courtesy of CSTI (www.cellsignal.com). The foregoing website is maintained by CSTI, and Blueprint Medicines is not responsible for its content.*

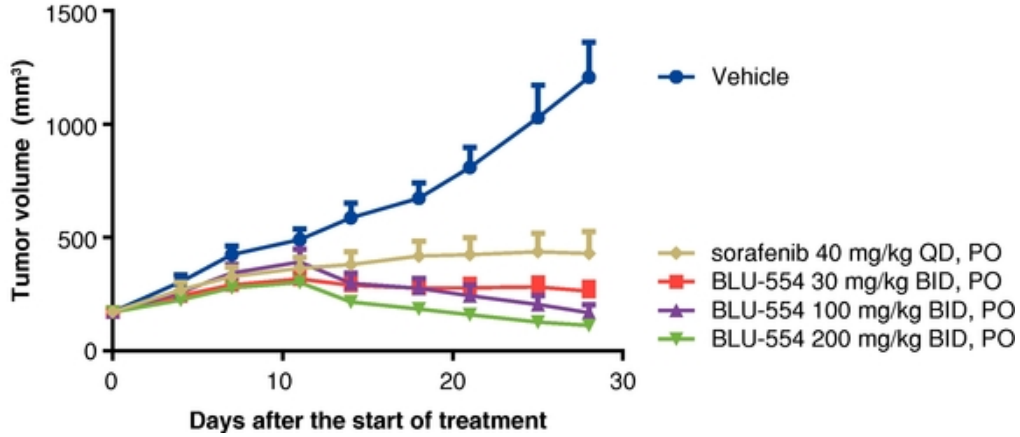
We demonstrated significant anti-tumor efficacy with BLU-554 in two *in vivo* HCC xenograft models where tumor growth is driven by FGFR4 signaling. BLU-554 administered orally for 21 days resulted in robust and dose-dependent growth inhibition of Hep3B tumors, an FGF19-amplified model. At a dose of 100 mg/kg twice daily, a well-tolerated dose, BLU-554 induced complete remission in a subset of mice for at least 30 days after cessation of treatment. We observed a

correlation between the concentration of BLU-554 in mouse plasma and the level of expression of CYP7A1, a downstream biomarker, in the tumor. At the 100 mg/kg twice daily dose, significant induction of CYP7A1 expression was seen, which is an expected consequence of inhibiting FGFR4 signaling. This correlation between BLU-554 plasma concentration, the level of induction of CYP7A1 expression and anti-tumor efficacy supports that the observed anti-tumor response is due to inhibition of FGFR4 signaling.



BLU-554 elicits dose-dependent tumor inhibition in the Hep3B tumor xenograft mouse model, a model of FGF19 amplification. In the figure above, BID means twice a day and PO means orally.

Aberrant FGFR4 signaling can also be driven by FGF19 overexpression in the absence of amplification. Hence, we have also evaluated the anti-tumor efficacy of BLU-554 in a patient-derived xenograft model driven by FGF19 overexpression in the absence of amplification. Treatment with BLU-554 led to dose-dependent tumor growth inhibition. The anti-tumor efficacy of sorafenib, the only approved systemic treatment for HCC, was also evaluated in this study. Sorafenib dosed once daily at 40 mg/kg, a dose that led to body weight loss in the mice, had only a modest effect on tumor growth.



BLU-554 elicits dose-dependent tumor inhibition in a patient-derived tumor xenograft mouse model in which tumor growth is driven by FGF19 overexpression in the absence of FGF19 amplification. In the figure above, BID means twice a day; QD means once a day; and PO means orally.

Taken together, the data presented above indicate that potent and selective FGFR4 inhibition leads to robust anti-tumor effects in *in vivo* models where tumor growth is driven by FGF19 amplification or FGF19 overexpression in the absence of amplification. These findings, together with

analysis of genomic data from HCC patients (indicating that up to 30% of HCC patients have FGF19 overexpression, with or without amplification), provide critical information to identify a potential responder population and will inform patient selection criteria in our planned clinical trial.

We are completing the 28-day GLP toxicology studies, which are expected to identify the dose limiting toxicity and anticipated first-in-human dose for BLU-554.

BLU-554 Clinical Development Plan

We plan to submit an IND for BLU-554 in mid-2015, initiate our Phase 1 clinical trial in mid-2015 and open expansion cohorts in 2016. Our Phase 1 clinical trial will test the safety and tolerability of BLU-554 in multiple ascending doses in patients with HCC and other advanced solid tumors with the goal of establishing an MTD, or a recommended dose if the MTD is not achieved. In the dose escalation phase, FGF19 expression and amplification status will be assessed in patients with available archival tumor tissue. We will then open expansion cohorts for HCC patients selected based on FGF19 expression and stratified according to FGF19 amplification status. The key primary endpoints of the trial are to determine safety, tolerability and the MTD of BLU-554 in HCC. Secondary endpoints include assessing pharmacokinetics, pharmacodynamics and efficacy.

Early signs of biological activity will be assessed using disease-specific circulating biomarkers and, when on-treatment biopsies are available, pharmacodynamic markers. Clinical efficacy will be assessed in the expansion phase using MRI/CT imaging to assess overall response rate by RECIST criteria. We anticipate conducting additional trials to support development in front-line advanced HCC. Additional development beyond HCC will be considered pending further evidence of FGFR4 pathway relevance in cholangiocarcinoma and other solid tumors.

RET Fusion Program

Our third program targets RET fusions and predicted RET resistant mutants. RET is a receptor tyrosine kinase that activates multiple downstream pathways involved in cell proliferation and survival. Sometimes a portion of the RET gene that encodes the kinase domain is joined to part of another gene creating a fusion gene that encodes an aberrantly activated RET fusion protein. RET fusions are implicated in several cancers including papillary thyroid carcinoma (approximately 35% of patients) and non-small cell lung cancer (1-2% of patients). Our recently published genomics analyses on the landscape of kinase fusions identified RET fusions in breast and colon cancer patient samples (both <1% of patients), providing a therapeutic rationale for the use of RET inhibitors in multiple patient subpopulations.

The identification of RET fusions as drivers in some cancers prompted the use of approved multi-kinase inhibitors with RET inhibitory activity to treat patients whose tumors express a RET fusion protein. However, we believe these drugs cannot be dosed at levels required to sufficiently inhibit RET due to toxicities that result from inhibition of the primary targets. Further, one of the greatest challenges in treating cancer is the ability of tumor cells to become resistant to therapy. Kinase reactivation via mutation is a common mechanism of resistance. We have predicted future resistance mutations of drugs with RET inhibitory activity and are collaborating with opinion leaders to understand patterns of emerging clinical resistance. Thus, there is a clear need for a selective RET inhibitor that targets both wild-type RET fusions and their predicted RET resistant mutants.

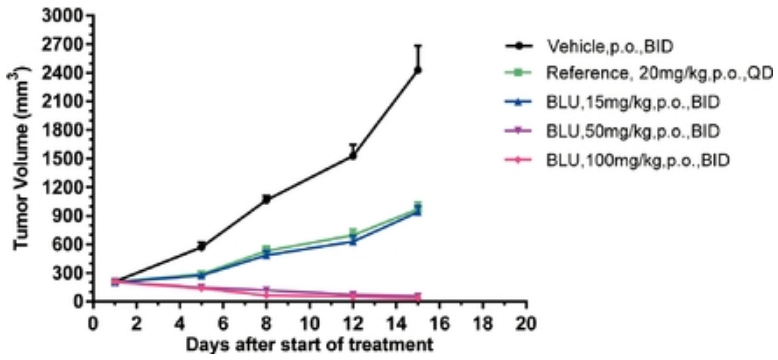
We leveraged our proprietary compound library to identify compounds that fit this challenging drug profile. We have identified library compounds that inhibit both wild-type and mutant RET but not key off-target kinases and are using these as the basis for designing potent and selective RET inhibitors suitable for clinical development.

We have conducted pre-clinical experiments to characterize the potency of one of our RET inhibitors in biochemical and cellular assays. This compound potently inhibits the kinase activity of both wild-type RET and a RET resistance mutant *in vitro* (IC_{50} of 1.5 nM and 0.9 nM, respectively). We have also assessed a panel of seven clinically-approved multi-kinase inhibitors with RET inhibitory activity in these assays. These compounds inhibit the kinase activity of the RET resistance mutant between 1 to >1000-fold less potently than wild-type RET. In cellular models driven by either a wild-type RET fusion or a resistant RET fusion, our compound exhibited similar potent growth inhibitory activity in both cell lines (IC_{50} of 105 nM and 160 nM, respectively). In contrast, the multi-kinase inhibitors exhibited between 1 to >100-fold less growth inhibitory activity against the cell line driven by the mutant RET fusion as compared to the wild-type RET fusion.

IC_{50} (nM)	Biochemical		Cellular	
	RET wt	RET Resistance Mutant	RET wt	RET Resistance Mutant
BLU	1.5	0.9	105	160
Vandetanib	1.8	3597	589	9190
Cabozantinib	54	265	344	2513
Regorafenib	9.8	47	186	2884
Sorafenib	5.6	91	260	2816
Ponatinib	0.6	6	10	267
Lenvatinib	1.5	430	115	13572
Sunitinib	2.7	1.6	734	892

Potency of a Blueprint RET inhibitor against wild-type RET and a RET resistance mutant compared to a panel of clinically-approved multi-kinase inhibitors with RET inhibitory activity. The inhibitory potencies of BLU and the multi-kinase inhibitors against RET wild type and RET resistance mutant protein were evaluated in *in vitro* enzyme activity assays. The inhibitory potencies of these compounds were also evaluated in cell lines driven by either a wild-type RET fusion or a mutant RET fusion.

We have demonstrated significant anti-tumor efficacy with our RET inhibitor in a wild-type RET fusion xenograft model. Administration of our compound orally twice daily for 15 days resulted in robust and dose-dependent tumor growth inhibition. At a dose of 50 mg/kg twice daily, a well-tolerated dose, the compound induced tumor regression. The anti-tumor efficacy of a multi-kinase inhibitor with RET inhibitory activity that is being evaluated in the clinic for treatment of patients with RET fusion positive lung cancer (reference compound) was also evaluated in this study. This reference compound dosed orally once daily at 20 mg/kg, a well-tolerated dose, had a modest effect on tumor growth.



A Blueprint RET inhibitor elicits dose-dependent tumor growth inhibition in a wild-type RET fusion xenograft model. In the figure above, BID means twice a day, QD means once a day and PO means orally.

Collaborations

In March 2015, we entered into a research, development and commercialization agreement with Alexion to research, develop and commercialize drug candidates for an undisclosed activated kinase target, which is the cause of a rare genetic disease. Under the terms of this agreement, which we refer to as the Alexion agreement, we will be responsible for research and pre-clinical development activities related to drug candidates and Alexion will be responsible for all clinical development, manufacturing and commercialization activities related to drug candidates.

Alexion is responsible for funding 100% of our research and development costs incurred under the research plan, including pass-through costs and our employees' time devoted to the research plan at a negotiated yearly rate per full-time equivalent for our employees' time and associated overhead expenses. We received a $15 million non-refundable upfront payment in March 2015 upon execution of the Alexion agreement and are eligible to receive over $250 million in payments upon the successful achievement of pre-specified pre-clinical, clinical, regulatory and commercial milestones. Alexion will pay us customary royalties, on a country-by-country and licensed product-by-licensed product basis, on worldwide net product sales of licensed products.

The term of the Alexion agreement will continue for an undisclosed period of time, unless terminated earlier by either party. Alexion has the right to terminate the Alexion agreement due to our uncured breach or insolvency, industry transaction involving us, or voluntarily upon 90 days prior written notice. We have the right to terminate the Alexion agreement due to Alexion's uncured breach or insolvency, or certain other events agreed to by the parties.

Intellectual Property

Our commercial success depends in part on our ability to obtain and maintain proprietary or intellectual property protection for our drug candidates, including BLU-285 and BLU-554, and our core technologies, including our novel target discovery engine and our proprietary compound library, and other know-how; to operate without infringing on the proprietary rights of others; and to prevent others from infringing our proprietary or intellectual property rights. Our policy is to seek to protect our proprietary and intellectual property position by, among other methods, filing U.S., international and foreign patent applications related to our proprietary technology, inventions and improvements that are important to the development and implementation of our business. We also rely on trade secrets, know-how and continuing technological innovation to develop and maintain our proprietary and intellectual property position.

We file patent applications directed to our drug candidates in an effort to establish intellectual property positions regarding these new chemical entities as well as uses of these new chemical entities in the treatment of diseases. We also file patent applications directed to novel fusions that we have discovered through our target discovery engine and the use of these fusions in diagnosing and treating disease. As of February 7, 2015, we owned one issued U.S. patent, 16 pending U.S. patent applications, 41 foreign patent applications pending in a number of jurisdictions, including Australia, Brazil, Canada, China, Europe, Israel, India, Japan, South Korea, Mexico New Zealand, Russia, South Africa, and seven pending Patent Cooperation Treaty, or PCT, patent applications. A significant portion of our pending patent applications pertain to our key discovery programs, specifically novel recurrent fusions. Our issued U.S. patent is projected to expire in 2033, and any patents that may issue from our pending U.S. applications would be projected to expire between 2034 and 2036.

The intellectual property portfolios for our most advanced drug candidates as of February 7, 2015 are summarized below. Each of these portfolios is in its very early stages and, with respect to most of the pending patent applications covering our drug candidates, prosecution has yet to commence. Prosecution is a lengthy process, during which the scope of the claims initially

submitted for examination by the USPTO often significantly narrowed by the time they issue, if they issue at all. We expect this to be the case with respect to our pending patent applications referred to below.

KIT Exon 17

The intellectual property portfolio for our KIT Exon 17 program contains patent applications directed to compositions of matter for BLU-285 and analogs, compositions of matter for KIT Exon 17 inhibitors with different compound families, as well as methods of use for these novel compounds. As of February 7, 2015, we owned four pending U.S. patent applications, nine pending foreign patent applications in a number of jurisdictions, including Argentina, Bolivia, Pakistan, Taiwan and Venezuela, and three pending PCT patent applications directed to this program. Each of the U.S. and ex-U.S. patents issuing from the pending applications covering BLU-285 will have a statutory expiration date of October 2034. Patent term adjustments or patent term extensions could result in later expiration dates.

FGFR4

The intellectual property portfolio for our FGFR4 program contains patent applications directed to compositions of matter for BLU-554 and analogs, as well as compositions of matter for FGFR4 inhibitors with multiple compound families. The portfolio also includes patent applications directed to methods of use for the novel compounds as well as patent applications directed broadly to FGFR4 selective inhibitors. As of February 7, 2015, we owned one issued U.S. patent, three pending U.S. patent applications, 32 foreign patent applications in a number of jurisdictions, including Australia, Brazil, Canada, China, Europe, Israel, India, Japan, South Korea, Mexico New Zealand, Russia, South Africa, and two pending PCT patent applications directed to this program. Each of the U.S. and ex-U.S. patent issuing from the pending applications covering BLU-554 will have a statutory expiration date of July 2033, December 2033, or October 2034. Patent term adjustments or patent term extensions could result in later expiration dates.

RET

The intellectual property portfolio for our RET program contains a patent application directed to compositions of matter for inhibitors of the predicted RET resistant mutants, as well as methods of use for these novel compounds. As of February 7, 2015, we owned one pending U.S. patent application directed to this program.

Platform

The intellectual property portfolio directed to our platform includes patent applications directed to novel gene fusions and the uses of these fusions for detecting and treating conditions implicated with these fusions. As of February 7, 2015, we owned eight pending U.S. patent applications and two pending PCT patent applications directed to this technology.

The term of individual patents depends upon the legal term for patents in the countries in which they are obtained. In most countries, including the United States, the patent term is 20 years from the earliest filing date of a non-provisional patent application. In the United States, a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office, or the USPTO, in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier filed patent. The term of a patent that covers a drug or biological product may also be eligible for patent term extension when FDA approval is granted, provided statutory and regulatory requirements are met. See "— Government Regulation — U.S. Patent Term Restoration and Marketing Exclusivity"

below for additional information on such exclusivity. In the future, if and when our drug candidates receive approval by the FDA or foreign regulatory authorities, we expect to apply for patent term extensions on issued patents covering those drugs, depending upon the length of the clinical trials for each drug and other factors. There can be no assurance that any of our pending patent applications will issue or that we will benefit from any patent term extension or favorable adjustment to the term of any of our patents.

As with other biotechnology and pharmaceutical companies, our ability to maintain and solidify our proprietary and intellectual property position for our drug candidates and technologies will depend on our success in obtaining effective patent claims and enforcing those claims if granted. However, our pending patent applications, and any patent applications that we may in the future file or license from third parties may not result in the issuance of patents. We also cannot predict the breadth of claims that may be allowed or enforced in our patents. Any issued patents that we may receive in the future may be challenged, invalidated or circumvented. For example, we cannot be certain of the priority of inventions covered by pending third-party patent applications. If third parties prepare and file patent applications in the United States that also claim technology or therapeutics to which we have rights, we may have to participate in interference proceedings in the USPTO to determine priority of invention, which could result in substantial costs to us, even if the eventual outcome is favorable to us, which is highly unpredictable. In addition, because of the extensive time required for clinical development and regulatory review of a drug candidate we may develop, it is possible that, before any of our drug candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby limiting protection such patent would afford the respective product and any competitive advantage such patent may provide.

In addition to patents, we rely upon unpatented trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, by executing confidentiality agreements with our collaborators and scientific advisors, and non-competition, non-solicitation, confidentiality, and invention assignment agreements with our employees and consultants. We have also executed agreements requiring assignment of inventions with selected scientific advisors and collaborators. The confidentiality agreements we enter into are designed to protect our proprietary information and the agreements or clauses requiring assignment of inventions to us are designed to grant us ownership of technologies that are developed through our relationship with the respective counterparty. We cannot guarantee, however, that these agreements will afford us adequate protection of our intellectual property and proprietary information rights.

With respect to the building of our proprietary compound library, we consider trade secrets and know-how to be our primary intellectual property. Trade secrets and know-how can be difficult to protect. In particular, we anticipate that with respect to this technology platform, these trade secrets and know-how will over time be disseminated within the industry through independent development and public presentations describing the methodology.

Competition

The pharmaceutical and biotechnology industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary drugs. While we believe that our technology, development experience and scientific knowledge provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and governmental agencies and public and private research institutions. Any drug candidates that we successfully develop and commercialize will compete with existing drugs and new drugs that may become available in the future.

We compete in the segments of the pharmaceutical, biotechnology and other related markets that address inhibition of kinases in cancer and other rare genetic diseases. There are other companies working to develop therapies in the field of kinase inhibition for cancer and other diseases. These companies include divisions of large pharmaceutical companies and biotechnology companies of various sizes.

Many of the companies against which we are competing or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, pre-clinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved drugs than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize drugs that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any drugs that we or our collaborators may develop. Our competitors also may obtain FDA or other regulatory approval for their drugs more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we or our collaborators are able to enter the market. The key competitive factors affecting the success of all of our drug candidates, if approved, are likely to be their efficacy, safety, convenience, price, the effectiveness of companion diagnostics in guiding the use of related therapeutics, the level of generic competition and the availability of reimbursement from government and other third-party payors.

If the drug candidates for our priority programs are approved for the indications for which are currently planning clinical trials, they will compete with the drugs discussed below and will likely compete with other drugs that are currently in development.

BLU-285

We are initially developing BLU-285, which is designed to target KIT Exon 17, for advanced SM and GIST patients, as well as for patients with GIST with the PDGFRa D842V mutation.

For advanced SM, the only approved medical therapy is imatinib for patients without the KIT D816V mutation or mutational status unknown. Several treatments are used off-label for cytoreduction including interferon-a and cytoreductive agents for advanced forms of SM. If BLU-285 receives marketing approval, it may face competition from other drug candidates in development for advanced SM, including drug candidates in development from AB Science S.A., Plexxikon Inc., a wholly-owned subsidiary of Daiichi Sankyo Company, Limited, Deciphera Pharmaceuticals, LLC and Novartis AG.

For GIST, the current approved standards of care for unresectable or metastatic patients are first-line imatinib, followed by second-line sunitinib upon imatinib progression, followed by third-line regorafenib upon sunitinib progression. While these agents do not address patients with the PDGFRa D842V mutation, they may be competitor therapies if the recommended mutational status testing is not performed. If BLU-285 receives marketing approval for this indication, it may also face competition from drug candidates in development by AROG Pharmaceuticals, Inc., Plexxikon Inc. and ARIAD Pharmaceuticals, Inc.

BLU-554

The development of BLU-554 will focus on a subset of patients with HCC with FGF19 overexpression. The only approved systemic medical therapy for HCC is sorafenib. In addition, there are potentially competitive drug candidates in development by AstraZeneca plc, Bayer AG, Johnson & Johnson, Novartis AG, Taiho Pharmaceutical Co., Ltd. and Xoma Ltd.

Commercialization Plans

Our vision is to become a fully-integrated biopharmaceutical company. This will enable us to realize our goal of delivering transformative drugs to patients. Given our stage of development, we have not yet established our own commercial organization or distribution capabilities. Our initial focus is on genomically-defined patient populations in oncology allowing us to efficiently commercialize our drug candidates in the United States on our own initially and worldwide longer-term. We believe we can successfully launch and commercialize our initial drug candidates on our own, using a small and highly specialized sales force similar to those of other rare disease companies. However, we may establish collaborations with pharmaceutical companies to leverage their capabilities to maximize the potential of our drug candidates.

Manufacturing and Supply

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We currently rely, and expect to continue to rely, on third parties for the manufacture of our drug candidates for pre-clinical and clinical testing, as well as for commercial manufacture of any drugs that we may commercialize. To date, we have obtained active pharmaceutical ingredients, or API, and drug substance for BLU-285 and BLU-554 for our pre-clinical and planned Phase 1 testing from one third-party manufacturer and drug product from another third party manufacturer. We obtain our supplies from these manufacturers on a purchase order basis and do not have a long-term supply arrangement in place. We do not currently have arrangements in place for redundant supply for API, drug product or drug substance. For all of our drug candidates, we intend to identify and qualify additional manufacturers to provide the API, drug product and drug substance prior to submission of a new drug application to the FDA and/or a marketing authorization application to the European Medicines Agency.

BLU-285 and BLU-554 are compounds of low molecular weight, generally called small molecules. They can be manufactured in reliable and reproducible synthetic processes from readily available starting materials. The chemistry is amenable to scale-up and does not require unusual equipment in the manufacturing process. We expect to continue to develop drug candidates that can be produced cost-effectively at contract manufacturing facilities.

We generally expect to rely on third parties for the manufacture of any companion diagnostics we develop.

Government Regulation

Government authorities in the United States at the federal, state and local level and in other countries extensively regulate, among other things, the research and clinical development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing, pricing and export and import of drug products, such as those we are developing. Generally, before a new drug can be marketed, considerable data demonstrating its quality, safety and efficacy must be obtained, organized into a format specific to each regulatory authority, submitted for review and approved by the regulatory authority.

Drugs are also subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable regulatory requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. These sanctions could include, among other actions, the regulatory authority's refusal to approve pending applications, withdrawal of an approval clinical holds, warning letters, product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution injunctions, disbarment, fines, refusals of government contracts, restitution, disgorgement, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

U.S. Drug Development

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementing regulations. Drugs are also subject to other federal, state and local statutes and regulations. Our drug candidates must be approved by the FDA through the NDA process before they may be legally marketed in the United States. The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- Completion of extensive pre-clinical, sometimes referred to as pre-clinical laboratory tests, pre-clinical animal studies and formulation studies all performed in accordance with applicable regulations, including the FDA's GLP regulations;
- Submission to the FDA of an IND, which must become effective before human clinical trials may begin and must be updated annually;
- Performance of adequate and well-controlled human clinical trials in accordance with applicable IND and other clinical trial-related regulations, sometimes referred to as good clinical practices, or GCPs, to establish the safety and efficacy of the proposed drug for its proposed indication;
- Submission to the FDA of an NDA, for a new drug;
- A determination by the FDA within 60 days of its receipt of an NDA to file the NDA for review;
- Satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities at which the API and finished drug product are produced to assess compliance with the FDA's current good manufacturing practice requirements, or cGMP;
- Potential FDA audit of the pre-clinical and/or clinical trial sites that generated the data in support of the NDA; and
- FDA review and approval of the NDA prior to any commercial marketing or sale of the drug in the United States.

The data required to support an NDA is generated in two distinct development stages: pre-clinical and clinical. For new chemical entities, the pre-clinical development stage generally involves synthesizing the active component, developing the formulation and determining the manufacturing process, as well as carrying out non-human toxicology, pharmacology and drug metabolism studies in the laboratory, which support subsequent clinical testing. The conduct of the pre-clinical tests must comply with federal regulations, including GLPs. The sponsor must submit the results of the pre-clinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. An IND is a request for authorization from the FDA to administer an investigational drug product to

humans. The central focus of an IND submission is on the general investigational plan and the protocol(s) for human trials. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA raises concerns or questions regarding the proposed clinical trials and places the IND on clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns or questions before the clinical trial can begin. The FDA may also impose clinical holds on a drug candidate at any time before or during clinical trials due to safety concerns or non-compliance. Accordingly, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that could cause the trial to be suspended or terminated.

The clinical stage of development involves the administration of the drug candidate to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control, in accordance with GCPs, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety and assess efficacy. Each protocol, and any subsequent amendments to the protocol, must be submitted to the FDA as part of the IND. Further, each clinical trial must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of trial participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. There are also requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries.

Clinical trials are generally conducted in three sequential phases that may overlap or be combined, known as Phase 1, Phase 2 and Phase 3 clinical trials. Phase 1 clinical trials generally involve a small number of healthy volunteers who are initially exposed to a single dose and then multiple doses of the drug candidate. The primary purpose of these clinical trials is to assess the metabolism, pharmacologic action, side effect tolerability and safety of the drug. Phase 2 clinical trials typically involve studies in disease-affected patients to determine the dose required to produce the desired benefits. At the same time, safety and further pharmacokinetic and pharmacodynamic information is collected, as well as identification of possible adverse effects and safety risks and preliminary evaluation of efficacy. Phase 3 clinical trials generally involve large numbers of patients at multiple sites, in multiple countries (from several hundred to several thousand subjects) and are designed to provide the data necessary to demonstrate the efficacy of the drug for its intended use, its safety in use, and to establish the overall benefit/risk relationship of the drug and provide an adequate basis for drug approval. Phase 3 clinical trials may include comparisons with placebo and/or other comparator treatments. The duration of treatment is often extended to mimic the actual use of a drug during marketing. Generally, two adequate and well-controlled Phase 3 clinical trials are required by the FDA for approval of an NDA.

A pivotal study is a clinical study that adequately meets regulatory agency requirements for the evaluation of a drug candidate's efficacy and safety such that it can be used to justify the approval of the drug. Generally, pivotal studies are also Phase 3 studies but may be Phase 2 studies if the trial design provides a well-controlled and reliable assessment of clinical benefit, particularly in situations where there is an unmet medical need. Post-approval trials, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, FDA may mandate the performance of Phase 4 clinical trials.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events or any finding from tests in laboratory animals that suggests a significant risk for human subjects. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, if at all. The FDA, the IRB, or the clinical trial sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether or not a trial may move forward at designated check points based on access to certain data from the trial. We may also suspend or terminate a clinical trial based on evolving business objectives and/or competitive climate. Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug as well as finalize a process for manufacturing the drug in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate and, among other things, cGMPs impose extensive procedural, substantive and recordkeeping requirements to ensure and preserve the long term stability and quality of the final drug product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the drug candidate does not undergo unacceptable deterioration over its shelf life.

NDA and FDA Review Process

Following trial completion, trial data is analyzed to assess safety and efficacy. The results of pre-clinical studies and clinical trials are then submitted to the FDA as part of an NDA, along with proposed labeling for the drug and information about the manufacturing process and facilities that will be used to ensure drug quality, results of analytical testing conducted on the chemistry of the drug, and other relevant information. The NDA is a request for approval to market the drug and must contain adequate evidence of safety and efficacy, which is demonstrated by extensive pre-clinical and clinical testing. The application includes both negative or ambiguous results of pre-clinical and clinical trials as well as positive findings. Data may come from company-sponsored clinical trials intended to test the safety and efficacy of a use of a drug, or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and efficacy of the investigational drug product to the satisfaction of the FDA. The submission of an NDA is subject to the payment of substantial user fees; a waiver of such fees may be obtained under certain limited circumstances. FDA approval of an NDA must be obtained before a drug may be offered for sale in the United States.

In addition, under the Pediatric Research Equity Act, or PREA, an NDA or supplement to an NDA must contain data to assess the safety and efficacy of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the drug is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each NDA must be accompanied by a user fee. The FDA adjusts the PDUFA user fees on an annual basis. According to the FDA's fee schedule, effective through September 30, 2015, the user fee for an application requiring clinical data, such as an NDA, is $2,335,200. PDUFA also imposes an annual product fee

for human drugs ($110,370) and an annual establishment fee ($569,200) on facilities used to manufacture prescription drugs. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on NDAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

The FDA reviews all NDAs submitted before it accepts them for filing and may request additional information rather than accepting an NDA for filing. The FDA must make a decision on accepting an NDA for filing within 60 days of receipt. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Under the goals and policies agreed to by the FDA under PDUFA, the FDA has ten months from the filing date in which to complete its initial review of a standard NDA and respond to the applicant, and six months from the filing date for a priority NDA. The FDA does not always meet its PDUFA goal dates for standard and priority NDAs, and the review process is often significantly extended by FDA requests for additional information or clarification.

After the NDA submission is accepted for filing, the FDA reviews the NDA to determine, among other things, whether the proposed drug is safe and effective for its intended use, and whether the drug is being manufactured in accordance with cGMP to assure and preserve the drug's identity, strength, quality and purity. The FDA may refer applications for novel drugs or drug candidates that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. The FDA will likely re-analyze the clinical trial data, which could result in extensive discussions between the FDA and us during the review process. The review and evaluation of an NDA by the FDA is extensive and time consuming and may take longer than originally planned to complete, and we may not receive a timely approval, if at all.

Before approving an NDA, the FDA will conduct a pre-approval inspection of the manufacturing facilities for the new drug to determine whether they comply with cGMPs. The FDA will not approve the drug unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the drug within required specifications. In addition, before approving an NDA, the FDA may also audit data from clinical trials to ensure compliance with GCP requirements. After the FDA evaluates the application, manufacturing process and manufacturing facilities where the drug product and/or its API will be produced, it may issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application is not ready for approval. A Complete Response Letter usually describes all of the specific deficiencies in the NDA identified by the FDA. The Complete Response Letter may require additional clinical data and/or an additional pivotal clinical trial(s), and/or other significant, expensive and time-consuming requirements related to clinical trials, pre-clinical studies or manufacturing. If a Complete Response Letter is issued, the applicant may either resubmit the NDA, addressing all of the deficiencies identified in the letter, or withdraw the application. Even if such data and information is submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret the same data.

There is no assurance that the FDA will ultimately approve a drug product for marketing in the United States and we may encounter significant difficulties or costs during the review process. If a drug receives marketing approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial

value of the drug. Further, the FDA may require that certain contraindications, warnings or precautions be included in the drug labeling or may condition the approval of the NDA on other changes to the proposed labeling, development of adequate controls and specifications, or a commitment to conduct post-market testing or clinical trials and surveillance to monitor the effects of approved drugs. For example, the FDA may require Phase 4 testing which involves clinical trials designed to further assess a drug's safety and effectiveness and may require testing and surveillance programs to monitor the safety of approved drugs that have been commercialized. The FDA may also place other conditions on approvals including the requirement for a Risk Evaluation and Mitigation Strategy, or REMS to assure the safe use of the drug. If the FDA concludes a REMS is needed, the sponsor of the NDA must submit a proposed REMS. The FDA will not approve the NDA without an approved REMS, if required. A REMS could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of drugs. Drug approvals may be withdrawn for non-compliance with regulatory standards or if problems occur following initial marketing.

Special FDA Expedited Review and Approval Programs

The FDA has various programs, including Fast Track Designation, accelerated approval, priority review and Breakthrough Therapy Designation, that are intended to expedite or simplify the process for the development and FDA review of drugs that are intended for the treatment of serious or life threatening diseases or conditions and demonstrate the potential to address unmet medical needs. The purpose of these programs is to provide important new drugs to patients earlier than under standard FDA review procedures. To be eligible for a Fast Track Designation, the FDA must determine, based on the request of a sponsor, that a drug is intended to treat a serious or life threatening disease or condition and demonstrates the potential to address an unmet medical need. The FDA will determine that a product will fill an unmet medical need if it will provide a therapy where none exists or provide a therapy that may be potentially superior to existing therapy based on efficacy or safety factors.

The FDA may give a priority review designation to drugs that offer major advances in treatment, or provide a treatment where no adequate therapy exists. A priority review means that the goal for the FDA to review an application is six months, rather than the standard review of ten months under current PDUFA guidelines. These six and ten month review periods are measured from the "filing" date rather than the receipt date for NDAs for new molecular entities, which typically adds approximately two months to the timeline for review and decision from the date of submission. Most products that are eligible for Fast Track Designation are also likely to be considered appropriate to receive a priority review.

In addition, drugs studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval and may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require a sponsor of a drug receiving accelerated approval to perform post-marketing studies to verify and describe the predicted effect on irreversible morbidity or mortality or other clinical endpoint, and the drug may be subject to accelerated withdrawal procedures.

Moreover, under the provisions of the new Food and Drug Administration Safety and Innovation Act, or FDASIA, enacted in 2012, a sponsor can request designation of a product candidate as a "breakthrough therapy." A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Drugs designated as breakthrough therapies are also eligible for accelerated approval. The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened. Furthermore, Fast Track Designation, priority review, accelerated approval and Breakthrough Therapy Designation, do not change the standards for approval and may not ultimately expedite the development or approval process.

Pediatric Trials

Pursuant to FDASIA, which was signed into law on July 9, 2012,a sponsor who is planning to submit a marketing application for a drug that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration must submit an initial Pediatric Study Plan, or PSP, within sixty days of an end-of-Phase 2 meeting or as may be agreed between the sponsor and FDA. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. FDA and the sponsor must reach agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from pre-clinical studies, early phase clinical trials, and/or other clinical development programs.

Post-Marketing Requirements

Following approval of a new drug, a pharmaceutical company and the approved drug are subject to continuing regulation by the FDA, including, among other things, monitoring and recordkeeping activities, reporting to the applicable regulatory authorities of adverse experiences with the drug, providing the regulatory authorities with updated safety and efficacy information, drug sampling and distribution requirements, and complying with promotion and advertising requirements, which include, among others, standards for direct-to-consumer advertising, restrictions on promoting drugs for uses or in patient populations that are not described in the drug's approved labeling (known as "off-label use"), limitations on industry-sponsored scientific and educational activities, and requirements for promotional activities involving the internet. Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such off-label uses. Modifications or enhancements to the drug or its labeling or changes of the site of manufacture are often subject to the approval of the FDA and other regulators, which may or may not be received or may result in a lengthy review process.

Prescription drug advertising is subject to federal, state and foreign regulations. In the United States, the FDA regulates prescription drug promotion, including direct-to-consumer advertising. Prescription drug promotional materials must be submitted to the FDA in conjunction with their first use. Any distribution of prescription drugs and pharmaceutical samples must comply with the U.S. Prescription Drug Marketing Act, or the PDMA, a part of the FDCA.

In the United States, once a drug is approved, its manufacture is subject to comprehensive and continuing regulation by the FDA. The FDA regulations require that drugs be manufactured in specific approved facilities and in accordance with cGMP. We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our drugs in accordance with cGMP regulations. cGMP regulations require among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation and the obligation to investigate and correct any deviations from cGMP. Drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. These regulations also impose certain organizational, procedural and documentation requirements with respect to manufacturing and quality assurance activities. NDA holders using contract manufacturers, laboratories or packagers are responsible for the selection and monitoring of qualified firms, and, in certain circumstances, qualified suppliers to these firms. These firms and, where applicable, their suppliers are subject to inspections by the FDA at any time, and the discovery of violative conditions, including failure to conform to cGMP, could result in enforcement actions that interrupt the operation of any such facilities or the ability to distribute drugs manufactured, processed or tested by them. Discovery of problems with a drug after approval may result in restrictions on a drug, manufacturer, or holder of an approved NDA, including, among other things, recall or withdrawal of the drug from the market, and may require substantial resources to correct.

The FDA also may require post-approval testing, sometimes referred to as Phase 4 testing, risk minimization action plans and post-marketing surveillance to monitor the effects of an approved drug or place conditions on an approval that could restrict the distribution or use of the drug. Discovery of previously unknown problems with a drug or the failure to comply with applicable FDA requirements can have negative consequences, including adverse publicity, judicial or administrative enforcement, warning letters from the FDA, mandated corrective advertising or communications with doctors, and civil or criminal penalties, among others. Newly discovered or developed safety or effectiveness data may require changes to a drug's approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory approval of our drugs under development.

Other Regulatory Matters

Manufacturing, sales, promotion and other activities following drug approval are also subject to regulation by numerous regulatory authorities in addition to the FDA, including, in the United States, the Centers for Medicare & Medicaid Services, other divisions of the Department of Health and Human Services, the Drug Enforcement Administration for controlled substances, the Consumer Product Safety Commission, the Federal Trade Commission, the Occupational Safety & Health Administration, the Environmental Protection Agency and state and local governments. In the United States, sales, marketing and scientific/educational programs must also comply with state and federal fraud and abuse laws. Pricing and rebate programs must comply with the Medicaid rebate requirements of the U.S. Omnibus Budget Reconciliation Act of 1990 and more recent requirements in the Health Care Reform Law, as amended by the Health Care and Education Affordability Reconciliation Act, or ACA. If drugs are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. The handling of any controlled substances must comply with the U.S. Controlled Substances Act and Controlled Substances Import and Export Act. Drugs must meet applicable child-resistant

packaging requirements under the U.S. Poison Prevention Packaging Act. Manufacturing, sales, promotion and other activities are also potentially subject to federal and state consumer protection and unfair competition laws.

The distribution of pharmaceutical drugs is subject to additional requirements and regulations, including extensive record-keeping, licensing, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical drugs.

The failure to comply with regulatory requirements subjects firms to possible legal or regulatory action. Depending on the circumstances, failure to meet applicable regulatory requirements can result in criminal prosecution, fines or other penalties, injunctions, recall or seizure of drugs, total or partial suspension of production, denial or withdrawal of product approvals, or refusal to allow a firm to enter into supply contracts, including government contracts. In addition, even if a firm complies with FDA and other requirements, new information regarding the safety or efficacy of a product could lead the FDA to modify or withdraw product approval. Prohibitions or restrictions on sales or withdrawal of future products marketed by us could materially affect our business in an adverse way.

Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example: (i) changes to our manufacturing arrangements; (ii) additions or modifications to product labeling; (iii) the recall or discontinuation of our products; or (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

U.S. Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of the FDA approval of our drug candidates, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of an NDA plus the time between the submission date of an NDA and the approval of that application. Only one patent applicable to an approved drug is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The USPTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we intend to apply for restoration of patent term for one of our currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant NDA.

Marketing exclusivity provisions under the FDCA can also delay the submission or the approval of certain marketing applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to obtain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application, or ANDA, or a 505(b)(2) NDA submitted by another company for another drug based on the same active moiety, regardless of whether the drug is intended for the same indication as the original innovator drug or for another indication, where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or

non-infringement to one of the patents listed with the FDA by the innovator NDA holder. The FDCA also provides three years of marketing exclusivity for an NDA, or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the modification for which the drug received approval on the basis of the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the active agent for the original indication or condition of use. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the pre-clinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness. Orphan drug exclusivity, as described above, may offer a seven-year period of marketing exclusivity, except in certain circumstances. Pediatric exclusivity is another type of regulatory market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric trial in accordance with an FDA-issued "Written Request" for such a trial.

Orphan Drug Designation

The FDA may grant Orphan Drug Designation to drugs intended to treat a rare disease or condition that affects fewer than 200,000 individuals in the United States, or if it affects more than 200,000 individuals in the United States, there is no reasonable expectation that the cost of developing and marketing the drug for this type of disease or condition will be recovered from sales in the United States. In the European Union, the EMA's Committee for Orphan Medicinal Products, or COMP, grants Orphan Drug Designation to promote the development of products that are intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating conditions affecting not more than five in 10,000 persons in the European Union Community. Additionally, designation is granted for products intended for the diagnosis, prevention or treatment of a life-threatening, seriously debilitating or serious and chronic condition and when, without incentives, it is unlikely that sales of the drug in the European Union would be sufficient to justify the necessary investment in developing the drug or biological product.

In the United States, Orphan Drug Designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. In addition, if a product receives the first FDA approval for the indication for which it has orphan designation, the product is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority over the product with orphan exclusivity.

In the European Union, Orphan Drug Designation also entitles a party to financial incentives such as reduction of fees or fee waivers and ten years of market exclusivity is granted following drug or biological product approval. This period may be reduced to six years if the Orphan Drug Designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity.

Orphan drug designation must be requested before submitting an application for marketing approval. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

Regulation of Diagnostic Tests

We expect that our drug candidates may require use of a diagnostic to identify appropriate patient populations for our products. These diagnostics, often referred to as companion diagnostics, are medical devices, often in vitro devices, which provide information that is essential for the safe and effective use of a corresponding drug. In the United States, the FDCA and its implementing regulations, and other federal and state statutes and regulations govern, among other things, medical device design and development, preclinical and clinical testing, premarket clearance or approval, registration and listing, manufacturing, labeling, storage, advertising and promotion, sales and distribution, export and import, and post-market surveillance. Unless an exemption applies, diagnostic tests require marketing clearance or approval from the FDA prior to commercial distribution. The two primary types of FDA marketing authorization applicable to a medical device are premarket notification, also called 510(k) clearance, and premarket approval, or PMA approval. We expect that any companion diagnostic developed for our drug candidates will utilize the PMA pathway.

PMA applications must be supported by valid scientific evidence, which typically requires extensive data, including technical, preclinical, clinical and manufacturing data, to demonstrate to the FDA's satisfaction the safety and effectiveness of the device. For diagnostic tests, a PMA application typically includes data regarding analytical and clinical validation studies. As part of its review of the PMA, the FDA will conduct a pre-approval inspection of the manufacturing facility or facilities to ensure compliance with the Quality System Regulation, or QSR, which requires manufacturers to follow design, testing, control, documentation and other quality assurance procedures. FDA review of an initial PMA may require several years to complete. If the FDA evaluations of both the PMA application and the manufacturing facilities are favorable, the FDA will either issue an approval letter or an approvable letter, which usually contains a number of conditions that must be met in order to secure the final approval of the PMA. If the FDA's evaluation of the PMA or manufacturing facilities is not favorable, the FDA will deny approval of the PMA or issue a not approvable letter. A not approvable letter will outline the deficiencies in the application and, where practical, will identify what is necessary to make the PMA approvable. The FDA may also determine that additional clinical trials are necessary, in which case the PMA approval may be delayed for several months or years while the trials are conducted and then the data submitted in an amendment to the PMA. Once granted, PMA approval may be withdrawn by the FDA if compliance with post approval requirements, conditions of approval or other regulatory standards is not maintained or problems are identified following initial marketing.

On August 6, 2014, the FDA issued a final guidance document addressing the development and approval process for "In Vitro Companion Diagnostic Devices." According to the guidance, for novel drugs such as our drug candidates, a companion diagnostic device and its corresponding drug should be approved or cleared contemporaneously by FDA for the use indicated in the therapeutic product labeling.

In the EEA, in vitro medical devices are required to conform with the essential requirements of the E.U. Directive on in vitro diagnostic medical devices (Directive No 98/79/EC, as amended). To demonstrate compliance with the essential requirements, the manufacturer must undergo a conformity assessment procedure. The conformity assessment varies according to the type of medical device and its classification. For low-risk devices, the conformity assessment can be carried out internally, but for higher risk devices it requires the intervention of an accredited EEA Notified Body. If successful, the conformity assessment concludes with the drawing up by the manufacturer of an EC Declaration of Conformity entitling the manufacturer to affix the CE mark to its products and to sell them throughout the EEA. The data generated for the U.S. registration will be sufficient to satisfy the regulatory requirements for the European Union and other countries.

European Drug Development

In Europe, our future drugs may also be subject to extensive regulatory requirements. As in the United States, medicinal products can only be marketed if a marketing authorization from the competent regulatory agencies has been obtained.

Similar to the United States, the various phases of pre-clinical and clinical research in Europe are subject to significant regulatory controls. Although the EU Clinical Trials Directive 2001/20/EC has sought to harmonize the European Union clinical trials regulatory framework, setting out common rules for the control and authorization of clinical trials in the European Union, the European Union Member States have transposed and applied the provisions of the Directive differently. This has led to significant variations in the member state regimes. Under the current regime, before a clinical trial can be initiated it must be approved in each of the European Union countries where the trial is to be conducted by two distinct bodies: the National Competent Authority, or NCA, and one or more Ethics Committees, or ECs. Under the current regime all suspected unexpected serious adverse reactions to the investigated drug that occur during the clinical trial have to be reported to the NCA and ECs of the Member State where they occurred.

The European Union clinical trials legislation is currently undergoing a revision process mainly aimed at uniforming and streamlining the clinical trials authorization process, simplifying adverse event reporting procedures, improving the supervision of clinical trials, and increasing their transparency.

European Drug Review and Approval

In the European Economic Area, or EEA, (which is comprised of the 27 Member States of the European Union (excluding Croatia) plus Norway, Iceland and Liechtenstein), medicinal products can only be commercialized after obtaining a Marketing Authorization, or MA. There are two types of marketing authorizations:

The Community MA, which is issued by the European Commission through the Centralized Procedure, based on the opinion of the Committee for Medicinal Products for Human Use, or CHMP, of the EMA and which is valid throughout the entire territory of the EEA. The Centralized Procedure is mandatory for certain types of drugs, such as biotechnology medicinal drugs, orphan medicinal drugs, and medicinal drugs containing a new active substance indicated for the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, auto-immune and viral diseases. The Centralized Procedure is optional for drugs containing a new active substance not yet authorized in the EEA, or for drugs that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the European Union.

National MAs, which are issued by the competent authorities of the Member States of the EEA and only cover their respective territory, are available for drugs not falling within the mandatory scope of the Centralized Procedure. Where a drug has already been authorized for marketing in a Member State of the EEA, this National MA can be recognized in another Member States through the Mutual Recognition Procedure. If the drug has not received a National MA in any Member State at the time of application, it can be approved simultaneously in various Member States through the Decentralized Procedure. Under the Decentralized Procedure an identical dossier is submitted to the competent authorities of each of the Member States in which the MA is sought, one of which is selected by the applicant as the Reference Member State, or RMS. The competent authority of the RMS prepares a draft assessment report, a draft summary of the drug characteristics, or SPC, and a draft of the labeling and package leaflet, which are sent to the other Member States (referred to as the Member States Concerned) for their approval. If the Member States Concerned raise no objections, based on a potential serious risk to public health, to the assessment, SPC, labeling, or

packaging proposed by the RMS, the drug is subsequently granted a national MA in all the Member States (i.e. in the RMS and the Member States Concerned).

Under the above described procedures, before granting the MA, the EMA or the competent authorities of the Member States of the EEA make an assessment of the risk-benefit balance of the drug on the basis of scientific criteria concerning its quality, safety and efficacy.

European Chemical Entity Exclusivity

In Europe, new chemical entities, sometimes referred to as new active substances, qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity. This data exclusivity, if granted, prevents regulatory authorities in the European Union from referencing the innovator's data to assess a generic application for eight years, after which generic marketing authorization can be submitted, and the innovator's data may be referenced, but not approved for two years. The overall ten-year period will be extended to a maximum of 11 years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies.

Rest of the World Regulation

For other countries outside of the Europe and the United States, such as countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, drug licensing, pricing and reimbursement vary from country to country. In all cases the clinical trials must be conducted in accordance with GCP requirements and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Coverage and Reimbursement

Sales of our drugs will depend, in part, on the extent to which our drugs will be covered by third-party payors, such as government health programs, commercial insurance and managed healthcare organizations. These third-party payors are increasingly reducing reimbursements for medical drugs and services. Additionally, the containment of healthcare costs has become a priority of federal and state governments, and the prices of drugs have been a focus in this effort. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic drugs. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. Decreases in third-party reimbursement for our drug candidates, if approved, or a decision by a third-party payor to not cover our drug candidates could reduce physician usage of such drugs and have a material adverse effect on our sales, results of operations and financial condition.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, established the Medicare Part D program to provide a voluntary prescription drug benefit to Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities that provide coverage of outpatient prescription drugs. Unlike Medicare Part A and B, Part D coverage is not standardized. Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug

formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for drugs for which we receive marketing approval. However, any negotiated prices for our drugs covered by a Part D prescription drug plan will likely be lower than the prices we might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

The American Recovery and Reinvestment Act of 2009 provides funding for the federal government to compare the effectiveness of different treatments for the same illness. The plan for the research was published in 2012 by the Department of Health and Human Services, the Agency for Healthcare Research and Quality and the National Institutes for Health, and periodic reports on the status of the research and related expenditures will be made to Congress. Although the results of the comparative effectiveness studies are not intended to mandate coverage policies for public or private payors, it is not clear what effect, if any, the research will have on the sales of our drug candidates, if any such drug or the condition that they are intended to treat are the subject of a trial. It is also possible that comparative effectiveness research demonstrating benefits in a competitor's drug could adversely affect the sales of our drug candidate. If third-party payors do not consider our drugs to be cost-effective compared to other available therapies, they may not cover our drugs after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our drugs on a profitable basis.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the ACA, enacted in March 2010, has had a significant impact on the health care industry. The ACA expanded coverage for the uninsured while at the same time containing overall healthcare costs. With regard to pharmaceutical products, the ACA, among other things, addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected, increased the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extended the rebate program to individuals enrolled in Medicaid managed care organizations, established annual fees and taxes on manufacturers of certain branded prescription drugs, and a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, started in April 2013, and, due to subsequent legislative amendments, will stay in effect through 2024 unless additional Congressional action is taken. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, or the ATRA, which among other things, also reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to

five years. We expect that additional federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare drugs and services, and in turn could significantly reduce the projected value of certain development projects and reduce our profitability.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal drugs for which their national health insurance systems provide reimbursement and to control the prices of medicinal drugs for human use. A member state may approve a specific price for the medicinal drug or it may instead adopt a system of direct or indirect controls on the profitability of the Company placing the medicinal drug on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical drugs will allow favorable reimbursement and pricing arrangements for any of our drugs. Historically, drugs launched in the European Union do not follow price structures of the United States and generally tend to be significantly lower.

Other Healthcare Laws

We may also be subject to healthcare regulation and enforcement by the federal government and the states and foreign governments where we may market our product candidates, if approved. These laws include, without limitation, state and federal anti-kickback, fraud and abuse, false claims, privacy and security and physician sunshine laws and regulations.

The federal Anti-Kickback Statute prohibits, among other things, any person from knowingly and willfully offering, soliciting, receiving or providing remuneration, directly or indirectly, to induce either the referral of an individual, for an item or service or the purchasing or ordering of a good or service, for which payment may be made under federal healthcare programs such as the Medicare and Medicaid programs. The Anti-Kickback Statute is subject to evolving interpretations. In the past, the government has enforced the Anti-Kickback Statute to reach large settlements with healthcare companies based on sham consulting and other financial arrangements with physicians. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act. The majority of states also have anti-kickback laws, which establish similar prohibitions and in some cases may apply to items or services reimbursed by any third-party payor, including commercial insurers.

Additionally, the civil False Claims Act prohibits knowingly presenting or causing the presentation of a false, fictitious or fraudulent claim for payment to the U.S. government. Actions under the False Claims Act may be brought by the Attorney General or as a qui tam action by a private individual in the name of the government. Violations of the False Claims Act can result in very significant monetary penalties and treble damages. The federal government is using the False Claims Act, and the accompanying threat of significant liability, in its investigation and prosecution of pharmaceutical and biotechnology companies throughout the U.S., for example, in connection with the promotion of products for unapproved uses and other sales and marketing practices. The government has obtained multi-million and multi-billion dollar settlements under the False Claims Act in addition to individual criminal convictions under applicable criminal statutes. Given the significant size of actual and potential settlements, it is expected that the government will continue to devote substantial resources to investigating healthcare providers' and manufacturers' compliance with applicable fraud and abuse laws.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, also created new federal criminal statutes that prohibit among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

There has also been a recent trend of increased federal and state regulation of payments made to physicians and other healthcare providers. The ACA, among other things, imposes new reporting requirements on drug manufacturers for payments made by them to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Failure to submit required information may result in civil monetary penalties of up to an aggregate of $150,000 per year (or up to an aggregate of $1 million per year for "knowing failures"), for all payments, transfers of value or ownership or investment interests that are not timely, accurately and completely reported in an annual submission. Drug manufacturers were required to begin collecting data on August 1, 2013 and submit reports to the government by March 31, 2014 and June 30, 2014, and the 90th day of each subsequent calendar year. Certain states also mandate implementation of compliance programs, impose restrictions on drug manufacturer marketing practices and/or require the tracking and reporting of gifts, compensation and other remuneration to physicians.

We may also be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology and Clinical Health Act, or HITECH, and their respective implementing regulations, including the final omnibus rule published on January 25, 2013, imposes specified requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to "business associates," defined as independent contractors or agents of covered entities that create, receive, maintain or transmit protected health information in connection with providing a service for or on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways, thus complicating compliance efforts.

Employees

As of March 23, 2015, we had 61 full-time employees, including 31 employees with M.D. or Ph.D. degrees. Of these full-time employees, 49 employees are engaged in research and development activities and 12 are engaged in general and administrative activities. None of our employees is represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

Facilities

We occupy approximately 20,000 rentable square feet of office and laboratory space in Cambridge, Massachusetts under a lease that expires on October 31, 2015.

On February 11, 2015, we entered into a lease for approximately 38,500 rentable square feet of office and laboratory space in Cambridge, Massachusetts, with a lease term commencing June 15, 2015 and ending on October 31, 2022, assuming occupancy in October 2015. We have an option to extend the lease term for five additional years. We believe that this new office and laboratory space is sufficient to meet our needs for the foreseeable future and that suitable additional space will be available as and when needed.

Legal Proceedings

We are not currently a party to any material legal proceedings.

MANAGEMENT

Executive Officers and Directors

The following table sets forth information regarding our executive officers and directors as of the date hereof:

Name	Age	Position(s)
Executive Officers:		
Jeffrey W. Albers	43	President, Chief Executive Officer and Director
Anthony L. Boral, M.D., Ph.D.	52	Senior Vice President, Clinical Development
Kyle D. Kuvalanka	47	Chief Business Officer
Christoph Lengauer, Ph.D.	49	Chief Scientific Officer
Directors:		
Daniel S. Lynch(1)(2)	56	Chairman
Alexis Borisy(3)(4)	43	Director
George D. Demetri, M.D.(1)(2)(3)(4)	58	Director
Stephen C. Knight, M.D.(5)	54	Director
Nicholas Lydon, Ph.D.(4)	57	Director
Charles A. Rowland, Jr., CPA, MBA(1)(2)(3)	56	Director
Thilo Schroeder, Ph.D.(5)	33	Director

(1) Member of the audit committee.
(2) Member of the compensation committee.
(3) Member of the nominating and corporate governance committee.
(4) Member of the research and development committee.
(5) Each of Drs. Knight and Schroeder will resign from our board of directors upon the declaration of effectiveness of the registration statement of which this prospectus forms a part.

Executive Officers

Jeffrey W. Albers has served as our Chief Executive Officer and President and a member of our board of directors since July 2014. Mr. Albers has more than 20 years of experience in leadership roles in the biopharmaceutical industry. Prior to joining us, from January 2012 to April 2014, he was president of the U.S. subsidiary of Algeta ASA, or Algeta U.S., a Norwegian biopharmaceutical company, where he oversaw the commercial and business functions. At Algeta U.S., Mr. Albers was responsible for the U.S. launch of Radium-223 in metastatic castrate resistant prostate cancer. Prior to Algeta U.S., from July 2005 to November 2011, Mr. Albers was at Genzyme Corporation, or Genzyme, a biotechnology company which is now a wholly-owned subsidiary of Sanofi S.A., most recently as vice president of the U.S. hematology and oncology business unit. Mr. Albers received his B.S. from Indiana University and an M.B.A. and a J.D. from Georgetown University. We believe that Mr. Albers' leadership in the life sciences industry qualifies him to serve on our board of directors.

Anthony L. Boral, M.D., Ph.D. has served as our Senior Vice President, Clinical Development since February 2015. Prior to joining us, from November 2010 to February 2015 Dr. Boral worked at the Novartis Institutes for BioMedical Research, or Novartis, as Executive Director, Oncology Clinical Research, serving as Deputy Site Head for the Cambridge, Massachusetts site since 2013. At Novartis Dr. Boral was responsible for the clinical aspects of various first-in-human compounds, including most recently ceritinib, an anaplastic lymphoma kinase inhibitor, and Novartis' immune checkpoint inhibitor programs. Prior to Novartis, from 2002 to 2010 he worked at Millennium Pharmaceuticals, Inc., or Millennium, a biotechnology company in Cambridge, Massachusetts,

which is now a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited, or Takeda, including as Vice President of Oncology Clinical Research from October 2007 to October 2010. At Millennium, Dr. Boral was responsible for various aspects of the development of VELCADE®, a first-in-class cancer therapy now approved to treat multiple myeloma and non-Hodgkins lymphoma. Dr. Boral received his B.A. from Wesleyan University, and an M.D. and a Ph.D. from the Albert Einstein College of Medicine, in New York.

Kyle D. Kuvalanka has served as our Chief Business Officer since September 2013. Mr. Kuvalanka has more than 15 years of business and strategy experience in the biopharmaceutical industry. Prior to joining us, from March 2002 to September 2013, Mr. Kuvalanka worked at Takeda and Millennium, prior to its takeover by Takeda, including as Vice President, Corporate Strategy and Development from 2009 to 2012 and as Vice President, Business Development, Corporate Strategy and Alliance Management from 2012 to 2013. Earlier in his career at Millennium, Mr. Kuvalanka held leadership positions in finance and led the investor relations effort until the company's acquisition by Takeda. Mr. Kuvalanka holds a B.A. from Wesleyan University and an M.B.A. from The Wharton Business School at the University of Pennsylvania.

Christoph Lengauer, Ph.D. has served as our Chief Scientific Officer since January 2012. Prior to joining us, Dr. Lengauer was Vice President and Global Head of Oncology Drug Discovery and Pre-Clinical Development at Sanofi S.A., a multinational pharmaceutical company, from May 2008 to January 2012. Dr. Lengauer has served as an adjunct associate professor of oncology at the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins University since 2005. Dr. Lengauer received an M.Sc. from the University of Salzburg, Austria, a Ph.D. in biology from the University of Heidelberg, Germany, and an M.B.A. in medical services management from The Johns Hopkins University.

Non-Management Directors

Daniel S. Lynch has served as Chairman of our board of directors since September 2012. Mr. Lynch has served as a venture partner at Third Rock Ventures, or Third Rock, a life sciences venture capital firm focused on the formation, development and strategy of new companies, since May 2013 and as an entrepreneur-in-residence from May 2011 to May 2013. Since 2005, Mr. Lynch has served on the boards of directors of several life sciences companies, including on the board of directors of BIND Therapeutics, Inc. since 2012, on the board of directors of bluebird bio, Inc. since 2011, and on the board of directors of U.S. Oncology, Inc. from 2005 to 2010. Prior to that, Mr. Lynch served as the Chief Financial Officer and then the Chief Executive Officer of ImClone Systems Inc. Mr. Lynch received a B.A. in mathematics from Wesleyan University and an M.B.A. from the Darden Graduate School of Business Administration at the University of Virginia. We believe that Mr. Lynch's experience as a senior executive and service on the boards of directors of other life sciences companies qualifies him to serve as a member of our board of directors.

Alexis Borisy has served as a member of our board of directors since April 2011. Mr. Borisy co-founded Blueprint Medicines and served as our interim Chief Executive Officer from May 2013 through July 2014. Since 2010, Mr. Borisy has been a partner at Third Rock. In addition, since 2011, Mr. Borisy has served as executive chairman of Warp Drive Bio, LLC, a life sciences company focusing on genomics where he served as chief executive officer from 2011 to July 2013. From 2007 to 2012, Mr. Borisy served as chairman of FORMA Therapeutics, Inc., a biopharmaceutical company focused on discovering and developing medicines in cancer and other genetically-driven diseases. Mr. Borisy co-founded Foundation Medicine, Inc. and served as its interim Chief Executive Officer from 2009 to 2011. Mr. Borisy holds an A.B. in chemistry from the University of Chicago, and an A.M. from Harvard University. We believe Mr. Borisy's detailed knowledge of our company and long tenure with us, having served as one of our founders, along with his experience working with

and serving on the boards of directors of life sciences companies and his experience working in the venture capital industry qualifies him to serve on our board of directors.

George D. Demetri, M.D. has served as a member of our board of directors since December 2014. Since 1988, he has served as a Professor of Medicine at Harvard Medical School and as an academic medical oncologist at the Dana-Farber Cancer Institute, or Dana-Farber, and Harvard Medical School. Dr. Demetri's research and clinical interests have centered on mechanism-based drug development for solid tumors, with a particular emphasis on molecularly-defined subsets of sarcomas such as gastrointestinal stromal tumours. Dr. Demetri has contributed to the development of several new drugs for sarcomas and other malignancies, including imatinib, sunitinib, dasatinib, trabectedin, vemurafenib, everolimus, pazopanib and regorafenib. Dr. Demetri serves as chair of the medical advisory board for the Sarcoma Foundation of America as well as several scientific and editorial advisory boards. With an interest in internet-based patient support, he also serves on the Medical Advisory Board of ASCO's CancerNet as well as CancerCommons.org. He received an A.B. in biochemistry from Harvard College and his M.D. from Stanford University School of Medicine. We believe that Dr. Demetri's more than 25 years of experience as an oncologist and his significant leadership experience on various scientific and editorial advisory boards qualifies him to serve as a member of our board of directors.

Stephen C. Knight, M.D. has served as a member of our board of directors since March 2012. Dr. Knight is currently the president and managing partner of Fidelity Biosciences Corp., or Fidelity, a healthcare venture firm owned by Fidelity Investments, which he joined in 2003. Prior to joining Fidelity in 2003, Dr. Knight was president and chief operating officer for EPIX Pharmaceuticals, Inc. in Cambridge, Massachusetts. Dr. Knight currently serves as chairman of the board of directors for FORUM Pharmaceuticals, Inc., a biopharmaceutical company based in Watertown, Massachusetts. Dr. Knight previously served on the boards of several public healthcare companies including FoldRx Pharmaceuticals, Inc., now a wholly-owned subsidiary of Pfizer Inc., Ironwood Pharmaceuticals, Inc. and Respivert, Ltd., which was acquired by Centocor Ortho Biotech Inc., a division of Johnson & Johnson. Dr. Knight holds an M.D. from the Yale University School of Medicine, an M.B.A. from the Yale School of Organization and Management, and a B.S. in biology from Columbia University. We believe that Dr. Knight's detailed knowledge of the life sciences industry and substantial experience as member of the board of directors of numerous other life sciences companies qualifies him to serve on our board of directors. Dr. Knight will resign from our board of directors upon the declaration of effectiveness of the registration statement of which this prospectus forms a part.

Nicholas Lydon, Ph.D. has served as a member of our board of directors since April 2011. He is a scientific founder of Blueprint Medicines. Since 2006, Dr. Lydon has served as a scientific advisor and member of the board of directors of AnaptysBio Inc., a company he co-founded. From 2003 to 2011, Dr. Lydon served as a scientific advisor and member of the board of directors of Ambit Biosciences Corp., a biopharmaceutical company. From 2000 to 2002, Dr. Lydon served as vice president, small molecule drug discovery at Amgen, Inc., or Amgen. Prior to joining Amgen, in 1997 Dr. Lydon founded Kinetix Pharmaceuticals, Inc., or Kinetix, a biotechnology company focused on the discovery and development of selective protein kinase inhibitors, which was acquired by Amgen in 2000, and served as its chief executive officer and on its board of directors. Dr. Lydon earned a B.S. in biochemistry and zoology from the University of Leeds, England, and received his Ph.D. in biochemistry from the Medical Sciences Institute, University of Dundee, Scotland. We believe Dr. Lydon's detailed knowledge of our company and long tenure with us, having served as one of our scientific founders, along with his experience working with and serving on the boards of directors of life sciences companies and his experience as a senior executive with several life sciences companies qualifies him to serve on our board of directors.

Charles A. Rowland, Jr., CPA, MBA, has served as a member of our board of directors since March 2015. Mr. Rowland was the Vice President and Chief Financial Officer of ViroPharma Incorporated, or ViroPharma, an international biopharmaceutical company, from October 2008 until it was acquired by Shire plc in January 2014. Prior to joining ViroPharma, Mr. Rowland was the Executive Vice President and Chief Financial Officer, as well as the interim Co-Chief Executive Officer, for Endo Pharmaceuticals Inc., a specialty pharmaceutical company with a primary focus in pain management, where he served from 2006 to 2008. Mr. Rowland previously held positions of increasing responsibility at Biovail Corporation, Breakaway Technologies, Inc., Pharmacia Corporation, Novartis AG and Bristol-Myers Squibb Co., each a biopharmaceutical company. Mr. Rowland joined the board of directors of Idenix Pharmaceuticals, Inc., a biopharmaceutical company, in June 2013 and served as a member of its audit committee until Idenix was acquired by Shire plc in August 2014. He is a member of the board of directors and chairs the audit committee of Bind Therapeutics, Inc. as of May 2014, Aurinia Pharmaceuticals Inc. as of July 2014 and Vitae Pharmaceuticals, Inc. as of September 2014. Since January 2015, he has served as a member of the supervisory board and chair of the audit committee of Nabriva Therapeutics, AG, a biotechnology company based in Vienna Austria. He is also a member of the board of the Philadelphia chapter of Financial Executives International. Mr. Rowland holds an M.B.A. with a finance concentration from Rutgers's University and a B.S. in Accounting from Saint Joseph's University. We believe that Mr. Rowland's extensive professional experience as a chief financial executive in the biotechnology and pharmaceutical industries and his experience serving as a director of various publicly traded biotechnology companies qualifies him to serve as a member of our board of directors.

Thilo Schroeder, Ph.D. has served as a member of our board of directors since January 2014. Since 2013, he has served as a partner at Nextech Invest Ltd., or Nextech, a global venture fund, focused on investing in oncology companies. Prior to joining Nextech, from 2007 to 2013, Dr. Schroeder was president of SiROP Global, a web based technology company that connects universities in Europe and world-wide. Dr. Schroeder served as an observer of the board of Tracon Pharmaceuticals, a biopharmaceutical company from December 2012 to January 2014. He received a B.Sc. in biology from the Technical University of Darmstadt in Germany, an M.Sc. in biotechnology from the Ecole Supérieure de Biotechnologie de Strasbourg in France, and a Ph.D. in biochemistry from the University of Zurich in Switzerland. We believe that Dr. Schroeder's extensive experience working with various life sciences companies as an executive and a member of the board of directors qualifies him to serve as a member of our board of directors. Dr. Schroeder will resign from our board of directors upon the declaration of effectiveness of the registration statement of which this prospectus forms a part.

Board Composition

As of the date hereof, our board of directors consisted of eight members, and we anticipate that it will consist of six members upon the declaration of effectiveness of the registration statement of which this prospectus forms a part. Currently, each of our directors are members pursuant to the board composition provisions of our existing certificate of incorporation and Second Amended and Restated Stockholders Agreement, dated November 7, 2014, which agreement is described under "Certain Relationships and Related Party Transactions" in this prospectus. These board composition provisions will terminate upon the completion of this offering. Upon the termination of these provisions, there will be no further contractual obligations regarding the election of our directors. Our nominating and corporate governance committee and our board of directors may therefore consider a broad range of factors relating to the qualifications and background of nominees, which may include diversity, which is not only limited to race, gender or national origin. We have no formal policy regarding board diversity. Our nominating and corporate governance committee's and our board of directors' priority in selecting board members is identification of

persons who will further the interests of our stockholders through his or her established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business, understanding of the competitive landscape and professional and personal experiences and expertise relevant to our growth strategy. Our directors hold office until their successors have been elected and qualified or until the earlier of their death, resignation or removal. Our amended and restated certificate of incorporation and amended and restated bylaws that will become effective upon the completion of this offering also provide that our directors may be removed only for cause by the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

Director Independence. Our board of directors currently consists of six members. Our board of directors has determined that two of our six directors, Dr. Demetri and Mr. Rowland, are independent directors, including for purposes of the rules of The NASDAQ Stock Market and relevant federal securities laws and regulations. Pursuant to The NASDAQ Stock Market rules, within a year of the effectiveness of the registration statement of which this prospectus is a part, our board must consist of a majority of independent directors. We intend to be in compliance with these rules within a year of the effectiveness of the registration statement of which this prospectus is a part. The NASDAQ Stock Market independence definition includes a series of objective tests, including that a director is not, and has not been for at least three years, one of our employees and that neither a director nor any of his family members has engaged in various types of business dealings with us. In addition, as required by The NASDAQ Stock Market rules, our board of directors has made a subjective determination as to each independent director that no relationships exist, which, in the opinion of our board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In making these determinations, our board of directors reviewed and discussed information provided by the directors and us with regard to each director's business and personal activities and relationships as they may relate to us and our management. There are no family relationships among any of our directors or executive officers.

Staggered Board. In accordance with the terms of our amended and restated certificate of incorporation and amended and restated bylaws that will become effective upon the completion of this offering, our board of directors will be divided into three staggered classes of directors of the same or nearly the same number and each will be assigned to one of the three classes. Each of Drs. Knight and Schroeder will resign from our board of directors upon the declaration of effectiveness of the registration statement of which this prospectus forms a part. At each annual meeting of the stockholders, a class of directors will be elected for a three-year term to succeed the directors of the same class whose terms are then expiring. The terms of the directors will expire upon the election and qualification of successor directors at the annual meeting of stockholders to be held during the years 2016 for Class I directors, 2017 for Class II directors and 2018 for Class III directors:

- Our Class I directors will be Jeffrey W. Albers and Nicholas Lydon;
- Our Class II directors will be Alexis Borisy and Charles A. Rowland, Jr.; and
- Our Class III directors will be Daniel S. Lynch and George D. Demetri.

Our amended and restated certificate of incorporation and amended and restated by-laws provide that the number of our directors shall be fixed from time to time by a resolution of the majority of our board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class shall consist of one third of the board of directors.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent stockholder efforts to effect a change of our management or a change in control.

Board Committees

Our board of directors plans on establishing four standing committees: an audit committee, a compensation committee, a nominating and corporate governance committee and a research and development committee, each of which will operate pursuant to a charter to be adopted by our board of directors and will be effective upon completion of the offering. Upon the completion of this offering, the composition and functioning of all of our committees will comply with all applicable requirements of the Sarbanes-Oxley Act of 2002, The NASDAQ Stock Market and SEC rules and regulations.

Audit Committee

Effective upon completion of this offering, our audit committee will be comprised of Charles A. Rowland, Jr., George D. Demetri and Daniel S. Lynch, with Charles A. Rowland, Jr. serving as chairman of the committee. Our board of directors has determined that Charles A. Rowland, Jr. and George D. Demetri meet the independence requirements of Rule 10A-3 under the Exchange Act and the applicable NASDAQ Stock Market rules, and have sufficient knowledge in financial and auditing matters to serve on the audit committee. The composition of our audit committee meets the requirements for independence under the listing standards of The NASDAQ Stock Market and the applicable rules of the SEC, including the applicable transition rules. Our board of directors intends to cause our audit committee to be comprised of only directors that are independent under the rules of both The NASDAQ Stock Market and the SEC within one year of the date of this prospectus. Our board of directors has determined that Charles A. Rowland, Jr. is an "audit committee financial expert" within the meaning of the SEC regulations and the applicable rules of The NASDAQ Stock Market. The audit committee's responsibilities upon completion of this offering will include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending, based upon the audit committee's review and discussions with management and the independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- approving all Quarterly Reports on Form 10-Q;

- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related party transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases and scripts as well as any other press releases containing financial information.

Compensation Committee

Effective upon completion of this offering, our compensation committee will be composed of Charles A. Rowland, Jr., George D. Demetri and Daniel S. Lynch, with Charles A. Rowland, Jr. serving as chairman of the committee. Our board of directors has determined that each of Charles A. Rowland, Jr. and George D. Demetri is "independent" as defined in the rules of The NASDAQ Stock Market. The composition of our compensation committee meets the requirements for independence under the listing standards of The NASDAQ Stock Market, including the applicable transition rules. Our board of directors intends to cause our compensation committee to be comprised of only directors that are independent under the rules of The NASDAQ Stock Market within one year of effectiveness of this registration statement. The compensation committee's responsibilities upon completion of this offering will include:

- annually reviewing and approving corporate goals and objectives relevant to the compensation of our chief executive officer;
- evaluating the performance of our chief executive officer in light of such corporate goals and objectives and determining the compensation of our chief executive officer;
- reviewing and approving the compensation of our other executive officers;
- reviewing and establishing our overall management compensation, philosophy and policy;
- overseeing and administering our compensation and similar plans;
- reviewing and approving our policies and procedures for the grant of equity-based awards;
- reviewing and making recommendations to the board of directors with respect to director compensation;
- reviewing and discussing with management the compensation discussion and analysis to be included in our annual proxy statement or Annual Report on Form 10-K; and
- reviewing and discussing with the board of directors corporate succession plans for the chief executive officer and other key officers.

Nominating and Corporate Governance Committee

Effective upon completion of this offering, our nominating and corporate governance committee will be composed of George D. Demetri, Alexis Borisy and Charles A. Rowland, Jr., with George D. Demetri serving as chairman of the committee. Our board of directors has determined that each of Charles A. Rowland, Jr. and George D. Demetri is "independent" as defined in the applicable rules of The NASDAQ Stock Market. The composition of our nominating and corporate governance committee meets the requirements for independence under the listing standards of The NASDAQ Stock Market, including the applicable transition rules. Our board of directors intends to cause our nominating and corporate governance committee to be comprised of only directors that

are independent under the rules of The NASDAQ Stock Market within one year of the date of this prospectus. The nominating and corporate governance committee's responsibilities upon completion of this offering will include:

- developing and recommending to the board of directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by shareholders;
- identifying individuals qualified to become members of the board of directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- developing and recommending to the board of directors a set of corporate governance guidelines; and
- overseeing the evaluation of the board of directors and management.

Our board of directors may establish other committees from time to time.

Research and Development Committee

Effective upon completion of this offering, our research and development committee will be composed of Nicholas Lydon, Alexis Borisy and George D. Demetri, with Nicholas Lydon serving as chairman of the committee. The research and development committee's responsibilities upon completion of this offering will include:

- providing a general oversight function regarding pre-clinical and clinical decision-making through a series of semi-annual pipeline reviews and in-depth assessments of select project strategies and plans;
- providing recommendations regarding key molecules in our discovery and development pipelines through reports and select in-depth project reviews;
- providing recommendations regarding our pipeline/portfolio balance from a scientific and clinical perspective, including new molecular entity versus new indication balance, mechanism balance, target balance and general risk balance;
- providing recommendations regarding key discovery and development strategies to align with our business needs; and
- providing feedback to the board of directors and to our research and development group.

Leadership Structure and Risk Oversight

Our board of directors is currently chaired by Mr. Lynch. As a general policy, our board of directors believes that separation of the positions of chairman and chief executive officer reinforces the independence of the board of directors from management, creates an environment that encourages objective oversight of management's performance and enhances the effectiveness of the board of directors as a whole. As such, Mr. Albers serves as our president and chief executive officer while Mr. Lynch serves as our chairman of the board of directors but is not an officer.

Our board of directors oversees the management of risks inherent in the operation of our business and the implementation of our business strategies. Our board of directors performs this oversight role by using several different levels of review. In connection with its reviews of the operations and corporate functions of our company, our board of directors addresses the primary

risks associated with those operations and corporate functions. In addition, our board of directors reviews the risks associated with our company's business strategies periodically throughout the year as part of its consideration of undertaking any such business strategies.

Each of our board committees also oversees the management of our company's risk that falls within the committee's areas of responsibility. In performing this function, each committee has full access to management, as well as the ability to engage advisors. Our chief executive officer reports to the audit committee and is responsible for identifying, evaluating and implementing risk management controls and methodologies to address any identified risks. In connection with its risk management role, our audit committee meets privately with representatives from our independent registered public accounting firm and our chief executive officer. The audit committee oversees the operation of our risk management program, including the identification of the primary risks associated with our business and periodic updates to such risks, and reports to our board of directors regarding these activities.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time during the prior three years been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee. For a description of transactions between us and members of our compensation committee and affiliates of such members, please see "Certain Relationships and Related Party Transactions."

Code of Business Conduct and Ethics

We plan to adopt a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting, which will be effective upon completion of this offering. Upon the completion of this offering, our code of business conduct and ethics will be available on our website at www.blueprintmedicines.com. We intend to disclose any amendments to the code, or any waivers of its requirements, on our website or in a Current Report on Form 8-K.

EXECUTIVE AND DIRECTOR COMPENSATION

Summary Compensation Table

The following table sets forth the compensation paid or accrued during the fiscal year ended December 31, 2014 to our chief executive officer, our interim chief executive officer and our next two highest-paid executive officers as of December 31, 2014. We refer to these officers as our named executive officers.

Name and Principal Position	Year	Salary ($)	Bonus ($)(1)	Option Awards(2) ($)	Non-equity Incentive Plan Compensation ($)	All Other Compensation ($)	Total ($)
Jeffrey W. Albers(3) *Chief Executive Officer and President*	2014	169,231	141,986	2,060,939	—	—	2,372,156
Alexis Borisy(4) *Interim Chief Executive Officer*	2014	—	—	—	—	—	—
Kyle D. Kuvalanka *Chief Business Officer*	2014	330,000	82,500	52,405	—	—	464,905
Christoph Lengauer, Ph.D. *Chief Scientific Officer*	2014	400,000	120,000	104,809	—	—	624,809

(1) Amounts represent cash bonuses earned for the 12-month period from January 1, 2014 to December 31, 2014 and exclude payments made in 2014 for 2013 bonuses. For Mr. Albers, this amount also includes a $75,000 sign-on bonus paid to him when he commenced employment with us.

(2) Amounts represent the aggregate grant-date fair value of option awards granted to our named executive officers in 2014 computed in accordance with FASB ASC Topic 718. The assumptions used in the valuation of these awards are consistent with the valuation methodologies specified in the notes to our financial statements and discussions in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus. The amounts above reflect our aggregate accounting expense for these awards and do not necessarily correspond to the actual value that will be recognized by the named executive officers.

(3) Mr. Albers became our Chief Executive Officer and President in July 2014. Amounts shown represent compensation earned by Mr. Albers since July 2014.

(4) Mr. Borisy served as Interim Chief Executive Officer from May 2013 to July 2014. Pursuant to our arrangement with Third Rock Ventures, LLC, we incurred consulting fees to Third Rock Ventures, LLC for Mr. Borisy's services as interim Chief Executive Officer. None of these consulting fees were paid directly to Mr. Borisy.

Narrative Disclosure to Summary Compensation Table

Employment Arrangements with our Named Executive Officers

We have entered into an offer letter agreement with each of the named executive officers in connection with their employment with us. Except as noted below, these offer letters provide for "at will" employment and were each subject to execution of our standard confidential information and invention assignment agreement.

Jeffrey W. Albers. We entered into a letter agreement with Mr. Albers on May 29, 2014, and he assumed the role of Chief Executive Officer in July 2014. The agreement entitles Mr. Albers to an initial base salary of $375,000 and eligibility to participate in our bonus pool with a target bonus of 40% of his base salary, with the actual bonus earned based upon the achievement of corporate and individual goals, all as determined by the Board in its discretion. Under the agreement, we agreed to pay Mr. Albers a one-time sign-on bonus of $75,000, reflecting his 12 month commitment to the Company, which was paid in 2014 and which must be repaid if he is terminated by the Company for "cause" within one year of commencing employment. We agreed to make an equity award to Mr. Albers in the form of options to purchase 3,156,700 shares of our common stock with an exercise price equal to the fair market value of our common stock on the day of the option grant,

with such options vesting on the terms set forth in the applicable option agreements with Mr. Albers. This amount represented approximately 4% of our shares on a fully-diluted basis. Pursuant to his letter agreement, Mr. Albers is entitled to 12 months of base salary as severance in the event we terminate his employment without Cause or Mr. Albers terminates his employment for Good Reason (each as defined in the letter agreement), subject to his executing a release of claims in our favor. In addition, in the event Mr. Albers' employment is terminated by us without Cause or by Mr. Albers for Good Reason within 12 months following a change in control, all stock options and other stock based awards held by Mr. Albers will vest and become exercisable and nonforfeitable.

Kyle Kuvalanka. We entered into a letter agreement with Mr. Kuvalanka on August 1, 2013, and he assumed the role of Chief Business Officer in September 2013. The agreement entitles Mr. Kuvalanka to an initial base salary of $330,000 and eligibility to participate in our bonus pool with a target bonus of 25% of his base salary, with the actual bonus earned based upon the achievement of corporate and individual goals agreed to between Mr. Kuvalanka and the Company's Chief Executive Officer. Under the agreement, we agreed to pay Mr. Kuvalanka a one-time sign-on bonus of $50,000, reflecting his 12-month commitment to the Company, which was paid in 2013. We agreed to make an equity award to Mr. Kuvalanka in the form of options to purchase 750,000 shares of our common stock with an exercise price equal to the fair market value of our common stock on the day of the option grant, with such options vesting on the terms set forth in the applicable option agreements with Mr. Kuvalanka. Pursuant to his letter agreement, Mr. Kuvalanka is entitled to 12 months of base salary as severance in the event we terminate his employment without Cause (as defined in the letter agreement).

Christoph Lengauer. We entered into a letter agreement with Dr. Lengauer on November 22, 2011, which was later amended on November 1, 2013. He assumed the role of Chief Scientific Officer in January 2012. The amended agreement entitles Dr. Lengauer to an initial base salary of $400,000 and eligibility to participate in our bonus pool with a target bonus of 30% of his base salary, with the actual bonus earned based upon the achievement of corporate and individual goals agreed to between Dr. Lengauer and the Company's Chief Executive Officer. Under the agreement, we agreed to pay Dr. Lengauer a one-time sign-on bonus of $50,000, reflecting his 12 month commitment to the Company, which was paid in 2013. We agreed to make an equity award to Dr. Lengauer in the form of options to purchase 750,000 shares of our common stock with an exercise price equal to the fair market value of our common stock on the day of the option grant, with such options vesting on the terms set forth in the applicable option agreements with Dr. Lengauer. Pursuant to his letter agreement, as amended, Mr. Lengauer is entitled to 12 months of base salary as severance in the event we terminate his employment without Cause (as defined in the letter agreement), subject to his executing a release of claims in our favor. In addition, upon a change in control, Mr. Lengauer's currently outstanding awards of restricted stock will vest and become nonforfeitable upon such change in control.

Employee Confidentiality, Non-competition, Non-solicitation and Assignment Agreements

Each of our named executive officers has entered into a standard form agreement with respect to confidential information and assignment of inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our proprietary information received during the course of employment and to assign to us any inventions conceived or developed during the course of employment. Such agreement also provides that during the period of the named executive officer's employment and for 12 months thereafter, the named executive officer will not compete with us and will not solicit our employees, consultants, customers or suppliers.

Equity Compensation

Outstanding Equity Awards at December 31, 2014

The following table sets forth information concerning the outstanding equity awards held by each of the named executive officers as of December 31, 2014.

	Option Awards					Stock Awards	
Name	Number of securities underlying unexercised options exercisable (#)	Number of securities underlying unexercised options unexercisable (#)	Number of securities underlying unexercised unearned options (#)	Option exercise price ($/share)	Option expiration date	Number of shares or Units of Stock that have not vested (#)	Market value of shares that have not vested ($)(1)
Jeffrey W. Albers			—			789,175(2)	
		1,176,468(3)		$ 0.34	7/30/2024		
		896,940(4)		$ 0.34	7/30/2024		
	294,117(5)			$ 0.34	7/30/2024		
Kyle D. Kuvalanka			—			127,315(6)	
	176,504	388,311(7)		$ 0.27	9/17/2023		
	6,666	73,334(8)		$ 0.34	8/14/2024		
Christoph Lengauer						281,250(9)	
	81,250	218,750(10)		$ 0.27	11/1/2023		
	13,333	146,667(11)		$ 0.34	8/14/2024		

(1) There was no public market for our common stock at December 31, 2014. We have estimated the market value of the unvested stock awards assuming an initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus.

(2) On July 30, 2014, Mr. Albers was granted an option for 789,175 shares of our common stock, 100% of such option to vest on July 21, 2015. Pursuant to the terms of his option agreement, Mr. Albers early exercised his option on August 8, 2014 in exchange for shares of restricted stock. Pursuant to the terms of Mr. Albers' corresponding restricted stock agreement, the unvested shares will be fully vested on July 21, 2015. Vesting of the restricted shares subject to the agreement accelerates in connection with a change in control.

(3) Represents options to purchase shares of our common stock granted on July 30, 2014. The shares underlying these options vest in four equal tranches and installments as follows: (i) 294,117 vests in five installments at a rate of 65,764.5833 on each of August 21, 2015, September 21, 2015, October 21, 2015 and November 21, 2015, and the remaining 31,058.6668 vests on December 21, 2015, (ii) 294,117 vests in five installments at a rate of 65,764.5833 on each of January 21, 2016, February 21, 2016, March 21, 2016 and April 21, 2016, and the remaining 31,058.6668 vests on May 21, 2016, (iii) 294,117 vests in five installments at a rate of 65,764.5833 on each of January 21, 2017, February 21, 2017, March 21, 2017 and April 21, 2017, and the remaining 31,058.6668 vests on May 21, 2017, and (iv) 294,117 vests in five installments at a rate of 65,764.5833 on each of January 21, 2018, February 21, 2018, March 21, 2018 and April 21, 2018, and the remaining 31,058.6668 vests on May 21, 2018. Vesting of the options subject to the agreement accelerates in connection with a change in control.

(4) Represents options to purchase shares of our common stock granted on July 30, 2014. The shares underlying these options vest in three tranches and installments as follows: (i) 235,646.9311 vests in four installments at a rate of 38,353.1662 on September 21, 2016, and 65,764.5833 on each of October 21, 2016 and November 21, 2016, and 65.764.5983 on December 21, 2016, (ii) 495,057.9996 vests in eight installments at a rate of 34,705.9165 on May 21, 2017 and 65,764.5833 on each of June 21, 2017, July 21, 2017, August 21, 2017, September 21, 2017, October 21, 2017, November 21, 2017 and December 21, 2017, and (ii) 166,235.0693 vests in three installments at a rate of 34,705.9165 on May 21, 2018, 65,764.5833 on June 21, 2018 and 65,764.5695 on July 21, 2018. Vesting of the options subject to the agreement accelerates in connection with a change in control.

(5) Represents options to purchase shares of our common stock granted on July 30, 2014, none of which are vested but are eligible for early exercise. The shares underlying these options vest as follows: (i) 34,705.9165 vests on each of December 21, 2015 and May 21, 2016, (ii) 65,764.5833 vests on each of June 21, 2016, July 21, 2016 and August 21, 2016, and (iii) 27,411.4171 vests on September 21, 2016. Vesting of the options subject to the agreement accelerates in connection with a change in control.

(6) On September 17, 2013, Mr. Kuvalanka was granted an option for 185,185 shares of our common stock, 25% of such option to vest on September 16, 2014, and the remaining unvested shares to vest in equal monthly installments through September 16, 2017. Pursuant to the terms of his option agreement, Mr. Kuvalanka early exercised his option on October 2, 2013 in exchange for shares of restricted stock. Under the terms of Mr. Kuvalanka's corresponding

restricted stock agreement, 25% of the shares vested on September 16, 2014 and the remaining unvested shares will vest in equal monthly installments through September 16, 2017.

(7) Represents options to purchase shares of our common stock granted on September 17, 2013. The shares underlying these options vest as follows: 25% vest on September 16, 2014, with the remainder of the shares vesting in equal monthly installments over the following three years through September 16, 2017.

(8) Represents options to purchase shares of our common stock granted on August 14, 2014. The shares underlying these options vest in equal monthly installments over four years through August 18, 2018.

(9) Under the terms of Dr. Lengauer's December 15, 2011 and January 31, 2013 restricted stock agreements, the remaining unvested shares will vest in equal monthly installments through January 1, 2016 and January 1, 2017, respectively. Vesting of the restricted shares accelerates in connection with a change in control.

(10) Represents options to purchase shares of our common stock granted on November 3, 2013. The shares underlying these options vest in equal monthly installments over four years through November 1, 2017. Vesting of the options subject to the agreement accelerates in connection with a change in control.

(11) Represents options to purchase shares of our common stock granted on August 14, 2014. The shares underlying these options vest in equal monthly installments over four years through August 18, 2018.

Director Compensation

The following table sets forth a summary of the compensation we paid to our non-employee directors during 2014. Other than as set forth in the table and described more fully below, we did not pay any compensation, reimburse any expense of, make any equity awards or non-equity awards to, or pay any other compensation to any of the other non-employee members of our board of directors in 2014. Jeffrey W. Albers, our President and Chief Executive Officer, receives no compensation for his service as a director, and, consequently, is not included in this table. The compensation received by Mr. Albers as an employee during 2014 is presented in the "Summary Compensation Table" above.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)	All Other Compensation ($)	Total ($)
Daniel S. Lynch(1)	—		130,000	130,000
Nicholas Lydon, Ph.D.(2)	—		65,000	65,000
David Schenkein, M.D.(3)	35,000			35,000
George D. Demetri, M.D.(4)	—		100,000	100,000

(1) Mr. Lynch received payment for service as a director and consultant pursuant to a consulting agreement. Amount includes cash bonus of $30,000 earned for the 12-month period from January 1, 2014 to December 31, 2014. As of December 31, 2014, Mr. Lynch held 1,500,000 shares of restricted common stock.

(2) Mr. Lydon received payment for service as a consultant pursuant to a consulting agreement. As of December 31, 2014, Mr. Lydon held 1,500,000 shares of restricted common stock.

(3) Dr. Schenkein received payment for service as a director pursuant to a board service agreement. As of December 31, 2014, trusts for the benefit of Dr. Schenkein and certain of his family members held 185,000 shares of restricted common stock.

(4) Dr. Demetri received payment for service as an advisor pursuant to an advisory agreement. As of December 31, 2014, Dr. Demetri held an option to purchase 50,000 shares of common stock and 100,000 shares of restricted common stock.

Compensation Risk Assessment

We believe that our executive compensation program does not encourage excessive or unnecessary risk taking. This is primarily due to the fact that our compensation programs are designed to encourage our executive officers and other employees to remain focused on both short-term and long-term strategic goals, in particular in connection with our pay-for-performance compensation philosophy. As a result, we do not believe that our compensation programs are reasonably likely to have a material adverse effect on us.

Equity Compensation Plans and Other Benefit Plans

2011 Stock Option Plan

The 2011 Stock Option Plan, was approved by our board of directors and our stockholders on April 4, 2011 and was most recently amended on February 10, 2015. Under the 2011 Stock Option Plan, 19,750,100 shares of common stock have been reserved for issuance in the form of incentive stock options, non-qualified stock options, restricted stock, unrestricted stock, restricted stock units, or any combination of the foregoing. The shares issuable pursuant to awards granted under the 2011 Stock Option Plan are authorized but unissued shares.

The 2011 Stock Option Plan is administered by our board or at the discretion of the board, a committee of the board comprised of not less than two (2) directors, which has full power to select the employees, directors and service providers to whom awards will be granted and to determine the specific terms and conditions of each award, subject to the provisions of the 2011 Stock Option Plan.

The option exercise price of each option granted under the 2011 Stock Option Plan is determined by our board and may not be less than the fair market value of a share of common stock on the date of grant. The term of each option is fixed by the board and may not exceed ten years from the date of grant. The board determines at what time or times each option may be exercised when granting the option.

The board of directors may grant awards under the 2011 Stock Option Plan entitling the participants to acquire shares of common stock subject to the right of repurchase (or forfeiture if issued at no cost) in the event the conditions specified by the board in connection with the awards are not met. The board may also grant awards of restricted stock units under the 2011 Stock Option Plan entitling the participants to receive shares of common stock or cash at the time the awards vest.

The board of directors may also grant other stock-based awards under the 2011 Stock Option Plan such as stock appreciation rights and other types of awards which entitle the participants to receive shares of common stock or cash in the future.

The 2011 Stock Option Plan provides that, upon a sale transaction of the Company, unless provision is made in connection with the sale transaction in the sole discretion of the parties thereto for the assumption or continuation of the awards by the successor entity or substitution of the awards with new awards of the successor entity, with appropriate adjustment, all options not exercised will terminate upon the closing of the sale transaction, and all restricted stock and restricted stock unit awards will be forfeited immediately prior to the closing of the sale transaction.

Our board may amend the 2011 Stock Option Plan but no such action may adversely affect the rights of an award holder without such holder's consent. Approval by our stockholders of amendments to the 2011 Stock Option Plan must be obtained if required by law.

As of December 31, 2014, options to purchase 7,344,277 shares of common stock were outstanding, and 8,351,086 shares of restricted stock were outstanding under the 2011 Stock Option Plan. Our board has determined not to make any further awards under the 2011 Stock Option Plan following the completion of this offering.

2015 Stock Option Plan

Our 2015 Stock Option Plan, or the 2015 Stock Option Plan, was adopted by our board of directors and approved by our stockholders in , 2015 and will become effective immediately prior to the closing of this offering. The 2015 Stock Option Plan will replace the 2011 Stock Option Plan. The 2015 Stock Option Plan provides us flexibility to use various equity-based

incentive and other awards as compensation tools to motivate our workforce. These tools include stock options, stock appreciation rights, restricted stock, restricted stock units, unrestricted stock, performance share awards and cash-based awards.

We have initially reserved sha res of our common stock for the issuance of awards under the 2015 Stock Option Plan (including shares of common stock reserved for issuance under our 2011 Stock Option Plan, which will be added to the shares reserved under the 2015 Stock Option Plan), which will be cumulatively increased by % of the number of shares of common stock issued and outstanding on the immediately preceding December 31. This number is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

The shares issuable pursuant to awards granted under the 2015 Stock Option Plan will be authorized but unissued shares or shares that we reacquire. The shares of common stock underlying any awards from the 2015 Stock Option Plan and the 2011 Stock Option Plan that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without any issuance of common stock, expire or are otherwise terminated (other than by exercise) under the 2015 Stock Option Plan will be added back to the shares available for issuance under the 2015 Stock Option Plan.

Under the 2015 Stock Option Plan, stock options or stock appreciation rights with respect to no more than shares may be granted to any one individual in any one calendar year and the maximum aggregate number of shares that may be issued in the form of incentive stock options shall not exceed the initial number of shares reserved and available for issuance under the 2015 Stock Option Plan.

The 2015 Stock Option Plan will be administered by the compensation committee of the board of directors. The compensation committee has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, to make any combination of awards to participants, and to determine the specific terms and conditions of each award, subject to the provisions of the 2015 Stock Option Plan. Employees, nonemployee directors and other key persons (including consultants) are eligible to receive awards under the 2015 Stock Option Plan.

The 2015 Stock Option Plan permits the granting of both options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and options that do not so qualify. The exercise price of each stock option will be determined by our compensation committee but may not be less than 100% of the fair market value of our common stock on the date of grant or, in the case of an incentive stock option granted to a 10% owner, less than 110% of the fair market value of our common stock on the date of grant. The term of each stock option will be fixed by the compensation committee and may not exceed ten years from the date of grant (or five years in the case of an incentive stock option granted to a 10% owner). The compensation committee will also determine the vesting schedule for granted stock options.

The compensation committee may award stock appreciation rights subject to such conditions and restrictions as it may determine. Stock appreciation rights entitle the recipient to shares of common stock, or cash, equal to the value of the appreciation in our stock price over the exercise price. The exercise price of each stock appreciation right may not be less than 100% of the fair market value of the common stock on the date of grant.

The compensation committee may award restricted stock or restricted stock units to participants subject to such conditions and restrictions as it may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment or service with us through a specified vesting period. The compensation committee may also grant cash-based awards to participants subject to such conditions and restrictions as it

may determine. Our compensation committee may also grant shares of common stock that are free from any restrictions under the 2015 Stock Option Plan. Unrestricted stock may be granted to participants in recognition of past services or for other valid consideration and may be issued in lieu of cash compensation due to such participant.

The compensation committee may grant performance share awards to participants that entitle the recipient to receive share awards of common stock upon the achievement of certain performance goals and such other conditions as our compensation committee shall determine.

The compensation committee may grant cash bonuses under the 2015 Stock Option Plan to participants, subject to the achievement of certain performance goals.

The compensation committee may grant performance-based awards to participants in the form of restricted stock, restricted stock units, performance shares or cash-based awards upon the achievement of certain performance goals and such other conditions as the compensation committee shall determine. The compensation committee may grant such performance-based awards under the 2015 Stock Option Plan that are intended to qualify as "performance-based compensation" under Section 162(m) of the Code. Those awards would only vest or become payable upon the attainment of performance goals that are established by our compensation committee and related to one or more performance criteria. The performance criteria that could be used with respect to any such awards include: total shareholder return, earnings before interest, taxes, depreciation and amortization, net income (loss) (either before or after interest, taxes, depreciation and/or amortization), changes in the market price of our common stock, economic value-added, sales or revenue, development, clinical or regulatory milestones, acquisitions or strategic transactions, operating income (loss), cash flow (including, but not limited to, operating cash flow and free cash flow), return on capital, assets, equity, or investment, return on sales, gross or net profit levels, productivity, expense, margins, operating efficiency, customer satisfaction, working capital, earnings (loss) per share of stock, sales or market shares and number of customers, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group. From and after the time that we become subject to Section 162(m) of the Code, the maximum award that is intended to qualify as "performance-based compensation" under Section 162(m) of the Code that may be made to any one employee during any one calendar year period is shares with respect to a stock-based award and $ with respect to a cash-based award.

The 2015 Stock Option Plan provides that upon the effectiveness of a "sale event," as defined in the 2015 Stock Option Plan, all options and stock appreciation rights that are not exercisable immediately prior to the effective time of the sale event shall become fully exercisable as of the effective time of the sale event, all other awards with time-based vesting, conditions or restrictions, shall become fully vested and nonforfeitable as of the effective time of the sale event and all awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in the discretion of the compensation committee and all awards granted under the 2015 Stock Option Plan shall terminate. In addition, in connection with the termination of the 2015 Stock Option Plan upon a sale event, we may make or provide for a cash payment to participants holding options and stock appreciation rights equal to the difference between the per share cash consideration payable to stockholders in the sale event and the exercise price of the options or stock appreciation rights.

Our board of directors may amend or discontinue the 2015 Stock Option Plan and our compensation committee may amend or cancel outstanding awards for purposes of satisfying changes in law or any other lawful purpose, including option repricing, but no such action may adversely affect rights under an award without the holder's consent. Certain amendments to the 2015 Stock Option Plan may require the approval of our stockholders.

No awards may be granted under the 2015 Stock Option Plan after the date that is ten years from the date of stockholder approval of the 2015 Stock Option Plan.

Other Compensation

We currently maintain broad-based benefits that are provided to all employees, including health insurance, life and disability insurance and dental insurance.

401(k) Plan

We maintain a 401(k) plan for employees. The 401(k) plan is intended to qualify under Section 401(k) of the Internal Revenue Service Code of 1986, as amended, so that contributions to the 401(k) plan by employees or by us, and the investment earnings thereon, are not taxable to the employees until withdrawn from the 401(k) plan, and so that contributions by us, if any, will be deductible by us when made. Under the 401(k) plan, employees may elect to reduce their current compensation by up to the statutorily prescribed annual limit and to have the amount of such reduction contributed to the 401(k) plan. The 401(k) plan permits us to make contributions up to the limits allowed by law on behalf of all eligible employees. Historically, we have not made any matching contributions to the 401(k) plan.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from the director or officer. The director or officer may amend or terminate the plan in limited circumstances. Our directors and executive officers may also buy or sell additional shares of our common stock outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a description of transactions since January 1, 2012 to which we have been a party, in which the amount involved exceeds $120,000, and in which any of our directors, executive officers or holders of more than 5% of our capital stock, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest. We believe the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, from unaffiliated third parties.

In connection with this offering, we plan to adopt a written policy, effective upon completion of this offering, that requires all future transactions between us and any director, executive officer, holder of 5% or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of them, or any other related persons (as defined in Item 404 of Regulation S-K) or their affiliates, in which the amount involved is equal to or greater than $120,000, be approved in advance by our audit committee. Any request for such a transaction must first be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee is to consider the relevant facts and circumstances available and deemed relevant to the audit committee, including, but not limited to, the extent of the related party's interest in the transaction, and whether the transaction is on terms no less favorable to us than terms we could have generally obtained from an unaffiliated third party under the same or similar circumstances.

All of the transactions described below were entered into prior to the adoption of this written policy but each was approved by our board of directors. Prior to our board of directors' consideration of a transaction with a related person, the material facts as to the related person's relationship or interest in the transaction were disclosed to our board of directors, and the transaction was not approved by our board of directors unless a majority of the directors approved the transaction. Our current policy with respect to approval of related person transactions is not set forth in writing.

Sales and Purchases of Securities

Series A Financing

In April 2011, we entered into a Series A convertible preferred stock purchase agreement, or the Series A purchase agreement, pursuant to which we agreed to issue and sell to investors an aggregate of 25,000,000 shares of our Series A Preferred Stock at a purchase price of $1.00 per share. These shares were to be issued in three tranches with the first tranche consisting of 10,000,000 shares and the last two tranches of 7,500,000 shares each. The first tranche of Series A Preferred Stock was issued in April 2011. In connection with the first tranche described above, certain convertible promissory notes, along with accrued but unpaid interest thereon, were automatically converted into an aggregate of 525,315 shares of our Series A Preferred Stock.

The Series A purchase agreement was subsequently amended in February 2012 to provide for the issuance of the remaining 15,000,000 shares in three tranches of 5,000,000 shares each. These tranches were issued in February 2012, March 2012 and October 2012, respectively. In January 2013, the Series A purchase agreement was further amended to provide for the issuance of an additional 15,000,000 shares of Series A Preferred Stock in three tranches. These tranches were issued in January and September of 2013.

The table below sets forth the aggregate number of shares of Series A Preferred Stock sold to our directors, executive officers or holders of more than 5% of our capital stock, or an affiliate or immediate family member thereof:

Name	Shares	Aggregate Purchase Price
Third Rock Ventures II, L.P.	30,000,000	$ 30,000,000
Beacon Bioventures Fund III Limited Partnership	10,000,000	$ 10,000,000

Series B Financing

In January 2014, we issued an aggregate of 20,916,663 shares of our Series B Preferred Stock at a purchase price of $1.20 per share for aggregate consideration of $25.1 million to seven investors. The table below sets forth the number of shares of Series B Preferred Stock sold to our directors, executive officers or holders of more than 5% of our capital stock, or an affiliate or immediate family member thereof:

Name	Shares	Aggregate Purchase Price
Third Rock Ventures II, L.P.	7,833,333	$ 9,399,999.60
Beacon Bioventures Fund III Limited Partnership	2,583,333	$ 3,099,999.60
David P. Schenkein 2004 Revocable Trust	41,666	$ 49,999.20
Amy Schenkein 2004 Revocable Trust	41,666	$ 49,999.20

Series C Financing

In November 2014, we issued an aggregate of 24,154,589 shares of our Series C Preferred Stock at a purchase price of $2.07 per share for aggregate consideration of $49.9 million to eighteen investors. The table below sets forth the number of shares of Series C Preferred Stock sold to our directors, executive officers or holders of more than 5% of our capital stock, or an affiliate or immediate family member thereof:

Name	Shares	Aggregate Purchase Price
Third Rock Ventures II, L.P.	1,328,502	$ 2,749,999.14
Beacon Bioventures Fund III Limited Partnership	483,092	$ 1,000,000.44
David P. Schenkein 2004 Revocable Trust	60,386	$ 124,999.02
Amy Schenkein 2004 Revocable Trust	60,386	$ 124,999.02

Agreements with Stockholders

In connection with the Series C Preferred Stock financing, we entered into the Second Amended and Restated Investors' Rights Agreement, or Investor's Rights Agreement, dated as of November 7, 2014, with certain of our stockholders, including our principal stockholders and their affiliates and the Second Amended and Restated Stockholders Agreement, or Stockholders Agreement, dated as of November 7, 2014, with certain of our stockholders, including our principal stockholders and their affiliates. All of the provisions of these agreements will terminate immediately upon completion of the offering, other than the provisions relating to registration rights, which will continue in effect following completion of the offering and entitle the holders of such rights to have us register their shares of our common stock for sale in the United States. See "Description of Capital Stock — Registration Rights."

Since inception, we have received consulting and management services from Third Rock Ventures LLC, or Third Rock Ventures, which through its affiliates, has a controlling interest in us. We have paid Third Rock Ventures $3.3 million for these services, including the reimbursement of

expenses, from inception through the date of this prospectus. We do not have a written agreement in place with Third Rock Ventures with respect to the provision of consulting and management services. From time to time and at our request, partners and associates of Third Rock Ventures provide us with certain strategic and ordinary course business operations consulting services at fees mutually agreed upon in advance by us and Third Rock Ventures. For example, Third Rock Ventures provided us with the services of Entrepreneurs in Residence, who provided us with scientific leadership services and with executive services. Third Rock Ventures also provided us with the services of its partners, who provided business development advice and executive advice. The consulting and management services fees are payable to Third Rock Ventures pursuant to invoices submitted to us by Third Rock Ventures from time to time. The consulting and management services fees paid to Third Rock Ventures did not exceed 5% of the consolidated gross revenue of Third Rock Ventures during any of the past three fiscal years.

Director and Executive Officer Compensation

Please see "Executive and Director Compensation — Director Compensation" for a discussion of options granted to our non-employee directors. Please see "Executive and Director Compensation — Equity Compensation" for additional information regarding compensation of executive officers.

Employment Agreements

We have entered into offer letters with our executive officers. For more information regarding these agreements, see "Executive and Director Compensation — Employment Agreements with Our Named Executive Officers."

Indemnification Agreements and Directors' and Officers' Liability Insurance

In connection with this offering, we have entered into indemnification agreements with each of our executive officers and directors. We also maintain a general liability insurance policy which covers certain liabilities of directors and officers of our company arising out of claims based on acts or omissions in their capacities as directors or officers.

Registration Rights Agreements

We and certain holders of our convertible preferred stock have entered into an Investor's Rights Agreement pursuant to which these stockholders will have, among other things, registration rights under the Securities Act of 1933, as amended, with respect to common stock that they will hold following this offering. Upon the closing of this offering, all outstanding shares of our convertible preferred stock will be converted into common stock. See "Description of Capital Stock — Registration Rights" for a further description of the terms of these agreements.

PRINCIPAL STOCKHOLDERS

The following table sets forth information relating to the beneficial ownership of our common stock as of December 31, 2014, by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our outstanding shares of common stock;
- each of our directors;
- each of our named executive officers; and
- all directors and executive officers as a group.

The number of shares beneficially owned by each entity, person, director or executive officer is determined in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares over which the individual has sole or shared voting power or investment power as well as any shares that the individual has the right to acquire within 60 days of December 31, 2014 through the exercise of any stock option, warrants or other rights. Except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock held by that person.

The percentage of shares beneficially owned is computed on the basis of 97,274,004 shares of our common stock outstanding as of December 31, 2014, which reflects the assumed conversion of all of our outstanding shares of preferred stock into an aggregate of 85,071,252 shares of common stock. Shares of our common stock that a person has the right to acquire within 60 days of December 31, 2014 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated below, the

address for each beneficial owner listed is c/o Blueprint Medicines Corporation, 215 First Street, Cambridge, MA 02142.

Name and address of beneficial owner(1)	Number of shares beneficially owned	Percentage of shares beneficially owned	
		Before offering	After offering
5% or greater stockholders:			
Third Rock Ventures II, L.P.(2)	40,661,885	41.80%	
Beacon Bioventures Fund III Limited Partnership(3)	13,066,425	13.43%	
Directors and named executive officers:			
Jeffrey W. Albers(4)	1,083,292	1.11%	
Anthony L. Boral	—	—	
Alexis Borisy(5)	100,000	*	
George Demetri(6)	150,000	*	
Christoph Lengauer(7)	1,013,750	1.04%	
Stephen C. Knight	—	—	
Kyle Kuvalanka(8)	395,219	*	
Nicholas Lydon(9)	1,500,000	1.54%	
Daniel S. Lynch(10)	1,500,000	1.54%	
David Schenkein(11)	389,104	*	
Thilo Schroeder(12)	3,641,304	3.74%	
All executive officers and directors as a group (11 persons)	9,772,669	9.98%	

* Represents beneficial ownership of less than one percent of our outstanding common stock.

(1) Unless otherwise indicated, the address for each beneficial owner is c/o Blueprint Medicines Corporation, 215 First Street, Cambridge, Massachusetts 02142.

(2) Consists of (i) 30,000,000 shares of common stock issuable upon conversion of series A convertible preferred stock held by Third Rock Ventures II, L.P. ("TRV LP"), (ii) 7,833,333 shares of common stock issuable upon conversion of series B convertible preferred stock held by TRV LP, (iii) 1,328,502 shares of common stock issuable upon conversion of series C convertible preferred stock held by TRV LP, and (d) 1,500,000 shares of common stock held by TRV LP. Each of Third Rock Ventures II GP, LP ("TRV GP"), the general partner of TRV LP, and Third Rock Ventures GP, LLC ("TRV LLC"), the general partner of TRV GP, and Mark Levin, Kevin Starr and Robert Tepper, the managers of TRV LLC, may be deemed to share voting and investment power over the shares held of record by TRV LP. The address of TRV LP is 29 Newbury Street, Suite 401, Boston, MA 02142.

(3) Consists of (i) 10,000,000 shares of common stock issuable upon conversion of series A convertible preferred stock held by Beacon Bioventures Fund III Limited Partnership ("Beacon Fund"), (ii) 2,583,333 shares of common stock issuable upon conversion of series B convertible preferred stock held by Beacon Fund, and (iii) 483,092 shares of common stock issuable upon conversion of series C convertible preferred stock held by Beacon Fund. Beacon Bioventures Advisors Fund III Limited Partnership ("Advisors Fund") is the general partner of Beacon Fund. Advisors Fund is solely managed by Impresa Management LLC ("Impresa"), its general partner and investment manager. Impresa is owned by the shareholders and certain employees of FMR LLC. Impresa is managed on a day-to-day basis by its President, Paul L. Mucci, and as and as such Mr. Mucci may be deemed to share voting

and dispositive power with respect to all shares held by Beacon Fund. Each of the individuals and entities listed above expressly disclaims beneficial ownership of the securities listed above except to the extent of any pecuniary interest therein. The address for each of the individuals and entities listed above is One Main Street, Cambridge, MA 02142.

(4) Consists of (i) 294,117 shares of common stock issuable upon exercise of stock options within 60 days of December 31, 2014, none of which are vested but are eligible for early exercise, and (ii) 789,175 shares acquired upon an early exercise and held of record by Mr. Albers, all of which are subject to a right of repurchase by us if Mr. Albers does not satisfy the option's vesting requirements. Shares acquired upon an early exercise may not be disposed of until the vesting period has been satisfied.

(5) Consists of 100,000 shares of restricted stock Mr. Borisy holds in his individual capacity.

(6) Consists of (i) 100,000 shares of restricted stock, and (ii) 50,000 options to purchase shares of common stock that are exercisable as of December 31, 2014 or will become exercisable within 60 days after such date.

(7) Consists of (i) 900,000 shares of restricted stock, and (ii) 113,750 options to purchase common stock that are exercisable as of December 31, 2014 or will become exercisable within 60 days after such date.

(8) Consists of (i) 210,034 options to purchase common stock that are exercisable as of December 31, 2014 or will become exercisable within 60 days after such date, and (ii) 185,185 shares acquired upon an early exercise and held of record by Mr. Kuvalanka, of which 127,315 shares are subject to a right of repurchase by us if Mr. Kuvalanka does not satisfy the option's vesting requirements. Shares acquired upon an early exercise may not be disposed of until the vesting period has been satisfied.

(9) Consists of 1,500,000 shares of restricted stock.

(10) Consists of 1,500,000 shares of restricted stock.

(11) Includes (i) 83,332 shares of common stock issuable upon conversion of Series B convertible preferred stock held in trusts for the benefit of Dr. Schenkein and certain of his family members, and (ii) 120,772 shares of common stock issuable upon conversion of Series C convertible preferred stock held in such trusts. Dr. Schenkein has voting and dispositive power over the shares held by such trusts.

(12) Represents (a) 2,916,666 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Nextech III Oncology, LPCI ("Nextech III"), and (b) 724,638 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Nextech III. The general partner of Nextech III is Nextech III GP Ltd. Alfred Scheidegger, Rudolf Gygax and Roland Ruckstuhl are the managing members of Nextech III GP Ltd. and may be deemed to share dispositive voting and investment power over the shares held by Nextech III. Each of these individuals disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein. Mr. Schroeder, a member of our board of directors, is a partner of Nextech Invest AG, the investment advisor of Nextech III GP Ltd., and may be deemed to have voting and investment power over the shares held by Nextech III. Mr. Schroeder disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein.

DESCRIPTION OF CAPITAL STOCK

General

Upon the completion of this offering, our authorized capital stock will consist of shares of common stock, par value $0.001 per share, and shares of preferred stock, par value $0.001 per share, all of which will be undesignated, and there will be shares of common stock outstanding and no shares of convertible preferred stock outstanding. As of December 31, 2014, we had approximately 90 record holders of our capital stock. All of our outstanding shares of convertible preferred stock will automatically convert into shares of our common stock upon the completion of this offering. In addition, upon completion of this offering, options to purchase shares of our common stock will be outstanding and shares of our common stock will be reserved for future grants under our stock option plans.

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated by-laws are summaries of material terms and provisions and are qualified by reference to our amended and restated certificate of incorporation and amended and restated by-laws, copies of which have been filed with the SEC as exhibits to the registration statement of which this prospectus is a part. The descriptions of our common stock and preferred stock reflect amendments to our amended and restated certificate of incorporation and amended and restated by-laws that will become effective immediately prior to the completion of this offering

Common Stock

Upon the completion of this offering, we will be authorized to issue one class of common stock. Holders of our common stock are entitled to one vote for each share of common stock held of record for the election of directors and on all matters submitted to a vote of stockholders. Holders of our common stock are entitled to receive dividends ratably, if any, as may be declared by our board of directors out of legally available funds, subject to any preferential dividend rights of any convertible preferred stock then outstanding. Upon our dissolution, liquidation or winding up, holders of our common stock are entitled to share ratably in our net assets legally available after the payment of all our debts and other liabilities, subject to the preferential rights of any preferred stock then outstanding. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future. Except as described under "Antitakeover Effects of Delaware Law and Provisions of our Amended and Restated Certificate of Incorporation and Amended and Restated By-laws" below, a majority vote of the holders of common stock is generally required to take action under our amended and restated certificate of incorporation and amended and restated by-laws.

Preferred Stock

Upon the completion of this offering, our board of directors will be authorized, without action by the stockholders, to designate and issue up to an aggregate of shares of preferred stock in one or more series. Our board of directors can designate the rights, preferences and privileges of the shares of each series and any of its qualifications, limitations or restrictions. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of common stock. The issuance of preferred stock, while providing flexibility in connection with possible future financings and acquisitions and other corporate purposes could, under certain circumstances, have the effect of restricting dividends on our common stock, diluting the voting power of our common stock,

impairing the liquidation rights of our common stock, or delaying, deferring or preventing a change in control of our company, which might harm the market price of our common stock. See also "Antitakeover Effects of Delaware Law and Provisions of our Amended and Restated Certificate of Incorporation and Amended and Restated By-laws — Provisions of Our Amended and Restated Certificate of Incorporation and Amended and Restated By-Laws — Undesignated Preferred Stock" below.

Our board of directors will make any determination to issue such shares based on its judgment as to our company's best interests and the best interests of our stockholders. Upon the completion of this offering, we will have no shares of preferred stock outstanding and we have no current plans to issue any shares of preferred stock following completion of this offering.

Warrants

As of December 31, 2014, warrants to purchase a total of 150,000 shares of our Series A Preferred Stock were outstanding with an exercise price of $1.00 per share. These warrants to purchase 150,000 shares of Series A Preferred Stock, which will be converted into warrants to purchase 150,000 shares of common stock upon completion of this offering, are exercisable immediately and expire on May 24, 2023. As of December 31, 2014, warrants to purchase a total of 83,333 shares of our Series B Preferred Stock were outstanding with an exercise price of $1.20 per share. These warrants to purchase 83,333 shares of Series B Preferred Stock, which will be converted into warrants to purchase 83,333 shares of common stock upon completion of this offering, are exercisable immediately and expire on November 3, 2024.

Registration Rights

We entered into a second amended and restated investors' rights agreement, dated as of November 7, 2014, or Investors' Rights Agreement, with the holders of shares of our common stock issuable upon conversion of the shares of convertible preferred stock. These shares will represent approximately % of our outstanding common stock after this offering, or % if the underwriters exercise their option to purchase additional shares in full. These shares also may be sold under Rule 144 under the Securities Act of 1933, as amended, depending on their holding period and subject to restrictions in the case of shares held by persons deemed to be our affiliates.

Under the Investors' Rights Agreement, holders of registrable shares can demand that we file a registration statement or request that their shares be included on a registration statement that we are otherwise filing, in either case, registering the resale of their shares of common stock. These registration rights are subject to conditions and limitations, including the right, in certain circumstances, of the underwriters of an offering to limit the number of shares included in such registration and our right, in certain circumstances, not to effect a requested S-1 registration within 60 days before or 180 days following any offering of our securities, including this offering or a requested S-3 registration within 30 days before or 90 days following any offering of our securities, including this offering.

Demand Registration Rights

Following the six month anniversary of the date of this prospectus, the holders of at least a majority of our registrable shares may require us to file a registration statement under the Securities Act on a Form S-1 or S-3, if available, at our expense with respect to the resale of their registrable shares, and we are required to use our best efforts to effect the registration.

Piggyback Registration Rights

If we propose to register any of our securities under the Securities Act for our own account or the account of any other holder, the holders of registrable shares are entitled to notice of such registration and to request that we include registrable shares for resale on such registration statement, subject to the right of any underwriter to limit the number of shares included in such registration.

We will pay all registration expenses, other than underwriting discounts and commissions, related to any demand or piggyback registration. The Investors' Rights Agreement contains customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders, in the event of misstatements or omissions in the registration statement attributable to us except in the event of fraud and they are obligated to indemnify us for misstatements or omissions attributable to them.

The registration rights will terminate upon the later of the date on which all registrable shares have been sold and the fifth anniversary of the closing date of this offering.

Stockholders Agreement

We entered into a second amended and restated stockholders agreement, dated as of November 7, 2014, or Stockholders Agreement, with all holders of our convertible preferred stock and certain holders of our common stock. This agreement provides for certain rights and obligations, such as board composition requirements and stock transfer restrictions. This agreement will terminate upon the completion of this offering; however, the lock-up provision under the Stockholders Agreement will survive termination pursuant to the terms of the agreement. The lock-up provision under the Investors' Rights Agreement will also be in effect in connection with this offering. See "Shares Eligible for Future Sales — Lock-up Agreements."

Anti-takeover Effects of Delaware Law, Our Amended and Restated Certificate of Incorporation and Our Amended and Restated By-laws

Our amended and restated certificate of incorporation and amended and restated by-laws that will take effect in connection with the closing of this offering include a number of provisions that may have the effect of encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board Composition and Filling Vacancies

In accordance with our amended and restated certificate of incorporation, our board is divided into three classes serving three-year terms, with one class being elected each year. Our amended and restated certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of % or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office, even if less than a quorum.

No Written Consent of Stockholders

Our amended and restated certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting.

Meetings of Stockholders

Our amended and restated by-laws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our amended and restated by-laws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements

Our amended and restated by-laws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days or more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. The notice must contain certain information specified in the amended and restated by-laws. These provisions may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

Amendment to By-laws and Certificate of Incorporation

As required by the Delaware General Corporation Law, any amendment of our amended and restated certificate of incorporation must first be approved by a majority of our board of directors and, if required by law or our amended and restated certificate of incorporation, thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment, and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, directors, limitation of liability, exclusive jurisdiction of Delaware Courts and the amendment of our amended and restated by-laws and amended and restated certificate of incorporation must be approved by not less than 75% of the outstanding shares entitled to vote on the amendment, and not less than 75% of the outstanding shares of each class entitled to vote thereon as a class. Our amended and restated by-laws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the amended and restated by-laws; and may also be amended by the affirmative vote of at least 75% of the outstanding shares entitled to vote on the amendment, or, if the board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Blank Check Preferred Stock

Our amended and restated certificate of incorporation provides for authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of us or our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our amended and restated certificate of

incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Section 203 of the Delaware General Corporation Law

Upon completion of this offering, we will be subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation's voting stock.

Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or
- at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its amended and restated certificate of incorporation or by-laws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Exclusive Jurisdiction of Certain Actions

Our amended and restated certificate of incorporation requires, to the fullest extent permitted by law, that derivative actions brought in our name, actions against our directors, officers and employees for breach of fiduciary duty and other similar actions may be brought only in the Court of Chancery in the State of Delaware, unless we otherwise consent. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

NASDAQ Global Market Listing

We intend to apply to list our common stock on The NASDAQ Global Market under the trading symbol "BPMC."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be Computershare Trust Company, N.A. The transfer agent and registrar's address is 250 Royall Street, Canton, Massachusetts, 02021.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. Future sales of our common stock, including shares issued upon the exercise of outstanding options or warrants, in the public market after this offering, or the perception that those sales may occur, could cause the prevailing market price for our common stock to fall or impair our ability to raise equity capital in the future. As described below, only a limited number of shares of our common stock will be available for sale in the public market for a period of several months after completion of this offering due to contractual and legal restrictions on resale described below. Future sales of our common stock in the public market either before (to the extent permitted) or after restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price of our common stock at such time and our ability to raise equity capital at a time and price we deem appropriate.

Sale of Restricted Shares

As of December 31, 2014, based on the number of shares of our common stock then outstanding, upon the closing of this offering and assuming (1) the conversion of our outstanding convertible preferred stock into common stock, (2) no exercise of the underwriters' option to purchase additional shares of common stock and (3) no exercise of outstanding options or warrants, we would have had outstanding an aggregate of approximately shares of common stock. Of these shares, all of the shares of common stock to be sold in this offering, and any shares sold upon exercise of the underwriters' option to purchase additional shares will be freely tradable in the public market without restriction or further registration under the Securities Act of 1933, as amended, or the Securities Act, unless the shares are held by any of our "affiliates" as such term is defined in Rule 144 of the Securities Act. All remaining shares of common stock held by existing stockholders immediately prior to the completion of this offering will be "restricted securities" as such term is defined in Rule 144. These restricted securities were issued and sold by us, or will be issued and sold by us, in private transactions and are eligible for public sale only if registered under the Securities Act or if they qualify for an exemption from registration under the Securities Act, including the exemptions provided by Rule 144 or Rule 701, which rules are summarized below.

As a result of the lock-up agreements referred to below and the provisions of Rule 144 and Rule 701 under the Securities Act, the shares of our common stock (excluding the shares sold in this offering) that will be available for sale in the public market are as follows:

Approximate Number of Shares	First Date Available for Sale into Public Market
	180 days after the date of this prospectus upon expiration of the lock-up agreements referred to below, subject in some cases to applicable volume limitations under Rule 144

Lock-up Agreements

In connection with this offering, we, our directors, our executive officers and stockholders holding approximately % of our shares of common stock outstanding as of December 31, 2014 (assuming conversion of all of our outstanding shares of convertible preferred stock), and substantially all of our option holders who are not also stockholders have agreed, subject to certain exceptions, with the underwriters not to dispose of or hedge any shares of our common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of the lock-up agreement continuing through the date 180 days after the date of this prospectus, except with the prior written consent of Goldman, Sachs & Co. and Cowen and

Company, LLC, together the representatives of the underwriters. The representatives of the underwriters have advised us that they have no current intent or arrangement to release any of the shares subject to the lock-up agreements prior to the expiration of the lock-up period.

Following the lock-up periods set forth in the agreements described above, and assuming that the representatives of the underwriters do not release any parties from these agreements, all of the shares of our common stock that are restricted securities or are held by our affiliates as of the date of this prospectus will be eligible for sale in the public market in compliance with Rule 144 under the Securities Act.

In addition, pursuant to each of our second amended and restated investors' rights agreement and second amended and restated stockholders' agreement, the parties thereto have agreed that, if requested in writing by the representatives of the underwriters of the initial public offering of our securities, they will not sell, make any short sale of, grant any option for the purchase of, or otherwise dispose of any shares of our stock during the same 180-day restricted period referred to above. We expect the representatives of the underwriters to invoke this written request prior to the completion of this offering and, accordingly, that the parties to these agreements will be subject to the related transaction restrictions.

Holders of approximately shares of common stock (including shares of our convertible preferred stock that will be converted into shares of our common stock upon completion of this offering), or % of our outstanding shares of common stock on an as converted basis, are, collectively subject to lock-up restrictions as parties to these agreements or lock-up agreements with the underwriters.

Rule 144

In general, under Rule 144, as currently in effect, once we have been subject to the public company reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, for at least 90 days, a person (or persons whose shares are required to be aggregated) who is not deemed to have been one of our "affiliates" for purposes of Rule 144 at any time during the three months preceding a sale, and who has beneficially owned restricted securities within the meaning of Rule 144 for at least six months, including the holding period of any prior owner other than one of our "affiliates," is entitled to sell those shares in the public market (subject to the lock-up agreement referred to above, if applicable) without complying with the manner of sale, volume limitations or notice provisions of Rule 144, but subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the sales proposed to be sold for at least one year, including the holding period of any prior owner other than "affiliates," then such person is entitled to sell such shares in the public market without complying with any of the requirements of Rule 144 (subject to the lock-up agreement referred to above, if applicable). In general, under Rule 144, as currently in effect, once we have been subject to the public company reporting requirements of the Exchange Act for at least 90 days, our "affiliates," as defined in Rule 144, who have beneficially owned the shares proposed to be sold for at least six months are entitled to sell in the public market, upon expiration of any applicable lock-up agreements and within any three-month period, a number of those shares of our common stock that does not exceed the greater of:

- 1% of the number of common shares then outstanding, which will equal approximately shares of common stock immediately after this offering (calculated on the basis of the number of shares of our common stock outstanding as of , the assumptions described above and assuming no exercise of the underwriter's option to purchase additional shares and no exercise of outstanding options or warrants); or

- the average weekly trading volume of our common stock on The NASDAQ Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Such sales under Rule 144 by our "affiliates" or persons selling shares on behalf of our "affiliates" are also subject to certain manner of sale provisions, notice requirements and to the availability of current public information about us. Notwithstanding the availability of Rule 144, the holders of substantially all of our restricted securities have entered into lock-up agreements as referenced above and their restricted securities will become eligible for sale (subject to the above limitations under Rule 144) upon the expiration of the restrictions set forth in those agreements.

Rule 701

In general, under Rule 701 as currently in effect, any of our employees, directors, officers, consultants or advisors who acquired common stock from us in connection with a written compensatory stock or option plan or other written agreement in compliance with Rule 701 under the Securities Act before the effective date of the registration statement of which this prospectus is a part (to the extent such common stock is not subject to a lock-up agreement) is entitled to rely on Rule 701 to resell such shares beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act in reliance on Rule 144, but without compliance with the holding period requirements contained in Rule 144. Accordingly, subject to any applicable lock-up agreements, beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act, under Rule 701 persons who are not our "affiliates," as defined in Rule 144, may resell those shares without complying with the minimum holding period or public information requirements of Rule 144, and persons who are our "affiliates" may resell those shares without compliance with Rule 144's minimum holding period requirements (subject to the terms of the lock-up agreement referred to below, if applicable).

Equity Incentive Plans

We intend to file with the SEC a registration statement under the Securities Act covering the shares of common stock that we may issue upon exercise of outstanding options reserved for issuance under the 2011 Stock Option Plan and the 2015 Plan. Such registration statement is expected to be filed and become effective as soon as practicable after the completion of this offering. Accordingly, shares registered under such registration statement will be available for sale in the open market following its effective date, subject to Rule 144 volume limitations and the lock-up agreements described above, if applicable.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of our common stock to Non-U.S. Holders, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended (the "Code"), Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed or subject to differing interpretations, possibly with retroactive effect, so as to result in U.S. federal income tax consequences different from those set forth below. We have not sought and will not seek any ruling from the Internal Revenue Service (the "IRS"), with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court will agree with such statements and conclusions.

This summary also does not address the tax considerations arising under the laws of any U.S. state or local or any non-U.S. jurisdiction, the Medicare tax on net investment income or any alternative minimum tax consequences. In addition, this discussion does not address tax considerations applicable to a Non-US Holder's particular circumstances or to a Non-US Holder that may be subject to special tax rules, including, without limitation:

- banks, insurance companies or other financial institutions;
- tax-exempt or government organizations;
- dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of our capital stock;
- certain former citizens or long-term residents of the United States;
- persons who hold our common stock as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction;
- persons who do not hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, for investment purposes);
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- real estate investment trusts or regulated investment companies;
- pension plans;
- S corporations, partnerships, or other entities or arrangements treated as partnerships for U.S. federal income tax purposes, or investors in any such entities);
- persons for whom our stock constitutes "qualified small business stock" within the meaning of Section 1202 of the Code;
- integral parts or controlled entities of foreign sovereigns;
- tax-qualified retirement plans;
- controlled foreign corporations;
- passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax; or
- persons that acquire our common stock as compensation for services.

In addition, if a partnership, including any entity or arrangement classified as a partnership for U.S. federal income tax purposes, holds our common stock, the tax treatment of a partner generally

will depend on the status of the partner the activities of the partnership, and certain determinations made at the partner level. Accordingly, partnerships that hold our common stock, and partners in such partnerships, should consult their tax advisors regarding the U.S. federal income tax consequences to them of the purchase, ownership, and disposition of our common stock.

You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock arising under the U.S. federal estate or gift tax rules or under the laws of any U.S. state or local or any non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

Definition of a Non-U.S. Holder

For purposes of this summary, a "Non-U.S. Holder" is any beneficial owner of our common stock that is not a "U.S. person," a partnership, or an entity disregarded from its owner, each for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more U.S. persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect to be treated as a U.S. person for U.S. federal income tax purposes.

Distributions

If we make distributions on our common stock, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce a Non-U.S. Holder's basis in our common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under "Gain on Sale or Other Disposition of Common Stock."

Subject to the discussion below on effectively connected income, any dividend paid to a Non-U.S. Holder generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, a Non-U.S. Holder must provide us with an IRS Form W-8BEN (generally including a U.S. taxpayer identification number), IRS Form W-8-BEN-E or another appropriate version of IRS Form W-8 (or a successor form), in each case, certifying qualification for the reduced rate. A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Dividends paid to a Non-U.S. Holder that are effectively connected with the Non-U.S. Holder's conduct of a U.S. trade or business within the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment maintained by the Non-U.S. Holder in the United States) generally are exempt from the withholding tax described above. In order to

obtain this exemption, the Non-U.S. Holder must provide the applicable withholding agent with an IRS Form W-8ECI or successor form or other applicable IRS Form W-8 certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits, subject to an applicable income tax treaty providing otherwise. In addition, if you are Non-U.S. Holder that is a corporation, dividends you receive that are effectively connected with your conduct of a U.S. trade or business (and, if an income tax treaty applies, are attributable to a permanent establishment maintained by the you in the United States) may also be subject to a branch profits tax at a rate of 30% (or such lower rate as may be specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items.

If you are eligible for a reduced rate of withholding tax pursuant to a tax treaty, you may be able to obtain a refund of any excess amounts currently withheld if you file an appropriate claim for refund with the IRS.

Gain on Sale or Other Disposition of Common Stock

Subject to the discussion below regarding backup withholding and FATCA, a Non-U.S. Holder generally will not be required to pay U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if an income tax treaty applies, the gain is attributable to a permanent establishment maintained by the Non-U.S. Holder in the U.S.), in which case the Non-U.S. Holder will be required to pay tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates, and for a Non-U.S. Holder that is a corporation, such Non-U.S. Holder may be subject to the branch profits tax at a 30% rate (or such lower rate as may be specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items;

- the Non-U.S. Holder is an individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met, in which case the Non-U.S. Holder will be required to pay a flat 30% tax on the gain derived from the sale, which tax may be offset by U.S. source capital losses (even though the Non-U.S. Holder is not considered a resident of the United States) (subject to applicable income tax or other treaties); or

- our common stock constitutes a U.S. real property interest by reason of our status as a "U.S. real property holding corporation" for U.S. federal income tax purposes, a USRPHC, at any time within the shorter of the five-year period preceding the disposition or the Non-U.S. Holder's holding period for our common stock. We believe we are not currently and do not anticipate becoming a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, gain arising from the sale or other taxable disposition by a Non-U.S. Holder of our common stock will not be subject to U.S. federal income tax as long as our common stock is regularly traded on an established securities market and such Non-U.S. Holder does not, actually or constructively, hold more than five percent of our common stock at any time during the applicable period that is specified in the Code. If the foregoing exception does not apply, then if we are or were to become a USRPHC a purchaser may be required to withhold 10% of the proceeds payable to a Non-U.S. Holder from a sale of our common stock and such Non-U.S. Holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code).

Backup Withholding and Information Reporting

Generally, we must file information returns annually to the IRS in connection with any dividends on our common stock paid to a Non-U.S. Holder, regardless of whether any tax was actually withheld. A similar report will be sent to the Non-U.S. Holder. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in the Non-U.S. Holder's country of residence.

Payments of dividends or of proceeds on the disposition of stock made to a Non-U.S. Holder may be subject to additional information reporting and backup withholding at a current rate of 28% unless such Non-U.S. Holder establishes an exemption, for example by properly certifying its non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN-E, IRS Form W-8ECI, or another appropriate version of IRS Form W-8 (or a successor form). Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that a holder is a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Account Tax Compliance Act ("FATCA")

The Foreign Account Tax Compliance Act ("FATCA") may impose withholding tax on certain types of payments made to foreign financial institutions and certain other non-U.S. entities. The legislation imposes a 30% withholding tax on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a "foreign financial institution" or to certain "non-financial foreign entities" (each as defined in the Code), unless (i) the foreign financial institution undertakes certain diligence and reporting obligations, (ii) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (iii) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (i) above, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. If the country in which a payee is resident has entered into an "intergovernmental agreement" with the United States regarding FATCA, that agreement may permit the payee to report to that country rather than to the U.S. Department of the Treasury. Under final regulations and published guidance, the obligation to withhold from payments made to a foreign financial institution or a foreign non-financial entity under FATCA with respect to dividends on our common stock began on July 1, 2014, but with respect to the gross proceeds of a sale or other disposition of our common stock will not begin until January 1, 2017. Prospective investors should consult their tax advisors regarding FATCA.

Federal Estate Tax

Common stock owned (or treated as owned) by an individual who is not a citizen or a resident of the United States (as defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes unless an applicable estate or other tax treaty provides otherwise, and therefore may be subject to U.S. federal estate tax.

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed change in applicable laws.

UNDERWRITING

The company and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman, Sachs & Co. and Cowen and Company, LLC are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman, Sachs & Co.	
Cowen and Company, LLC	
JMP Securities LLC	
Wedbush Securities Inc.	
Total	

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional shares from the Company to cover sales by the underwriters of a greater number of shares than the total number set forth in the table above. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by the Company. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

Paid by the Company

	No Exercise	Full Exercise
Per Share	$	$
Total	$	$

Shares sold by the underwriters to the public will initially be offered at the initial public offering, the midpoint of the estimated price range set forth on the cover page of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the initial public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The Company and its officers, directors, and holders of substantially all of the Company's common stock have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of the representatives. This agreement does not apply to any existing employee benefit plans. See "Shares Available for Future Sale" for a discussion of certain transfer restrictions.

Prior to the offering, there has been no public market for the shares. The initial public offering price has been negotiated among the Company and the representatives. Among the factors to be

considered in determining the initial public offering price of the shares, in addition to prevailing market conditions, will be the Company's historical performance, estimates of the business potential and earnings prospects of the Company, an assessment of the Company's management and the consideration of the above factors in relation to market valuation of companies in related businesses.

We plan to submit an application to quote our common stock on The NASDAQ Global Market under the symbol "BPMC."

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the Company's stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on The NASDAQ Global Market, in the over-the-counter market or otherwise.

The underwriters do not expect sales to discretionary accounts to exceed five percent of the total number of shares offered.

The Company estimates that its share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately $.

The Company has agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market

making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the issuer and to persons and entities with relationships with the issuer, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively traded securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the issuer (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the issuer. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

European Economic Area

In relation to each Member State of the European Economic Area that has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

- to any legal entity that is a qualified investor as defined in the Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of shares to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe for the shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive) and includes any relevant implementing measure in each Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that:

- it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer; and
- it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

France

Neither this prospectus nor any other offering material relating to the shares described in this prospectus has been submitted to the clearance procedures of the Autorité des Marchés Financiers or of the competent authority of another member state of the European Economic Area and notified to the Autorité des Marchés Financiers. The shares have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France. Neither this prospectus nor any other offering material relating to the shares has been or will be:

- released, issued, distributed or caused to be released, issued or distributed to the public in France; or
- used in connection with any offer for subscription or sale of the shares to the public in France.

Such offers, sales and distributions will be made in France only:

- to qualified investors (investisseurs qualifiés) and/or to a restricted circle of investors (cercle restreint d'investisseurs), in each case investing for their own account, all as defined in, and in accordance with articles L.411-2, D.411-1, D.411-2, D.734-1, D.744-1, D.754-1 and D.764-1 of the French Code monétaire et financier;
- to investment services providers authorized to engage in portfolio management on behalf of third parties; or
- in a transaction that, in accordance with article L.411-2-II-1°-or-2°-or 3° of the French Code monétaire et financier and article 211-2 of the General Regulations (Règlement Général) of the Autorité des Marchés Financiers, does not constitute a public offer (appel public à l'épargne).

The shares may be resold directly or indirectly, only in compliance with articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French Code monétaire et financier.

Australia

No prospectus or other disclosure document (as defined in the Corporations Act 2001 (Cth) of Australia ("Corporations Act")) in relation to the common stock has been or will be lodged with the Australian Securities & Investments Commission ("ASIC"). This document has not been lodged with ASIC and is only directed to certain categories of exempt persons. Accordingly, if you receive this document in Australia:

- you confirm and warrant that you are either:
    - a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act;

- a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to us which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;
- a person associated with the company under section 708(12) of the Corporations Act; or
- a "professional investor" within the meaning of section 708(11)(a) or (b) of the Corporations Act, and to the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act any offer made to you under this document is void and incapable of acceptance; and

- you warrant and agree that you will not offer any of the common stock for resale in Australia within 12 months of that common stock being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

Hong Kong

The shares may not be offered or sold by means of any document other than (i) in circumstances that do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), (ii) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances that do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares that are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person that is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has

acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Israel

In the State of Israel this prospectus shall not be regarded as an offer to the public to purchase shares of common stock under the Israeli Securities Law, 5728-1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728-1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions (the "Addressed Investors"); or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728-1968, subject to certain conditions (the "Qualified Investors"). The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. The company has not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728-1968. We have not and will not distribute this prospectus or make, distribute or direct an offer to subscribe for our common stock to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law, 5728-1968. In particular, we may request, as a condition to be offered common stock, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728-1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728-1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728-1968 and the regulations promulgated thereunder in connection with the offer to be issued common stock; (iv) that the shares of common stock that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728-1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728-1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor's name, address and passport number or Israeli identification number

LEGAL MATTERS

The validity of the issuance of our common stock offered in this prospectus will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Certain legal matters in connection with this offering will be passed upon for the underwriters by Latham & Watkins LLP.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements at December 31, 2013 and December 31, 2014 and for each of the two years in the period ended December 31, 2014, as set forth in their report, which is included in this prospectus and elsewhere in the registration statement. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1, including exhibits and schedules, under the Securities Act that registers the shares of our common stock to be sold in this offering. This prospectus does not contain all the information contained in the registration statement and the exhibits and schedules filed as part of the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and the exhibits and schedules filed as part of the registration statement. Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, we refer you to the copies of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit.

Upon the consummation of this offering, we will file annual, quarterly and current reports, proxy statements and other information with the SEC under the Exchange Act. You can read our SEC filings, including the registration statement, at the SEC's website at www.sec.gov.

You may read and copy this information at the SEC's Public Reference Room at 100 F Street, N.E., Washington D.C. 20549, at prescribed rates. You may obtain information regarding the operation of the public reference room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

Our website address is www.blueprintmedicines.com. The information contained in, and that can be accessed through, our website is not incorporated into and is not part of this prospectus.

Blueprint Medicines Corporation
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of
Blueprint Medicines Corporation

We have audited the accompanying balance sheets of Blueprint Medicines Corporation (the "Company") as of December 31, 2013 and 2014, and the related statements of operations, convertible preferred stock and stockholders' (deficit) equity, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Blueprint Medicines Corporation at December 31, 2013 and 2014, and the results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Boston, Massachusetts
February 19, 2015, except for Note 12B,
as to which the date is March 23, 2015

Blueprint Medicines Corporation

Balance Sheets

(in thousands, except share and per share data)

	December 31, 2013	December 31, 2014	Pro forma December 31, 2014 (unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$ 1,987	$ 47,240	$ 47,240
Restricted cash	—	119	119
Prepaid expenses and other current assets	461	915	915
Total current assets	2,448	48,274	48,274
Property and equipment, net	1,404	1,482	1,482
Other assets	94	99	99
Restricted cash	189	70	70
Total assets	$ 4,135	$ 49,925	$ 49,925
Liabilities, convertible preferred stock and stockholders' (deficit) equity			
Current liabilities:			
Accounts payable	1,414	814	814
Accrued expenses	866	3,810	3,810
Deferred rent	141	138	138
Restricted stock liability	24	298	298
Current portion of term loan payable	708	1,704	1,704
Total current liabilities	3,153	6,764	6,764
Deferred rent, net of current portion	137	—	—
Restricted stock liability, net of current portion	67	29	29
Warrant liability	119	365	—
Term loan payable, net of current portion	2,155	7,338	7,338
Commitments (Note 10)			
Series A convertible preferred stock, $0.001 par value: 40,150,000 shares authorized; 40,000,000, 40,000,000 and no shares issued and outstanding at December 31, 2013, December 31, 2014 and December 31, 2014 pro forma, respectively (liquidation preference of $48,238 at December 31, 2014)	39,958	39,958	—
Series B convertible preferred stock, $0.001 par value: no shares and 20,999,996 shares authorized at December 31, 2013 and 2014, respectively; no shares, 20,916,663 and no shares issued and outstanding at December 31, 2013, December 31, 2014 and December 31, 2014 pro forma, respectively (liquidation preference of $27,075 at December 31, 2014)	—	24,985	—
Series C convertible preferred stock, $0.001 par value: no shares and 24,154,589 shares authorized at December 31, 2013 and 2014, respectively; no shares, 24,154,589 and no shares issued and outstanding at December 31, 2013, December 31, 2014 and December 31, 2014 pro forma, respectively (liquidation preference of $50,592 at December 31, 2014)	—	49,868	—
Stockholders' (deficit) equity:			
Common stock, $0.001 par value; 110,000,000 shares authorized; 11,483,110 and 12,202,752 shares issued at December 31, 2013 and 2014, respectively, and 6,717,289 and 8,947,220 shares outstanding at December 31, 2013 and 2014, respectively, and 97,274,004 and 94,018,472 shares issued and outstanding at December 31, 2014 pro forma, respectively	7	9	94
Additional paid-in capital	460	2,815	117,906
Accumulated deficit	(41,921)	(82,206)	(82,206)
Total stockholders' (deficit) equity	(41,454)	(79,382)	35,794
Total liabilities, convertible preferred stock, and stockholders' (deficit) equity	$ 4,135	$ 49,925	$ 49,925

Blueprint Medicines Corporation

Statements of Operations

(in thousands, except per share data)

	Year Ended December 31,	
	2013	**2014**
Operating expenses:		
Research and development	$ 15,928	$ 31,844
General and administrative	5,072	7,890
Total operating expenses	21,000	39,734
Other income (expense):		
Other income (expense), net	226	(98)
Interest and other expense	(138)	(453)
Total other income (expense)	88	(551)
Net loss	$ (20,912)	$ (40,285)
Convertible preferred stock dividends	(2,870)	(5,765)
Net loss applicable to common stockholders	$ (23,782)	$ (46,050)
Net loss per share applicable to common stockholders — basic and diluted	$ (4.26)	$ (5.89)
Weighted-average number of common shares used in net loss per share applicable to common stockholders — basic and diluted	5,582	7,815
Pro forma net loss per share applicable to common stockholders — basic and diluted (unaudited)		$ (0.56)
Pro forma weighted average number of common shares used in net loss per share applicable to common stockholders — basic and diluted (unaudited)		71,962

Blueprint Medicines Corporation

Statements of Convertible Preferred Stock and Stockholders' (Deficit) Equity

(in thousands, except share and per share data)

	Series A Convertible Preferred Stock		Series B Convertible Preferred Stock		Series C Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Stockholders' (Deficit) Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at December 31, 2012	25,000,000	$ 24,970	—	—	—	—	3,959,945	$ 4	$ 89	$ (21,009)	$ (20,916)
Issuance of Series A convertible preferred stock at $1.00 per share, net of issuance costs of $12	15,000,000	14,988	—	—	—	—	—	—	—	—	—
Issuance of common stock under stock plan	—	—	—	—	—	—	2,757,344	3	20	—	23
Stock-based compensation expense	—	—	—	—	—	—	—	—	351	—	351
Net loss	—	—	—	—	—	—	—	—	—	(20,912)	(20,912)
Balance at December 31, 2013	40,000,000	$ 39,958	—	$ —	—	$ —	6,717,289	$ 7	$ 460	$ (41,921)	$ (41,454)
Issuance of Series B convertible preferred stock at $1.20 per share, net of issuance costs of $115	—	—	20,916,663	24,985	—	—	—	—	—	—	—
Issuance of Series C convertible preferred stock at $2.07 per share, net of issuance costs of $131	—	—	—	—	24,154,589	49,868	—	—	—	—	—
Issuance of common stock under stock plan	—	—	—	—	—	—	2,229,931	2	29	—	31
Stock-based compensation expense	—	—	—	—	—	—	—	—	2,326	—	2,326
Net loss	—	—	—	—	—	—	—	—	—	(40,285)	(40,285)
Balance at December 31, 2014	40,000,000	$ 39,958	20,916,663	$ 24,985	24,154,589	$ 49,868	8,947,220	$ 9	$ 2,815	$ (82,206)	$ (79,382)
Conversion of preferred stock into common stock (unaudited)	(40,000,000)	(39,958)	(20,916,663)	(24,985)	(24,154,589)	(49,868)	85,071,252	85	114,726	—	114,811
Reclassification of warrant to purchase preferred stock to stockholders' equity (unaudited)	—	—	—	—	—	—	—	—	365	—	365
Pro forma balance at December 31, 2014 (unaudited)	—	$ —	—	$ —	—	$ —	94,018,472	$ 94	$ 117,906	$ (82,206)	$ 35,794

Blueprint Medicines Corporation

Statements of Cash Flows

(in thousands)

	Year Ended December 31,	
	2013	**2014**
Operating activities		
Net loss	$ (20,912)	$ (40,285)
Adjustments to reconcile net loss to net cash used in in operating activities:		
Depreciation and amortization	501	622
Noncash interest expense	26	85
Change in fair value of warrant liability	(4)	100
Stock-based compensation	351	2,326
Changes in assets and liabilities:		
Prepaid expenses and other current assets	16	(469)
Other assets	20	—
Accounts payable	541	(512)
Accrued expenses	550	2,873
Deferred rent	(114)	(140)
Net cash used in operating activities	(19,025)	(35,400)
Investing activities		
Purchases of property and equipment	(257)	(700)
Net cash used in investing activities	(257)	(700)
Financing activities		
Proceeds from term loan	3,000	7,000
Principal payments on loan payable	—	(750)
Proceeds from issuance of Series A convertible preferred stock, net of issuance costs	14,987	—
Proceeds from issuance of Series B convertible preferred stock, net of issuance costs	—	24,985
Proceeds from issuance of Series C convertible preferred stock, net of issuance costs	—	49,868
Debt issuance costs	(48)	(18)
Proceeds from issuance of common stock	53	268
Net cash provided by financing activities	17,992	81,353
Net (decrease) increase in cash and cash equivalents	(1,290)	45,253
Cash and cash equivalents at beginning of period	3,277	1,987
Cash and cash equivalents at end of period	$ 1,987	$ 47,240
Supplemental cash flow information		
Cash paid for interest	$ 53	$ 215
Supplemental noncash financing activity		
Issuance of warrants in connection with term loan	$ 119	$ 145

Blueprint Medicines Corporation

Notes to Financial Statements

1. Nature of Business

Blueprint Medicines Corporation (the Company), a Delaware corporation formed on October 14, 2008, is a biopharmaceutical company focused on improving the lives of patients with genomically defined diseases driven by abnormal kinase activation. The Company's approach is to systematically and reproducibly identify kinases that are drivers of genomically defined diseases and to craft drug candidates with therapeutic windows that provide significant and durable clinical response to patients.

The Company is devoting substantially all of its efforts to research and development, initial market development, and raising capital. The Company has an accumulated deficit as of December 31, 2014 of approximately $82.2 million and will require substantial additional capital for research and product development. The Company is subject to a number of risks similar to those of other early stage companies, including dependence on key individuals; the need to develop commercially viable drugs; competition from other companies, many of which are larger and better capitalized; and the need to obtain adequate additional financing to fund the development of its drugs. If the Company is unable to raise capital when needed or on attractive terms, it would be forced to delay, reduce, eliminate or out-license certain of its research and development programs or future commercialization efforts.

At December 31, 2014, the Company believes its cash and cash equivalents, totaling approximately $47.2 million, are sufficient to fund operations through at least January 1, 2016.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements have been prepared in accordance with United States (U.S.) generally accepted accounting principles ("U.S. GAAP") and include all adjustments necessary for the fair presentation of the Company's financial position for the periods presented.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires the Company's management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates. Management considers many factors in selecting appropriate financial accounting policies and in developing the estimates and assumptions that are used in the preparation of the financial statements. Management must apply significant judgment in this process. Management's estimation process often may yield a range of potentially reasonable estimates and management must select an amount that falls within that range of reasonable estimates. Estimates are used in the following areas, among others: stock-based compensation expense, including estimating the fair value of the Company's common stock (the "Common Stock"); the valuation of liability-classified warrants; accrued expenses; and income taxes.

Unaudited Pro Forma Financial Information

On February 10, 2015, the Company's board of directors authorized the management of the Company to submit on a confidential basis a registration statement with the Securities and Exchange Commission ("SEC") for the Company to sell shares of its Common Stock to the public.

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Upon the closing of a qualified initial public offering, all of the Company's outstanding convertible preferred stock will automatically convert into Common Stock. The unaudited pro forma consolidated balance sheet and statement of convertible preferred stock and stockholders' (deficit) equity as of December 31, 2014 assumes the conversion of all outstanding convertible preferred stock into shares of Common Stock and the reclassification of the warrant liability to additional paid-in capital upon the completion of this proposed offering.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. For the years ended December 31, 2013 and 2014, comprehensive loss was equal to net loss.

Cash Equivalents

Cash equivalents are highly liquid investments that are readily convertible into cash with original maturities of three months or less when purchased. These assets include an investment in a money market fund that invests in U.S. Treasury obligations. Cash equivalents consist of the following at December 31, 2013 and 2014 (in thousands):

	2013	2014
Money market fund	$ 1,987	$ 47,240

Fair Value of Financial Instruments

The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows:

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3 inputs are unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

Financial instruments measured at fair value as of December 31, 2013, are classified below based on the fair value hierarchy described above:

Description	December 31, 2013	Active Markets (Level 1)	Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Money market funds, included in cash equivalents	$ 1,987	$ 1,987	$ —	$ —
Preferred stock warrants	(119)	—	—	(119)

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Financial instruments measured at fair value as of December 31, 2014, are classified below based on the fair value hierarchy described above:

Description	December 31, 2014	Active Markets (Level 1)	Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Money market funds, included in cash equivalents	$ 47,240	$ 47,240	$ —	$ —
Preferred stock warrants	(365)	—	—	(365)

At December 31, 2013 and 2014, all of the Company's cash equivalents comprise of a money market account, the fair value of which is valued using Level 1 inputs. The fair value of the Company's term loan payable is determined using current applicable rates for similar instruments as of the balance sheet date. The carrying value of the Company's term loan payable approximates fair value because the Company's interest rate yield approximates current market rates. The Company's term loan payable is a Level 3 liability within the fair value hierarchy. The fair value of the preferred stock warrant liability was determined based on Level 3 inputs and utilizing the Black-Scholes option pricing model (see Note 6).

Research and Development Costs

Expenditures relating to research and development are expensed in the period incurred. Research and development expenses consist of both internal and external costs associated with the development of the Company's selective cancer therapies and building of its platform.

In certain circumstances, the Company is required to make nonrefundable advance payments to vendors for goods or services that will be received in the future for use in research and development activities. In such circumstances, the nonrefundable advance payments are deferred and capitalized, even when there is no alternative future use for the research and development, until related goods or services are provided. As of December 31, 2013 and 2014, the Company had prepaid expenses of approximately $0.1 million in each year related to nonrefundable advance payments to vendors.

Property and Equipment, Net

Property and equipment consists of lab equipment, furniture and fixtures, computer equipment, software, and leasehold improvements, all of which is stated at cost. Expenditures for maintenance and repairs are recorded to expense as incurred, whereas major betterments are capitalized as additions to property and equipment. Depreciation is recognized over the estimated useful lives of the assets using the straight-line method.

Impairment of Long-Lived Assets

The Company continually evaluates whether events or circumstances have occurred that indicate that the estimated remaining useful life of its long-lived assets may warrant revision or that the carrying value of these assets may be impaired. The Company has not recognized any impairment charges through December 31, 2014.

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Warrants

The Company accounts for warrant instruments that either conditionally or unconditionally obligate the issuer to transfer assets and liabilities regardless of the timing of the redemption feature or price, even though the underlying shares may be classified as permanent or temporary equity. These warrants are subject to revaluation at each balance sheet date, and any changes in fair value are recorded as a component of other income (expense), until the earlier of their exercise or expiration or the completion of a liquidation event, including the completion of an initial public offering, at which time the warrant liability will be reclassified to stockholders' equity if the criteria for recording the warrant as an equity instrument are met. The warrant liability totaled $0.1 million and $0.4 million at December 31, 2013 and 2014, respectively (see Note 6).

Stock-Based Compensation Expense

The Company expenses the fair value of employee stock awards net of estimated forfeitures, adjusted to reflect actual forfeitures on a straight-line basis over the requisite service period, which generally is the vesting period. Compensation cost for restricted stock awards issued to employees is measured using the grant date intrinsic value of the award, net of estimated forfeitures, adjusted to reflect actual forfeitures. The Company estimates the fair value of the options granted to employees at the date of grant using the Black-Scholes option-pricing model that requires management to apply judgment and make estimates, including:

- expected volatility, which is calculated based on reported volatility data for a representative group of publicly traded companies for which historical information is available. Since the Company is privately held as of the date of these financial statements, it does not have relevant historical data to support its expected volatility. As such, the Company has used an average of expected volatility based on the volatilities of a representative group of publicly traded biopharmaceutical companies. For purposes of identifying representative companies, the Company considered characteristics such as number of drug candidates in early stages of drug development, area of therapeutic focus, length of trading history, similar vesting provisions and a similar percentage of stock options that were in-the-money. The expected volatility was determined using an average of the historical volatilities of the representative group of companies for a period equal to the expected term of the option grant. The Company intends to consistently apply this process using the same representative companies until a sufficient amount of historical information regarding the volatility of the Company's own share price becomes available or until circumstances change, such that the identified entities are no longer representative companies. In the latter case, more suitable, similar entities whose share prices are publicly available would be utilized in the calculation;

- risk-free interest rate, which is based on the U.S. Treasury yield curve in effect at the time of grant commensurate with the expected life assumption;

- expected term, which the Company calculates using the simplified method, as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment,* as the Company has insufficient historical information regarding stock options to provide a basis for an estimate;

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

- fair value of the underlying common shares, which is determined using the option-pricing method (OPM) or a hybrid of the probability-weighted expected return method, or PWERM, and the OPM, and was approved by our board of directors; and

- dividend yield which is zero based on the fact that the Company never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future.

The amount of stock-based compensation expense recognized during a period is based on the fair value of the portion of the awards that are ultimately expected to vest. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The term "forfeitures" is distinct from "cancellations" or "expirations" and represents only the unvested portion of the surrendered option. The Company evaluates its forfeiture rate at each reporting period. Ultimately, the actual expense recognized over the vesting period will be for only those options that vest.

Stock-based awards issued to non-employees, including directors for non-board-related services, are accounted for based on the fair value of such services received or of the intrinsic value of equity instruments issued, whichever is more reliably measured. These stock-based awards are revalued at each vesting date and period-end. Stock-based awards subject to service-based vesting conditions are expensed on a straight-line basis over the vesting period.

Income Taxes

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the Company's financial statements or tax returns. Under this method, deferred tax assets and liabilities are determined based on differences between the financial statement carrying amounts and the tax bases of the assets and liabilities using the enacted tax rates in effect in the years in which the differences are expected to reverse. A valuation allowance against deferred tax assets is recorded if, based on the weight of the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. The Company accounts for uncertain tax positions using a more-likely-than-not threshold for recognizing and resolving uncertain tax positions. The evaluation of uncertain tax positions is based on factors including, but not limited to, changes in the law, the measurement of tax positions taken or expected to be taken in tax returns, the effective settlement of matters subject to audit, new audit activity, and changes in facts or circumstances related to a tax position.

Concentrations of Credit Risk and Off-Balance-Sheet Risk

The Company has no significant off-balance-sheet risk such as foreign exchange contracts, option contracts, or other foreign hedging arrangements. Financial instruments that potentially expose the Company to concentrations of credit risk primarily consist of cash and cash equivalents. The Company maintains its cash and cash equivalents in a custodian account at a high quality financial institution, and consequently, the Company believes that such funds are subject to minimal credit risk.

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Segment and Geographic Information

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker, or decision making group, in making decisions on how to allocate resources and assess performance. The Company's chief operating decision maker is the chief executive officer. The Company and the chief operating decision maker view the Company's operations and manage its business as one operating segment. The Company operates only in the United States.

Net Loss per Share Applicable to Common Stockholders

Basic net loss per share applicable to common stockholders is calculated by dividing net loss applicable to common stockholders by the weighted average shares outstanding during the period, without consideration for common stock equivalents. Net loss applicable to common stockholders is calculated by adjusting the net loss of the Company for cumulative preferred stock dividends. Diluted net loss per share applicable to common stockholders is calculated by adjusting weighted average shares outstanding for the dilutive effect of common stock equivalents outstanding for the period. For purposes of the dilutive net loss per share applicable to common stockholders calculation, convertible preferred stock, warrants, stock options, and unvested restricted stock are considered to be common stock equivalents but are excluded from the calculation of diluted net loss per share applicable to common stockholders, as their effect would be anti-dilutive; therefore, basic and diluted net loss per share applicable to common stockholders were the same for all periods presented. The following common stock equivalents were excluded from the calculation of diluted net loss per share applicable to common stockholders for the periods indicated because including them would have had an anti-dilutive effect.

	Years ended December 31,	
	2013	2014
Convertible preferred stock	40,000,000	85,071,252
Warrants	150,000	233,333
Stock options	2,118,900	8,260,767
Unvested restricted stock	4,602,111	2,339,042
Total	46,871,011	95,904,394

Unaudited pro forma net loss per share applicable to common stockholders is computed using the weighted-average number of common shares outstanding after giving effect to the conversion of all convertible preferred stock into shares of the Common Stock as if such conversion had occurred at the beginning of the period presented, or the date of original issuance, if later. Accordingly, the pro forma basic and diluted net loss per share applicable to stockholders does not include the effects of the cumulative preferred stock dividends. Additionally, the changes in the fair value of the warrants to purchase convertible preferred stock have been excluded from the determination of unaudited pro forma net loss as those re-measurements would not be required when the warrants to purchase convertible preferred stock become warrants to purchase Common Stock. Shares to be sold in the offering are excluded from the unaudited pro forma basic and diluted loss per share applicable to common stockholders calculations.

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Unaudited pro forma net loss per share applicable to common stockholders is computed as follows (in thousands except for share and per share information):

	Year Ended December 31, 2014
Net loss	$ (40,285)
Add back: remeasurement of warrant to purchase convertible preferred stock	100
Net loss per share applicable to common stockholders — basic and diluted	$ (40,185)
Pro forma weighted average common shares outstanding:	
Weighted average common shares outstanding	7,815,307
Adjustment for assumed conversion of convertible preferred stock	64,146,383
Pro forma weighted average common shares outstanding — basic and diluted	71,961,690
Pro forma basic and diluted loss per share applicable to common stockholders	$ (0.56)

Recent Accounting Pronouncements

In 2014, the FASB issued new guidance on management's responsibility in evaluating whether or not there is substantial doubt about a company's ability to continue as a going concern within one year from the date the financial statements are issued each reporting period. This new accounting guidance is effective for annual periods ending after December 15, 2016. Early adoption is permitted. The Company is in process of evaluating the new guidance and determining the expected effect on its financial statements.

In June 2014, the FASB issued Accounting Standards Update ("ASU") 2014-10, Development Stage Entities (Topic 915) ("ASU 2014-10"), which removes the definition of a development stage entity from the ASC, thereby removing the financial reporting distinction between development stage entities and other reporting entities. Accordingly, ASU 2014-10 eliminates the requirements for development stage entities to (1) present inception-to-date information in the statements of operations, cash flows and shareholder equity, (2) label financial statements as those of a development stage entity, (3) disclose a description of the development stage activities in which the entity is engaged and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage. ASU 2014-10 is effective for public business entities for annual periods beginning after December 15, 2014, and interim reporting periods beginning after December 15, 2015, with early adoption permitted. The Company early adopted the provisions of ASU 2014-10 in these financial statements.

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

3. Restricted Cash

At December 31, 2013 and 2014, $0.2 million of the Company's cash is restricted by a bank. As of December 31, 2014, $0.1 million of the restricted cash is included in current assets as collateral for a stand-by letter of credit issued by the Company to its landlord in connection with the lease of the Company's corporate headquarters. As of December 31, 2014, $0.1 million of the restricted cash is included in long-term assets related to the Company's corporate credit card agreement.

4. Property and Equipment, Net

Property and equipment and related accumulated depreciation are as follows (in thousands):

	Estimated Useful Life (Years)	December 31	
		2013	2014
Lab equipment	5	$ 1,719	$ 2,000
Furniture and fixtures	4	285	326
Computer equipment	3	275	369
Leasehold improvements	Term of lease	—	191
Software	3	49	142
		2,328	3,028
Less: accumulated depreciation and amortization		(924)	(1,546)
Total property and equipment, net		$ 1,404	$ 1,482

Depreciation expense for the years ended December 31, 2013 and 2014 was $0.5 million and $0.6 million, respectively.

5. Accrued Expenses

Accrued expenses consist of the following (in thousands):

	December 31	
	2013	2014
Employee compensation	$ 278	$ 623
External research and pre-clinical development	91	2,034
Severance	150	330
Consulting	108	216
License fees	100	—
Interest	28	150
Other	111	457
	$ 866	$ 3,810

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

6. Term Loan

In May 2013, the Company entered into a loan and security agreement (Loan and Security Agreement) with Silicon Valley Bank. Under the terms of the agreement, the Company may borrow up to $5.0 million. Loan advances accrue interest at a fixed rate of 2% above the Prime Rate. In June 2013, the Company drew the first loan advance of $1.0 million under the Loan and Security Agreement and was required to make interest-only payments until April 1, 2014, and consecutive monthly payments of principal, plus accrued interest, over the remaining term through March 2017. In September 2013, the Company drew the second loan advance of $2.0 million under the Loan and Security Agreement and was required to make interest-only payments until April 1, 2014, and consecutive monthly payments of principal, plus accrued interest, over the remaining term through March 2017. In June 2014, the Company drew the remaining $2.0 million advance under the Loan and Security Agreement and is required to make interest-only payments until January 1, 2015, and consecutive monthly payments of principal, plus accrued interest, over the remaining term through December 2017. In November 2014, the Company amended the Loan and Security Agreement to allow the Company to borrow an additional $5.0 million. The Company accounted for the amendment as a modification to the existing Loan and Security Agreement. The Company immediately drew the additional $5.0 million and is required to make interest-only payments until December 1, 2015, and consecutive monthly payments of principal, plus accrued interest, over the remaining term through November 2018. The Company is required to pay a fee of 4.00% of the total loan advances at the end of the term of the loan. The fee is being accreted to interest expense over the term of the loan. In the event of prepayment, the Company is obligated to pay 1% to 2% of the amount of the outstanding principal depending upon the timing of the prepayment.

The term loan is collateralized by a blanket lien on all corporate assets, excluding intellectual property, and by a negative pledge of the Company's intellectual property. The term loan contains customary default provisions that include material adverse events, as defined therein. The Company has determined that the risk of subjective acceleration under the material adverse events clause is remote and therefore has classified the outstanding principal in current and long-term liabilities based on scheduled principal payments.

The Company assessed all terms and features of the term loan in order to identify any potential embedded features that would require bifurcation. As part of this analysis, the Company assessed the economic characteristics and risks of the term loan, including put and call features. The Company determined that all features of the term loan are clearly and closely associated with a debt host and do not require bifurcation as a derivative liability, or the fair value of the feature is immaterial to the Company's financial statements. The Company will continue to reassess the features on a quarterly basis to determine if they require separate accounting.

Scheduled monthly principal payments on the term loan, as of December 31, 2014, are as follows (in thousands):

2015	$	1,806
2016		3,333
2017		2,583
2018		1,528
Total	$	9,250

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

6. Term Loan (Continued)

In connection with the Loan and Security Agreement, the Company issued a warrant to Silicon Valley Bank to purchase 150,000 shares of Series A Convertible Preferred Stock at an exercise price of $1.00 per share. In connection with the amendment to the Loan and Security Agreement, the Company issued a warrant to Silicon Valley Bank to purchase 83,333 shares of Series B Convertible Preferred Stock at an exercise price of $1.20 per share. Both warrants were exercisable immediately and have a ten-year life. No portion of the warrants have been exercised as of December 31, 2014.

The warrants are classified as a liability and are re-measured to the-then current fair value at each balance sheet date. Re-measurement gains or losses are recorded in other income (expense) in the statements of operations. The following table sets forth a summary of changes in the fair value of the warrants which represents a recurring measurement that is classified within Level 3 of the fair value hierarchy wherein fair value is estimated using significant unobservable inputs (in thousands):

	Year Ended	
	December 31, 2013	December 31, 2014
Beginning balance	$ —	$ 119
Issuance of warrant at fair value	123	146
Change in fair value	(4)	100
Ending balance	$ 119	$ 365

The Company valued the warrants for the purchase of Series A and B Convertible Preferred Stock ("Series A and Series B Warrants") at issuance and at the balance sheet dates using the Black-Scholes option pricing model. The significant assumptions used in estimating the fair value of the warrants include the volatility of the stock underlying the warrant, risk-free interest rate, estimated fair value of the preferred stock underlying the warrant, and the estimated term of the warrant. The fair value of the preferred stock underlying the warrants was estimated using the implied value from the Company's Common Stock valuations on those dates. The Company used the following weighted-average assumptions in its Black-Scholes option pricing model:

	Series A Warrant			Series B Warrant	
	Issuance	December 31, 2013	December 31, 2014	Issuance	December 31, 2014
Fair value of underlying instrument	$ 1.00	$ 1.00	$ 1.69	$ 1.97	$ 1.97
Expected volatility	80.70%	89.00%	89.98%	87.18%	87.38%
Expected term (in years)	10.0	9.5	8.4	10.0	9.8
Risk-free interest rate	2.58%	3.05%	2.15%	2.36%	2.24%
Expected dividend yield	—%	—%	—%	—%	—%

The Company recorded a debt discount upon issuance of the warrants, which is being accreted as interest expense over the remaining term of the loan. The Company also recorded a

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

6. Term Loan (Continued)

warrant liability that is classified as a long-term liability in the accompanying balance sheets. The Company recorded interest expense related to the Series A and Series B Warrants of less than $0.1 million in each of the years ended December 31, 2013 and 2014.

7. Stockholders' (Deficit) Equity

Series A Convertible Preferred Stock

In January and September 2013, the Company issued 10,000,000 and 5,000,000 shares, respectively, of Series A Convertible Preferred Stock at a price of $1.00 per share, resulting in net proceeds of $15.0 million.

Series B Convertible Preferred Stock Financing

In January 2014, the Company issued a total of 20,916,663 shares of Series B Convertible Preferred Stock at $1.20 per share for net proceeds of $25.0 million.

Series C Convertible Preferred Stock Financing

In November 2014, the Company issued a total of 24,154,589 shares of Series C Convertible Preferred Stock at $2.07 per share for net proceeds of $49.9 million.

Convertible Preferred Stock

The rights, preferences, and privileges of the Preferred Stock are listed below:

Conversion

Shares of Preferred Stock are convertible without payment of any additional consideration into such number of fully paid and non-assessable shares of Common Stock as determined by dividing the original issuance price by the conversion price at the time in effect. The conversion price is the original price, or $1.00 per share for Series A, $1.20 per share for Series B and $2.07 per share for Series C, subject to adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock.

Conversion is at the option of the Preferred Stockholders, although conversion is automatic upon the earlier of the consummation of an initial public offering resulting in gross proceeds to the Company of at least $40 million and at a price of at least $2.277 per share of Common Stock or the vote or written consent of the majority of outstanding shares of Series A, B and C Convertible Preferred Stock.

Dividends

Holders of the Preferred Stock are entitled to receive, before any cash is paid out or set aside for any Common Stock, dividends at the annual rate of 8% of the original purchase price per share, subject to adjustment for stock splits; stock dividends; or, in certain circumstances, the sale of Common Stock at a price below the original issue price of the Preferred Stock. The dividends are cumulative, and are payable only when and if declared by the board of directors of the Company.

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

7. Stockholders' (Deficit) Equity (Continued)

No dividends have been declared since inception. Aggregate cumulative dividends at December 31, 2014 were $10.8 million.

Liquidation Preference

Holders of Series C Convertible Preferred Stock and Series B Convertible Preferred stock have preference in the event of a liquidation, dissolution, sale, or winding up of the Company equal to the greater of $2.07 per share for Series C and $1.20 per share for Series B, plus any accrued but unpaid dividends whether or not declared, plus any dividends declared but unpaid thereon or such amount per share as would have been payable had all shares of Series C Convertible Preferred Stock and Series B Convertible Preferred Stock been converted into Common Stock immediately prior to such liquidation.

After the payment of all liquidation preferences to holders of Series C and Series B Convertible Preferred Stock, holders of the Series A Preferred Stock have preference in the event of a liquidation, dissolution, sale, or winding up of the Company equal to the greater of $1.00 per share, plus any accrued but unpaid dividends whether or not declared, plus any dividends declared but unpaid thereon or such amount per share as would have been payable had all shares of Series A Convertible Preferred Stock been converted into Common Stock immediately prior to such liquidation.

Thereafter, if assets remain in the Company, the holders of the Common Stock shall receive all of the remaining assets of the Company pro rata based on the number of shares of Common Stock held by each. If the assets of the Company are insufficient to pay the full preferential amounts to the preferred stockholders, the assets shall be distributed ratably among such holders in proportion to their aggregate liquidation preference amounts.

As the Preferred Stock may become redeemable upon an event that is outside of the control of the Company, the Preferred Stock has been classified outside of stockholders' (deficit) equity. Since the Preferred Stock is not initially redeemable and it is not probable that it will become redeemable, the carrying value of the Preferred Stock has not been adjusted.

Voting Rights

Holders of the Series A, Series B and Series C Convertible Preferred Stock are entitled to vote as a single class with the holders of Common Stock and shall have one vote for each equivalent common share into which the preferred stock is convertible. A majority vote of the Series A Preferred Stockholders, Series B Preferred Stockholders and Series C Preferred Stockholders is required in order to amend the Certificate of Incorporation or By-Laws; reclassify Common Stock or establish another class of stock; create or authorize additional shares of preferred stock; effect a sale, liquidation, or merger of the Company; repurchase or redeem any capital stock; or engage in any action that would adversely affect the holders of the preferred stock.

The Company assessed the Series A, B and C Convertible Preferred Stock for any beneficial conversion features or embedded derivatives, including the conversion option, that would require bifurcation from the Series A, B and C Convertible Preferred Stock and receive separate accounting treatment. Based on the Company's determination that the Preferred Stock is an "equity host," the Company determined that all features of the Preferred Stock are clearly and closely related to the

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

7. Stockholders' (Deficit) Equity (Continued)

equity host, and do not require bifurcation as a derivative liability. On the date of issuance, the fair value of Common Stock into which the Series A, B and C Convertible Preferred Stock was convertible was less than the effective conversion price of the Series A, B and C Convertible Preferred Stock, and as such, there was no intrinsic value of the conversion option at the commitment date.

Common Stock

The holders of the Company's Common Stock are entitled to one vote for each share held. Common stockholders are not entitled to receive dividends, unless declared by the board of directors.

The Company has reserved the following shares of Common Stock for the potential conversion of Preferred Stock and the issuance of Common Stock in connection with stock options:

	December 31	
	2013	2014
Series A Convertible Preferred Stock	40,000,000	40,000,000
Series B Convertible Preferred Stock	—	20,916,663
Series C Convertible Preferred Stock	—	24,154,589
Warrants	150,000	233,333
Stock options	3,053,741	9,765,404
	43,203,741	95,069,989

8. Stock Awards

The Company grants restricted stock awards, incentive stock options (ISO), and nonstatutory stock options (NSO) under the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan (the Plan), as amended and restated. At December 31, 2014, there were 1,504,637 shares available for future grant under the Plan. ISOs may not be granted at less than fair value on the date of the grant. Furthermore, the exercise price of ISOs granted to an employee, who at the time of grant is a 10% shareholder, may not be less than 110% of the fair value on the date of grant.

Terms of restricted stock awards and stock option agreements, including vesting requirements, are determined by the board of directors, subject to the provisions of the Plan. Options and restricted stock awards granted by the Company generally vest ratably over four years, with a one-year cliff for new employee awards, and are exercisable from the date of grant for a period of ten years. For options and restricted stock awards granted to date, the exercise price equaled the estimated fair value of the Common Stock as determined by the board of directors on the date of grant. The dates of the Company's contemporaneous valuations have not always coincided with the dates of the stock option grants. For financial reporting purposes, the Company performed common stock valuations retrospectively, with the assistance of a third-party specialist, as of January 6, 2014, July 30, 2014 and November 10, 2014 to determine stock-based compensation expense.

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

8. Stock Awards (Continued)

During the year ended December 31, 2013, the Company issued 683,450 and 610,000 shares of Common Stock to employees and non-employees, respectively. The shares were issued under the terms of the Plan, and allow the Company, at its discretion, to repurchase unvested shares if the employees terminate their relationship with the Company. The shares vest over a one-year or four-year term. The shares are recorded in stockholders' (deficit) equity as they vest. The Company did not issue any shares of Common Stock to employees or non-employees during the year ended December 31, 2014.

A summary of the Company's unvested restricted stock and related information follows:

	Shares	Weighted-Average Grant Date Fair Value
Unvested at December 31, 2013	4,602,111	$ 0.07
Granted	—	—
Vested	(2,193,536)	0.06
Repurchased	(69,533)	0.06
Unvested at December 31, 2014	2,339,042	0.08

The Company has granted restricted stock to non-employees which contain both performance-based and service-based vesting criteria. Stock-based compensation expense associated with these performance-based awards is recognized if the performance condition is considered probable of achievement using management's best estimates. During the year ended December 31, 2014 management concluded that the milestones associated with 1,000,000 shares of performance-based restricted stock were probable of achievement, and the Company began to record stock-based compensation expense using the accelerated attribution method, accordingly. The Company recorded $0.9 million of stock-based compensation expense for non-employee performance-based awards in the year ended December 31, 2014. A summary of the Company's stock option activity and related information follows:

	Shares	Weighted-Average Exercise Price	Remaining Contractual Life (in Years)	Aggregate Intrinsic Value(3) (in thousands)
Outstanding at December 31, 2013	2,118,900	$ 0.27	9.81	$ 148
Granted	6,743,800	0.39		
Exercised	(57,870)	0.27		
Canceled	(544,063)	0.28		
Outstanding at December 31, 2014(1)	8,260,767	$ 0.37	9.42	$ 7,704
Exercisable at December 31, 2014	944,554	$ 0.31	8.99	$ 940
Vested and expected to vest at December 31, 2014(2)	7,932,739	$ 0.37	9.42	$ 7,399

(1) Includes 916,490 unvested shares of common stock related to early exercises of stock options.

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

8. Stock Awards (Continued)

(2) Represents the number of vested options as of December 31, 2014, plus the number of unvested options expected to vest as of December 31, 2014.

(3) Intrinsic value represents the amount by which the fair market value as of December 31, 2014 of the underlying common stock exceeds the exercise price of the option.

The fair value of stock options is estimated on the grant date using the Black-Scholes option-pricing model based on the following weighted average assumptions:

	Year Ended	
	December 31, 2013	December 31, 2014
Risk-free interest rate	1.70% - 2.84%	1.70% - 2.14%
Expected dividend yield	0.00%	0.00%
Expected term (years)	6.1	6.1
Expected stock price volatility	88.96%	92.99%

The weighted-average grant date fair value of options granted in the years ended December 31, 2013 and 2014 was $0.22 and $0.63, respectively. The total intrinsic value of options exercised in the year ended December 31, 2014 was $0.1 million. There were no options exercised in the year ended December 31, 2013.

Total stock-based compensation expense recognized for all stock-based compensation awards in the statements of operations is as follows (in thousands):

	Year Ended December 31	
	2013	2014
Research and development	$ 224	$ 1,052
General and administrative	127	1,274
Total stock-based compensation expense	$ 351	$ 2,326

At December 31, 2014, there was $4.7 million of total unrecognized compensation cost related to nonvested stock awards, which is expected to be recognized over a weighted-average period of 2.84 years. Due to an operating loss, the Company does not record tax benefits associated with stock-based compensation or option exercises. Tax benefit will be recorded when realized.

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

9. Income Taxes

A reconciliation of the U.S. statutory income tax rate to the Company's effective tax rate is as follows for the years ended December 31, 2013 and 2014:

	Year Ended December 31,	
	2013	2014
Federal income tax (benefit) at statutory rate	34.00%	34.00%
Permanent differences	0.38	(1.87)
Federal research and development credits	2.08	1.30
State income tax, net of federal benefit	5.16	4.93
Other	1.46	0.70
Change in valuation allowance	(43.08)	(39.06)
Effective income tax rate	0.00%	0.00%

The Company had net losses in all periods presented and therefore has not recognized any federal or state income tax expense.

The Company's deferred tax assets and liabilities consist of the following:

	December 31	
	2013	2014
Deferred tax assets:		
Net operating loss carryforwards	$ 15,993	$ 30,603
Research and development credit carryforwards	1,123	1,949
Accrued expenses and other	294	628
Deferred rent	109	54
Total gross deferred tax asset	17,519	33,234
Deferred tax liability	(139)	(85)
Debt discount	(41)	(74)
Valuation allowance	(17,339)	(33,075)
Net deferred tax asset	$ —	$ —

Management has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, and has determined that it is more likely than not that the Company will not recognize the benefits of its federal and state deferred tax assets, and as a result, a valuation allowance of $17.3 million and $33.0 million has been established at December 31, 2013 and 2014, respectively. The change in the valuation allowance was $9.0 million and $15.7 million for the years ended December 31, 2013 and 2014, respectively. The Company has incurred net operating losses (NOL) since inception. At December 31, 2014, the Company had federal and state NOL carryforwards of $78.1 million and $76.6 million, respectively, which expire beginning in 2030. As of December 31, 2014, the Company had federal and state research and development tax credit carryforwards of $1.5 million and $0.7 million, respectively, which expire beginning in 2025. The

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

9. Income Taxes (Continued)

Company does not have any NOL carryforwards associated with deductible stock option exercises as of December 31, 2013 or 2014.

The Internal Revenue Code of 1986, as amended (the "Code"), provides for a limitation of the annual use of net operating losses and other tax attributes (such as research and development tax credit carryforwards) following certain ownership changes (as defined by the Code) that could limit the Company's ability to utilize these carryforwards. At this time, the Company has not completed a study to assess whether an ownership change under Section 382 of the Code has occurred, or whether there have been multiple ownership changes since the Company's formation. The Company may have experienced ownership changes, as defined by the Code, as a result of past financing transactions. Accordingly, the Company's ability to utilize the aforementioned carryforwards may be limited. Additionally, U.S. tax laws limit the time during which these carryforwards may be applied against future taxes. Therefore, the Company may not be able to take full advantage of these carryforwards for federal or state income tax purposes.

Interest and penalty charges, if any, related to unrecognized tax benefits would be classified as income tax expense in the accompanying statements of operations. As of December 31, 2013 and 2014, the Company has no accrued interest related to uncertain tax positions. Interest and penalty charges, if any, related to unrecognized tax benefits would be classified as income tax expense in the accompanying statements of operations In many cases, the Company's uncertain tax positions are related to years that remain subject to examination by relevant tax authorities. Since the Company is in a loss carryforward position, it is generally subject to examination by the U.S. federal, state, and local income tax authorities for all tax years in which a loss carryforward is available.

10. Commitments

Operating Lease

The Company leases its corporate headquarters under an operating lease that expires on November 1, 2015. In March 2014, the Company amended its existing lease agreement to expand the size of the original premises by 4,422 square feet. The rent per square foot for the additional space is $52.00. All other terms of the lease remain materially unchanged. On February 1, 2015, the Company's option to extend the term of the lease for an additional three-year period expired. The Company did not exercise its option. The Company's lease agreement has escalating rent payments. The Company recorded $0.6 million and $0.8 million of rent expense for the years ended December 31, 2013 and 2014, respectively. The Company records rent expense on a straight-line basis. The lease agreement required the Company to pay a security deposit of $0.1 million, which is included in restricted cash in the accompanying balance sheet.

The minimum aggregate future lease commitments at December 31, 2014, are as follows (in thousands):

2015	$ 875

Blueprint Medicines Corporation

Notes to Financial Statements (Continued)

11. Related-Party Transactions

The Company has received consulting and management services from one of its investors, Third Rock Ventures LLC (Third Rock Ventures). The Company paid Third Rock Ventures $0.4 million for these services during each of the years ended December 31, 2013 and 2014. At December 31, 2013, $0.1 million due to Third Rock Ventures was included in accrued expenses. All amounts owed to Third Rock Ventures for services rendered in the year ended December 31, 2014 were paid by December 31, 2014.

12A. Subsequent Events

On February 11, 2015, the Company entered into a lease for approximately 38,500 rentable square feet of office and laboratory space in Cambridge, Massachusetts, with a lease term commencing June 15, 2015 and ending on October 31, 2022, assuming occupancy in October 2015. The Company has an option to extend the lease for five additional years. The lease agreement requires the Company to pay a security deposit of $1.3 million, which will be recorded in restricted cash on the Company's balance sheet. The lease has a total committment of $17.9 million over the seven year term.

In February 2015, the Company amended the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan to increase the number of shares available for grant to 19,750,100.

12B. Subsequent Events — Collaboration

In March 2015, the Company entered into a research, development and commercialization agreement, with Alexion Pharma Holding, or Alexion, to research, develop and commercialize drug candidates for an undisclosed activated kinase target, which is the cause of a rare genetic disease. Under the terms of this agreement, the Company will be responsible for research and pre-clinical development activities related to drug candidates and Alexion will be responsible for all clinical development, manufacturing and commercialization activities related to drug candidates.

Alexion is responsible for funding 100% of the Company's research and development costs incurred under the research plan, including pass-through costs and the Company's employees' time devoted to the research plan at a negotiated yearly rate per full-time equivalent for its employees' time and associated overhead expenses. The Company received a $15 million non-refundable upfront payment in March 2015 upon execution of the Alexion agreement and is eligible to receive over $250 million in payments upon the successful achievement of pre-specified pre-clinical, clinical, regulatory and commercial milestones. Alexion will pay the Company customary royalties, on a country-by-country and licensed product-by-licensed product basis, on worldwide net product sales of licensed products.

Alexion has the right to terminate the Alexion agreement due to the Company's uncured breach or insolvency, industry transaction involving the Company, or voluntarily upon 90 days prior written notice. The Company has the right to terminate the Alexion agreement due to Alexion's uncured breach or insolvency, or certain other events agreed to by the parties.

Shares

Blueprint Medicines Corporation

Common Stock

Goldman, Sachs & Co. **Cowen and Company**

JMP Securities

Wedbush PacGrow

Through and including , 2015 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

Part II

Information Not Required in Prospectus

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the sale of common stock being registered. All amounts are estimates except for the Securities and Exchange Commission, or SEC, registration fee, the FINRA filing fee and The NASDAQ Global Market listing fee.

Item	Amount to be paid
SEC registration fee	$ 11,620
FINRA filing fee	17,000
The NASDAQ Global Market listing fee	125,000
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer Agent fees and expenses	*
Miscellaneous expenses	*
Total	$ *

* To be provided by amendment

Item 14. Indemnification of Directors and Officers

Section 145(a) of the Delaware General Corporation Law provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), because he or she is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Section 145(b) of the Delaware General Corporation Law provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor because the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made with respect to any claim, issue or matter as to which he or she shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, he or she is fairly and reasonably entitled to

indemnity for such expenses that the Court of Chancery or other adjudicating court shall deem proper.

Section 145(g) of the Delaware General Corporation Law provides, in general, that a corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify the person against such liability under Section 145 of the Delaware General Corporation Law.

Our amended and restated certificate of incorporation, or the Charter, which will become effective upon completion of the offering, provides that no director of our company shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability (1) for any breach of the director's duty of loyalty to us or our stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) in respect of unlawful dividend payments or stock redemptions or repurchases, or (4) for any transaction from which the director derived an improper personal benefit. In addition, our Charter provides that if the Delaware General Corporation Law is amended to authorize the further elimination or limitation of the liability of directors, then the liability of a director of our company shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

The Charter further provides that any repeal or modification of such article by our stockholders or amendment to the Delaware General Corporation Law will not adversely affect any right or protection existing at the time of such repeal or modification with respect to any acts or omissions occurring before such repeal or modification of a director serving at the time of such repeal or modification.

Our amended and restated by-laws, or the By-Laws, which will become effective upon completion of the offering, provide that we will indemnify each of our directors and officers and, in the discretion of our board of directors, certain employees, to the fullest extent permitted by the Delaware General Corporation Law as the same may be amended (except that in the case of amendment, only to the extent that the amendment permits us to provide broader indemnification rights than the Delaware General Corporation Law permitted us to provide prior to such the amendment) against any and all expenses, judgments, penalties, fines and amounts reasonably paid in settlement that are incurred by the director, officer or such employee or on the director's, officer's or employee's behalf in connection with any threatened, pending or completed proceeding or any claim, issue or matter therein, to which he or she is or is threatened to be made a party because he or she is or was serving as a director, officer or employee of our company, or at our request as a director, partner, trustee, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of our company and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. Article V of the By-Laws further provides for the advancement of expenses to each of our directors and, in the discretion of the board of directors, to certain officers and employees.

In addition, the By-Laws provide that the right of each of our directors and officers to indemnification and advancement of expenses shall be a contract right and shall not be exclusive of any other right now possessed or hereafter acquired under any statute, provision of the Charter or By-Laws, agreement, vote of stockholders or otherwise. Furthermore, Article V of the By-Laws

authorizes us to provide insurance for our directors, officers and employees, against any liability, whether or not we would have the power to indemnify such person against such liability under the Delaware General Corporation Law or the provisions of Article V of the By-Laws.

In connection with the sale of common stock being registered hereby, we have entered into indemnification agreements with each of our directors and our executive officers. These agreements will provide that we will indemnify each of our directors and such officers to the fullest extent permitted by law and the Charter and By-Laws.

We also maintain a general liability insurance policy, which covers certain liabilities of directors and officers of our company arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended, against certain liabilities.

Item 15. Recent Sales of Unregistered Securities

In the three years preceding the filing of this registration statement, we have issued the following securities that were not registered under the Securities Act:

Issuances of capital stock

In April 2011, February 2012, March 2012, October 2012, January 2013 and September 2013, we issued and sold an aggregate of 40,000,000 shares of our Series A convertible preferred stock to two investors for aggregate consideration of $40,000,000.

In January 2014, we issued an aggregate of 20,916,663 shares of our Series B convertible preferred stock for aggregate consideration of $25,099,996 to seven investors.

In November 2014, we issued an aggregate of 24,154,589 shares of our Series C convertible preferred stock for aggregate consideration of $49,999,999 to eighteen investors.

No underwriters were used in the foregoing transactions. All sales of securities described above were made in reliance upon the exemption from registration provided by Section 4(a)(2) of the Securities Act (and/or Regulation D promulgated thereunder) for transactions by an issuer not involving a public offering. All of the foregoing securities are deemed restricted securities for the purposes of the Securities Act.

Grants of warrants

In May 2013 we issued warrants to purchase 150,000 shares of Series A Preferred Stock at a per share exercise price of $1.00, and in November 2014 we issued warrants to purchase 83,333 shares of our Series B Preferred Stock at a per share exercise price of $1.20. The warrant issuances were exempt pursuant to Section 4(a)(2), as transactions by an issuer not involving a public offering. The shares of convertible preferred stock issued upon exercise of warrants and the shares of common stock issued upon conversion of the convertible preferred stock are deemed restricted securities for the purposes of the Securities Act.

Grants of stock options and restricted stock

Since January 1, 2012, we have granted stock options to purchase an aggregate of 12,012,300 shares of our common stock at exercise prices ranging from $0.27 to $1.72, to employees, directors and consultants pursuant to our stock option plan. Since January 1, 2012, we

have granted an aggregate of 11,429,450 shares of restricted stock. The issuances of these securities were exempt either pursuant to Rule 701, as a transaction pursuant to a compensatory benefit plan, or pursuant to Section 4(a)(2), as a transaction by an issuer not involving a public offering.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

See the Exhibit Index attached to this Registration Statement, which is incorporated by reference herein.

(b) Financial statement schedules

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

1. For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

2. For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Cambridge, Commonwealth of Massachusetts, on March 23, 2015.

Blueprint Medicines Corporation

By: /s/ JEFFREY W. ALBERS

Jeffrey W. Albers
President and Chief Executive Officer

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned directors and officers of Blueprint Medicines Corporation (the "Company"), hereby severally constitute and appoint Jeffrey W. Albers and Kyle D. Kuvalanka, and each of them singly, our true and lawful attorneys, with full power to them, and to each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-1 filed herewith, and any and all pre-effective and post-effective amendments to said registration statement, and any registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, in connection with the registration under the Securities Act of 1933, as amended, of equity securities of the Company, and to file or cause to be filed the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as each of us might or could do in person, and hereby ratifying and confirming all that said attorneys, and each of them, or their substitute or substitutes, shall do or cause to be done by virtue of this Power of Attorney.

Pursuant to the requirements of the Securities Act, this Registration Statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ JEFFREY W. ALBERS Jeffrey W. Albers	President, Chief Executive Officer and Director *(Principal Executive Officer)*	March 23, 2015
/s/ KYLE D. KUVALANKA Kyle D. Kuvalanka	Chief Business Officer *(Principal Financial and Accounting Officer)*	March 23, 2015
/s/ DANIEL S. LYNCH Daniel S. Lynch	Executive Chairman of the Board	March 23, 2015
/s/ NICHOLAS LYDON, PH.D. Nicholas Lydon, Ph.D.	Director	March 23, 2015

Signature	Title	Date
/s/ ALEXIS BORISY Alexis Borisy	Director	March 23, 2015
/s/ STEPHEN C. KNIGHT, M.D. Stephen C. Knight, M.D.	Director	March 23, 2015
/s/ CHARLES A. ROWLAND, JR. Charles A. Rowland, Jr.	Director	March 23, 2015
/s/ THILO SCHROEDER, PH.D. Thilo Schroeder, Ph.D.	Director	March 23, 2015

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
1.1*	Form of Underwriting Agreement.
3.1	Form of Fourth Amended and Restated Certificate of Incorporation (to be effective upon pricing of the offering).
3.2	Form of Fifth Amended and Restated Certificate of Incorporation (to be effective upon completion of the offering).
3.3	Form of Amended and Restated Bylaws (to be effective upon completion of this offering).
4.1*	Specimen Common Stock Certificate.
4.2	Form of Series A Preferred Stock Warrant.
4.3	Form of Series B Preferred Stock Warrant.
4.4	Second Amended and Restated Investors' Rights Agreement, dated as of November 7, 2014, by and among the Registrant and the Investors listed therein.
4.5	Second Amended and Restated Stockholders' Agreement, dated as of November 7, 2014, by and among the Registrant and the Stockholders listed therein.
5.1*	Opinion of Goodwin Procter LLP.
10.1	2011 Stock Option and Grant Plan; as amended and forms of award agreement thereunder.
10.2	2015 Stock Option and Incentive Plan and forms of award agreement thereunder.
10.3	Lease Agreement, dated June 24, 2011, by and between the Registrant and ARE-MA Region No. 38, LLC, as amended.
10.4	Lease Agreement, dated February 11, 2015, by and between the Registrant and 38 Sidney Street Limited Partnership.
10.5	Offer Letter, dated June 12, 2014, by and between the Registrant and Jeffrey W. Albers.
10.6	Offer Letter, dated August 1, 2013, by and between the Registrant and Kyle D. Kuvalanka.
10.7	Offer Letter, dated November 22, 2011, by and between the Registrant and Christoph Lengauer.
10.8	Offer Letter, dated November 20, 2014, by and between the Registrant and Anthony Boral.
10.9	Loan and Security Agreement, dated May 24, 2013, by and between the Registrant and Silicon Valley Bank, as amended.
10.10†	Research, Development & Commercialization Agreement, dated March 2, 2015, by and between the the Registrant and Alexion Pharma Holding.
10.11	Form of Indemnification Agreement, to be entered into between the Registrant and its directors.
10.12	Form of Indemnification Agreement, to be entered into between the Registrant and its officers.
21.1	Subsidiaries of Registrant.

Exhibit Number	Description of Exhibit
23.1	Consent of Ernst & Young LLP.
23.3*	Consent of Goodwin Procter LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (included on signature page).

* To be filed by amendment.

† Application has been made to the Securities and Exchange Commission for confidential treatment of certain provisions. Omitted material for which confidential treatment has been requested has been filed separately with the Securities and Exchange Commission.

FOURTH AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION

OF

BLUEPRINT MEDICINES CORPORATION

Blueprint Medicines Corporation, a corporation organized and existing under the laws of the State of Delaware (the "**Corporation**"), hereby certifies as follows:

1. That the name of this corporation is Blueprint Medicines Corporation, and that this corporation was originally incorporated pursuant to the General Corporation Law by filing the original Certificate of Incorporation on October 14, 2008 (the "**Original Certificate**"), under the name ImmunoCo, Inc., as amended by a Certificate of Amendment dated May 21, 2010. That an Amended and Restated Certificate of Incorporation of this corporation was filed with the Delaware Secretary of State on April 4, 2011, as amended by a Certificate of Amendment dated May 24, 2013 and a Certificate of Amendment dated November 14, 2013. That a Second Amended and Restated Certificate of Incorporation of this corporation was filed with the Delaware Secretary of State on January 3, 2014, as amended by a Certificate of Amendment dated August 18, 2014 and a Certificate of Amendment dated November 3, 2014. That a Third Amended and Restated Certificate of Incorporation of this corporation was filed with the Delaware Secretary of State on November 10, 2014.

2. This Fourth Amended and Restated Certificate of Incorporation (the "**Certificate**") amends, restates and integrates the provisions of the Third Amended and Restated Certificate of Incorporation, and as amended from time to time, and was duly adopted in accordance with the provisions of Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware (the "**DGCL**").

3. The text of the Third Amended and Restated Certificate is hereby amended and restated in its entirety to provide as herein set forth in full.

ARTICLE I

NAME

The name of the Corporation is Blueprint Medicines Corporation.

ARTICLE II

REGISTERED AGENT

The address of the registered office of the Corporation in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, New Castle County,

Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE III

PURPOSE

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

ARTICLE IV

CAPITAL STOCK

The total number of shares of capital stock which the Corporation shall have authority to issue is 210,304,585 shares of which (i) 120,000,000 shares shall be a class designated as common stock, par value $0.001 per share (the "**Common Stock**"), (ii) 85,304,585 shares shall be a class designated as convertible preferred stock, par value $0.001 per share (the "**Pre-IPO Preferred Stock**"), and (iii) 5,000,000 shares shall be a class designated as undesignated preferred stock, par value $0.001 per share (the "**Undesignated Preferred Stock**").

Except as otherwise provided in any certificate of designations of any series of Undesignated Preferred Stock, the number of authorized shares of the class of Common Stock or Undesignated Preferred Stock may from time to time be increased or decreased (but not below the number of shares of such class outstanding) by the affirmative vote of the holders of a majority in voting power of the outstanding shares of capital stock of the Corporation irrespective of the provisions of Section 242(b)(2) of the DGCL.

The powers, preferences and rights of, and the qualifications, limitations and restrictions upon, each class or series of stock shall be determined in accordance with, or as set forth below in, this Article IV.

A. COMMON STOCK

Subject to all the rights, powers and preferences of the Undesignated Preferred Stock and except as provided by law or in this Certificate (or in any certificate of designations of any series of Undesignated Preferred Stock):

(a) the holders of the Common Stock shall have the exclusive right to vote for the election of directors of the Corporation (the "**Directors**") and on all other matters requiring stockholder action, each outstanding share entitling the holder thereof to one vote on each matter properly submitted to the stockholders of the Corporation for their vote; provided, however, that, except as otherwise required by law, holders of Common Stock, as such,

shall not be entitled to vote on any amendment to this Certificate (or on any amendment to a certificate of designations of any series of Undesignated Preferred Stock) that alters or changes the powers, preferences, rights or other terms of one or more outstanding series of Undesignated Preferred

Stock if the holders of such affected series of Undesignated Preferred Stock are entitled to vote, either separately or together with the holders of one or more other such series, on such amendment pursuant to this Certificate (or pursuant to a certificate of designations of any series of Undesignated Preferred Stock) or pursuant to the DGCL;

(b) dividends may be declared and paid or set apart for payment upon the Common Stock out of any assets or funds of the Corporation legally available for the payment of dividends, but only when and as declared by the Board of Directors or any authorized committee thereof; and

(c) upon the voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the net assets of the Corporation shall be distributed pro rata to the holders of the Common Stock.

B. PRE-IPO PREFERRED STOCK

Designation. 40,150,000 shares of Pre-IPO Preferred Stock shall be designated Series A Preferred Stock (the "**Series A Preferred Stock**"), 20,999,996 shares of Pre-IPO Preferred Stock shall be designated as Series B Preferred Stock (the "**Series B Preferred Stock**"), and 24,154,589 shares of Pre-IPO Preferred Stock shall be designated as Series C Preferred Stock (the "**Series C Preferred Stock**").

Unless otherwise indicated, references to "Sections" in this Part B of this Article IV refer to sections of Part B of this Article IV.

1. Dividends.

1.1 From and after the date of the issuance of any shares of Series A Preferred Stock, dividends at the rate per annum of $0.08 per share shall accrue on such shares of Series A Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock) (the "**Series A Accruing Dividends**"). From and after the date of the issuance of any shares of Series B Preferred Stock, dividends at the rate per annum of $0.096 per share shall accrue on such shares of Series B Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock) (the "**Series B Accruing Dividends**"). From and after the date of the issuance of any shares of Series C Preferred Stock, dividends at the rate per annum of $0.1656 per share shall accrue on such shares of Series C Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock) (the "**Series C Accruing Dividends**" and together with the Series A Accruing Dividends and the Series B Accruing Dividends, the "**Accruing Dividends**"). Accruing Dividends shall accrue from day to day and shall be cumulative; provided however, that except as set forth in the following sentence of this Section 1.1 or in Subsection 2.1, such Accruing Dividends shall be payable only when, as, and if declared by the Board of Directors of the Corporation (the "**Board of Directors**") and the Corporation shall be under no obligation to pay such Accruing Dividends. The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock

of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in the Certificate of Incorporation) (i) the holders of the Series C Preferred Stock and the Series B Preferred Stock shall first receive, on a pari passu basis, prior and in preference to, any cash payment of dividend on the Series A Preferred Stock or Common Stock equal to the Series C Dividend Preference (as defined below) in the case of the Series C Preferred Stock and the Series B Dividend Preference (as defined below) in the case of the Series B Preferred Stock, and (ii) the holders of the Series A Preferred Stock shall first receive, prior and in preference to, any cash payment of dividend on the Common Stock, in an amount at least equal to the Series A Dividend Preference (as defined below). The "**Series C Dividend Preference**", "**Series B Dividend Preference**" and the "**Series A Dividend Preference**", as the case may be, shall equal the greater of (i) the amount of the aggregate Series C Accruing Dividends, Series B Accruing Dividends or the Series A Accruing Dividends, as the case may be, then accrued on such share of Series C Preferred Stock, Series B Preferred Stock or Series A Preferred Stock, as the case may be, and not previously paid and (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series C Preferred Stock, Series B Preferred Stock, or Series A Preferred Stock, as the case may be, as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable upon conversion of a share of Series C Preferred Stock, Series B Preferred Stock, or Series A Preferred Stock, as the case may be, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series C Preferred Stock, Series B Preferred Stock, or Series A Preferred Stock, as the case may be, determined by (1) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (2) multiplying such fraction by an amount equal to, in the case of the Series C Preferred Stock, the Series C Original Issue Price (as defined below), in the case of the Series B Preferred Stock, the Series B Original Issue Price (as defined below), and in the case of the Series A Preferred Stock, the Series A Original Issue Price (as defined below); provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend preference payable to the holders of the Series C Preferred Stock, the Series B Preferred Stock and the Series A Preferred Stock, as the case may be, pursuant to this Section 1.1 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest dividend for the Series C Preferred Stock, the Series B Preferred Stock and the Series A Preferred Stock, as the case may be. The holders of the outstanding Series A Preferred Stock can waive any dividend preference that such holders shall be entitled to receive under this Section 1.1 with respect to shares of the Series A Preferred Stock upon the affirmative vote or written consent of the holders of at least a majority of the shares of Series A Preferred Stock then outstanding (voting as a separate class). The holders of the outstanding Series B Preferred Stock can waive any dividend preference that such holders shall be entitled to receive under this Section 1.1 with respect to shares of the Series B Preferred Stock upon the affirmative vote or written consent of the holders of at least a majority of the shares of Series B Preferred Stock then outstanding (voting as a

separate class). The holders of the outstanding Series C Preferred Stock can waive any dividend preference that such holders shall be entitled to receive under this Section 1.1 with respect to shares of the Series C Preferred Stock upon the affirmative vote or written consent of the holders of at least a majority of the shares of

Series C Preferred Stock then outstanding (voting as a separate class). The "**Series A Original Issue Price**" shall mean $1.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock. The "**Series B Original Issue Price**" shall mean $1.20 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock. The "**Series C Original Issue Price**" shall mean $2.07 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock. The "**Original Issue Price**" shall mean the Series A Original Issue Price in the case of the Series A Preferred Stock, the Series B Original Issue Price in the case of the Series B Preferred Stock, and the Series C Original Issue Price in the case of the Series C Preferred Stock.

1.2 After payment of such dividend preferences, any additional dividends or distributions shall be distributed among all holders of Common Stock and Preferred Stock in proportion to the number of shares of Common Stock that would be held by each such holder if all shares of Preferred Stock were converted to Common Stock at the then effective conversion rate.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Payments to Holders of Preferred Stock.

2.1.1 Payments to Holders of Series C Preferred Stock and Series B Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event (as defined below), the holders of shares of the Series C Preferred Stock and the Series B Preferred Stock then outstanding shall be entitled on a pari passu basis to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series A Preferred Stock and Common Stock, or any other class or series of stock ranking on liquidation junior to the Series C Preferred Stock and the Series B Preferred Stock by reason of their ownership thereof, an amount per share equal to (a) in the case of the Series C Preferred Stock, the greater of (i) the Series C Original Issue Price, plus any Series C Accruing Dividends accrued but unpaid thereon together with any other dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had all shares of Series C Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event and (b) in the case of the Series B Preferred Stock, the greater of (i) the Series B Original Issue Price, plus any Series B Accruing Dividends accrued but unpaid thereon together with any other dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had all shares of Series B Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event. The aggregate amount of all preferential amounts required to be paid to the holders of Series C Preferred Stock

pursuant to this Section 2.1.1 shall be hereafter referred to as the "**Series C Liquidation Amount**." The aggregate amount of all preferential amounts required to be paid to the holders of Series B Preferred Stock pursuant to this Section 2.1.1 shall be hereafter referred to as the "**Series B Liquidation Amount**." If upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay on a pari passu basis the holders of shares of the Series C Preferred Stock and Series B Preferred Stock the full amount to which they shall be entitled under this Section 2.1.1, the holders of shares of the Series C Preferred Stock and the Series B Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

2.1.2 Payments to Holders of Series A Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event and after the payment of the full Series C Liquidation Amount and the full Series B Liquidation Amount, the holders of shares of the Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of the Common Stock, or any other class or series of stock ranking on liquidation junior to the Series A Preferred Stock, by reason of their ownership thereof, an amount per share equal to the greater of (i) the Series A Original Issue Price, plus any Series A Accruing Dividends accrued but unpaid thereon together with any other dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had all shares of Series A Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event. The aggregate amount of all preferential amounts required to be paid to the holders of Series A Preferred Stock pursuant to this Section 2.1.2 shall be hereafter referred to as the "**Series A Liquidation Amount**." If upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation available for distribution to its stockholders after payment of the full Series C Liquidation Amount and the full Series B Liquidation Amount shall be insufficient to pay the holders of shares of the Series A Preferred Stock the full amount to which they shall be entitled under this Section 2.1.2, the holders of shares of the Series A Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

2.2 Payments to Holders of Common Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, after the payment of all preferential amounts required to be paid to the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of shares of Common Stock, pro rata based on the number of shares held by each such holder.

2.3 Deemed Liquidation Events.

2.3.1 Definition. Each of the following events shall be considered a "**Deemed Liquidation Event**" unless the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock, voting or consenting together as a single class on an as-converted basis, elect otherwise by written notice sent to the Corporation at least thirty (30) days prior to the effective date of any such event:

(a) a merger or consolidation in which

(i) the Corporation is a constituent party or

(ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except (A) any such merger or consolidation effected exclusively to change the domicile of the Corporation or (B) any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation (provided that, for the purpose of this Section 2.3.1, all shares of Common Stock issuable upon exercise of Options (as defined below) outstanding immediately prior to such merger or consolidation or upon conversion of Convertible Securities (as defined below) outstanding immediately prior to such merger or consolidation shall be deemed to be outstanding immediately prior to such merger or consolidation and, if applicable, converted or exchanged in such merger or consolidation on the same terms as the actual outstanding shares of Common Stock are converted or exchanged);

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation; or

(c) the closing of the transfer (whether by merger, consolidation or otherwise), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter of this Corporation's securities), of this Corporation's securities if, after such closing, such person or group of affiliated persons would hold 50% or more of the outstanding voting stock of this Corporation (or the surviving or acquiring entity); provided; however, the sale of shares of Preferred Stock in a financing transaction approved by a majority of the Board of Directors (including the affirmative vote of a majority of the Preferred Directors (as defined below)) shall not be a "Deemed Liquidation Event."

2.3.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Section 2.3.1(a)(i) above unless the agreement or plan of merger or consolidation for such transaction (the "**Merger Agreement**") provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 above.

(b) In the event of a Deemed Liquidation Event referred to in Section 2.3.1(a)(ii) or 2.3.1(b) above, if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within ninety (90) days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice to each holder of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock no later than the ninetieth (90th)day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (ii) to require the redemption of such shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock and (ii) if the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock, voting or consenting together as a single class on as-converted basis, so request in a written instrument delivered to the Corporation not later than one hundred twenty (120) days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors, together with any other assets of the Corporation available for distribution to stockholders (the "**Net Proceeds**")), to the extent legally available therefor, on the one hundred fiftieth (150th)day after such Deemed Liquidation Event, to redeem all outstanding shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock at a price per share equal to the Series A Liquidation Amount, the Series B Liquidation Amount, and the Series C Liquidation Amount respectively, in accordance with and in the order of preference specified in Sections 2.1 and 2.2 above. Notwithstanding the foregoing, in the event of a redemption pursuant to the preceding sentence, if the Net Proceeds are not sufficient to redeem all outstanding shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock, or if the Corporation does not have sufficient lawfully available funds to effect such redemption, the Corporation shall redeem first on a pari passu basis a pro rata portion of each holder's shares of Series B Preferred Stock and Series C Preferred Stock to the fullest extent of such Net Proceeds or such lawfully available funds, as the case may be, based on the respective amounts which would otherwise be payable in respect of the shares of Series B Preferred Stock and Series C Preferred Stock to be redeemed if the Net Proceeds or lawfully available funds, as the case may be, were sufficient to redeem all such shares, and shall redeem the remaining shares of Series B Preferred Stock and Series C Preferred Stock to have been redeemed as soon as practicable after the Corporation has funds legally available therefor; and second, after all of the shares of Series B Preferred Stock and Series C Preferred Stock have been redeemed, a pro rata portion of each holder's shares of Series A Preferred Stock, to the fullest extent of such Net Proceeds or such lawfully available funds, as the case may be, based on the amounts which would otherwise be payable in respect of the shares of Series A Preferred Stock to be redeemed if the Net Proceeds or lawfully available funds, as the case may be, were sufficient to redeem all such shares, and shall redeem the remaining shares of Series A Preferred Stock to have been redeemed as soon as practicable after the Corporation has funds legally available therefor. The provisions of Sections 2.3.2(c)(i) through 2.3.2(c)(iv) below shall apply, with such necessary changes in the details thereof as are necessitated by the context, to the

redemption of the Series A Preferred Stock, the Series B Preferred Stock, and the Series C Preferred Stock pursuant to this Section 2.3.2(b). Prior to the distribution or redemption provided for in this Section 2.3.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

(c) Any redemption notice sent pursuant to this Section shall state:

(i) the number of shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock held by the holder that the Corporation shall redeem;

(ii) the redemption date and the redemption price;

(iii) the date upon which the holder's right to convert such shares terminates (as determined in accordance with Section 4.1); and

(iv) that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock to be redeemed.

On or before the redemption date, each holder of shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock to be redeemed on such redemption date, unless such holder has exercised his, her or its right to convert such shares as provided in Section 4, shall surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, and thereupon the redemption price for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof.

If on the applicable redemption date the redemption price payable upon redemption of the shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock to be redeemed on such redemption date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor in a timely manner, then notwithstanding that the certificates evidencing any of the shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock so called for redemption shall not have been surrendered, dividends with respect to such shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock shall cease to accrue after such redemption date and all rights with respect to such shares shall forthwith after the redemption date terminate, except only the right of the holders to receive the redemption price without interest upon surrender of their certificate or certificates therefor.

2.3.3 Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, exclusive license, other disposition or redemption shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the

acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board of Directors and approved by the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock, voting or consenting together as a single class on an as-converted basis.

2.3.4 Allocation of Escrow or Contingent Payments. In the case of a Deemed Liquidation Event pursuant to Section 2.3.1(a)(i) above, if any portion of the consideration payable to the stockholders of the Corporation is placed into escrow and/or is payable to the stockholders of the Corporation subject to contingencies, the Merger Agreement shall provide that (a) the portion of such consideration that is not placed in escrow and not subject to any contingencies (the "**Initial Consideration**") shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 above as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event and (b) any additional consideration which becomes payable to the stockholders of the Corporation upon release from escrow or satisfaction of contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 above after taking into account the previous payment of the Initial Consideration as part of the same transaction. The result of this approach is that, for certain transactions, the portion of the transaction consideration that is subject to an escrow or other contingencies may be allocated disproportionately to the holders of Common Stock.

3. Voting.

3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Certificate of Incorporation, holders of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock shall vote together with the holders of Common Stock as a single class.

3.2 Election of Directors. The holders of record of a majority of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect three (3) directors of the Corporation (the "**Series A Directors**"). The holders of record of a majority of the shares of Series B Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation (the "**Series B Director**", and together with the Series A Directors, the "**Preferred Directors**"). The holders of record of the majority of shares of Common Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation. Any director elected as provided in the preceding sentences may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. The holders of record of the shares of Common Stock and of any other class or series of voting

stock (including the Series A Preferred Stock, the Series B Preferred Stock, and the Series C Preferred Stock), exclusively and voting together as a single class, shall be entitled to elect the balance of the total number of directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. A vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Section 3.2.

3.3 Preferred Stock Protective Provisions. At any time when any shares of Series A Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly (including through any subsidiary of the Corporation) by amendment, merger, consolidation or otherwise, do or consent to do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock, voting together as a single class on an as-converted basis, given in writing or by vote at a meeting, consenting or voting (as the case may be):

(a) liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any Deemed Liquidation Event, or consent to any of the foregoing;

(b) create, or authorize the creation of, or issue or obligate itself to issue (including by way of reclassification, alteration or amendment of any existing security), shares of any security, including any security convertible into or exercisable for any equity security, having rights, preferences and privileges senior to or on parity with the Series A Preferred Stock, the Series B Preferred Stock, or the Series C Preferred Stock or increase the authorized number of shares of Series A Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock or of any additional class or series of capital stock unless the same ranks junior

to the Series A Preferred Stock, the Series B Preferred Stock, and the Series C Preferred Stock with respect to the distribution of assets upon the liquidation, dissolution or winding up of the Corporation, the payment of dividends and redemption rights;

(c) (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Series A Preferred Stock, the Series B Preferred Stock, or the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series A Preferred Stock, the Series B Preferred Stock, or the Series C Preferred Stock in respect of any such right, preference or privilege, or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series A Preferred Stock, the Series B Preferred Stock, or the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series A Preferred Stock, the Series B Preferred Stock, or the Series C Preferred Stock in respect of any such right, preference or privilege;

(d) purchase, redeem or pay or declare any dividend or other distribution on any shares of capital stock of the Corporation prior to purchases and redemptions of or payment of dividends or other distributions to the Series A Preferred Stock, the Series B Preferred Stock, and the Series C Preferred Stock other than (i) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then current fair market value thereof or (ii) as approved by at least a majority of the members of the Board of Directors, including the approval of a majority of the Preferred Directors;

(e) create or authorize the creation of any debt security other than debt securities issued to banks, equipment lessors, or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing, or real property leasing transaction, unless at least a majority of the members of the Board of Directors, including the approval of a majority of the Preferred Directors, has previously approved the creation of such debt security;

(f) create or hold capital stock in any subsidiary that is not a wholly-owned subsidiary or dispose of any capital stock of any subsidiary or all of or substantially all of the assets of any subsidiary;

(g) increase the authorized number of directors constituting the Board of Directors above eight (8);

(h) pay bonuses to senior executives of the Corporation not contemplated in the Corporation's annual budget approved by the Board of Directors (including a majority of the Preferred Directors) or in the employment agreements of such senior executives, unless otherwise approved by the Board of Directors (including a majority of the Preferred Directors);

(i) enter into any lines of business that are not primarily related to the business of the Corporation as conducted as of the date hereof, unless otherwise approved by the Board of Directors (including a majority of the Preferred Directors);

(j) grant any exclusive license to any of the Corporation's material intellectual property rights, unless otherwise approved by the Board of Directors (including a majority of the Preferred Directors);

(k) acquire all or substantially all of the properties, assets or stock of any other company or entity, unless otherwise approved by the Board of Directors (including a majority of the Preferred Directors); or

(l) enter into a material transaction with an affiliate of the Corporation (including an equity financing in which any of the investors are affiliates of the Corporation, unless the right of first offer set forth in that certain Second Amended and Restated Investors' Rights Agreement dated on or about the Original Issue Date, as may be amended or restated from time to time, apply to such financing) that is not otherwise in the ordinary course of business (for purposes of this Section 3.3(l), "affiliate" shall mean a director or officer or holder of 10% or more of the outstanding Common Stock of the Corporation, including as "outstanding" shares of Common Stock issued or deemed issued pursuant to the Options and Convertible Securities).

3.4 Series C Protective Provisions. At any time when any shares of Series C Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly (including through any subsidiary of the Corporation) by amendment, merger, consolidation or otherwise, do or consent to do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of at least a majority of the then outstanding shares of Series C Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) as a single, separate class: (a) amend any of the rights, preferences or privileges of the Series C Preferred Stock so as to materially and adversely affect them in a different and disproportionate manner than the other series of any Preferred Stock, provided that for the avoidance of doubt, the authorization or issuance of any other series or class of capital stock ranking junior, pari passu, or senior to the Series C Preferred Stock with respect to one or more rights, preferences or privileges shall not, in and of itself, be deemed to constitute an amendment, alternation or change of the rights, preferences or privileges of the Series C Preferred Stock that materially and adversely affect the Series C Preferred Stock, or (b) increase or decrease the number of authorized shares of Series C Preferred Stock.

3.5 Series B Protective Provisions. At any time when any shares of Series B Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly (including through any subsidiary of the Corporation) by amendment, merger, consolidation or otherwise, do or consent to do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of at least a majority of the then outstanding shares of Series B Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) as a single, separate class: (a) amend any of the rights, preferences or privileges of the Series B Preferred Stock so as to materially and adversely affect them in a different and disproportionate manner than the other series of any Preferred Stock, provided that for the avoidance of doubt, the authorization or issuance of any other series or class of capital stock ranking junior, pari passu, or senior to the Series B Preferred Stock with respect to one or more rights, preferences or privileges shall not, in and of itself, be deemed to constitute an amendment, alternation or change of the rights, preferences or privileges of the Series B Preferred Stock that materially and adversely affect the Series B Preferred Stock, or (b) increase or decrease the number of authorized shares of Series B Preferred Stock.

3.6 Series A Protective Provisions. At any time when any shares of Series A Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly (including through any subsidiary of the Corporation) by amendment, merger, consolidation or otherwise, do or consent to do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) as a

single, separate class: (a) amend any of the rights, preferences or privileges of the Series A Preferred Stock so as to materially and adversely affect them in a different and disproportionate manner than the other series of any Preferred Stock, provided that for the avoidance of doubt, the authorization or issuance of any other series or class of capital stock ranking junior, pari passu, or senior to the Series A Preferred Stock with respect to one or more rights, preferences or privileges shall not, in and of itself, be deemed to constitute an amendment, alternation or change of the rights, preferences or privileges of the Series A Preferred Stock that materially and adversely affect the Series A Preferred Stock, or (b) increase or decrease the number of authorized shares of Series A Preferred Stock.

4. Optional Conversion.

The holders of the Series A Preferred Stock, the Series B Preferred Stock, and the Series C Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

4.1 Right to Convert.

4.1.1 Conversion Ratio. Each share of Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series A Original Issue Price by the Series A Conversion Price (as defined below) in effect at the time of conversion. The "**Series A Conversion Price**" shall initially be equal to $1.00. Such initial Series A Conversion Price, and the rate at which shares of Series A Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. Each share of Series B Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series B Original Issue Price by the Series B Conversion Price (as defined below) in effect at the time of conversion. The "**Series B Conversion Price**" shall initially be equal to $1.20. Such initial Series B Conversion Price, and the rate at which shares of Series B Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. Each share of Series C Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series C Original Issue Price by the Series C Conversion Price (as defined below) in effect at the time of conversion. The "**Series C Conversion Price**" shall initially be equal to $2.07. Such initial Series C Conversion Price, and the rate at which shares of Series C Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below..

4.1.2 Termination of Conversion Rights. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Series A Preferred Stock, the Series B Preferred Stock, or the Series C Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock, as the case may be, the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of the Preferred Stock represented by such certificate or certificates and, if applicable, any event on which such conversion is contingent. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such certificates (or lost certificate affidavit and agreement) and notice shall be the time of conversion (the "**Conversion Time**"), and the shares of Common Stock issuable upon conversion of the shares represented by such certificate shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time, (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof, and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, (ii) pay in cash such amount as provided in Section 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of Preferred Stock converted.

4.3.2 Reservation of Shares. The Corporation shall at all times when the Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to the Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Conversion Price of a series of Preferred Stock below the then par value of the shares of Common Stock issuable upon conversion of the shares of such series of Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of Common Stock at such adjusted Conversion Price.

4.3.3 Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Section 4.2 and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the applicable Conversion Price shall be made for any declared but unpaid dividends on the Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

4.4 Adjustments to Conversion Price for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(a) "**Option**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities (as defined below).

(b) "**Original Issue Date**" shall mean the date on which the first share of Series C Preferred Stock was issued.

(c) "**Convertible Securities**" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(d) "**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Section 4.4.3 below, deemed to be issued) by the Corporation after the Original Issue Date, other than the following shares of Common Stock, and shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (collectively "**Exempted Securities**"):

(i) shares of Common Stock, Options or Convertible Securities issued upon the conversion of Preferred Stock or as a dividend or distribution on Preferred Stock;

(ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Section 4.5, 4.6, 4.7 or 4.8 below;

(iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors;

(iv) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(v) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors, including the approval of a majority of the Preferred Directors;

(vi) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, marketing or other similar agreements or strategic partnerships approved by the Board of Directors, including the approval of a majority of the Preferred Directors; or

(vii) shares of Series C Preferred Stock issued pursuant to the Series C Convertible Preferred Stock Purchase Agreement, dated as of the date hereof, by and among the Company and the parties thereto.

4.4.2 No Adjustment of Conversion Price. No adjustment in the Series A Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least a majority of the then outstanding shares of Series A Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Series B Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least a majority of the then outstanding shares of Series B Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Series C Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least a majority of the then outstanding shares of Series C Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of

holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Conversion Price of any series of Preferred Stock pursuant to the terms of Section 4.4.4 below, are revised as a result of an amendment to such terms or if any other adjustment is made pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Price of such series of Preferred Stock computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to the Conversion Price of such series of Preferred Stock as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this Section 4.4.3(b) shall have the effect of increasing the Conversion Price of any series of Preferred Stock to an amount which exceeds the lower of (i) the Conversion Price of such series of Preferred Stock in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price of such series of Preferred Stock that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Conversion Price of any series of Preferred Stock pursuant to the terms of Section 4.4.4 below (either because the consideration per share (determined pursuant to Section 4.4.5 hereof) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Conversion Price of such series of Preferred Stock then in effect, or because such Option or Convertible Security was issued before the Original Issue Date), are revised after the Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible

Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Section 4.4.3(a) above) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Conversion Price of any series of Preferred Stock pursuant to the terms of Section 4.4.4 below, the Conversion Price of such series of Preferred Stock shall be readjusted to such Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Conversion Price of each series of Preferred Stock provided for in this Section 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Section 4.4.3). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Conversion Price of each series of Preferred Stock that would result under the terms of this Section 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to such Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 4.4.3), without consideration or for a consideration per share less than the Conversion Price of any series of Preferred Stock in effect immediately prior to such issue, then the Conversion Price of such series of Preferred Stock shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP2 = CP1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(a) "**CP2**" shall mean the Conversion Price of such series of Preferred Stock in effect immediately after such issue of Additional Shares of Common Stock;

(b) "**CP1**" shall mean the Conversion Price of such series of Preferred Stock in effect immediately prior to such issue of Additional Shares of Common Stock;

(c) "**A**" shall mean the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon

conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(d) "**B**" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to CP1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP1); and

(e) "**C**" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.5 Determination of Consideration. For purposes of this Section 4.4, the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property: Such consideration shall:

(i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing

(i) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of

such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.6 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price of any series of Preferred Stock pursuant to the terms of Section 4.4.4 above, and such issuance dates occur within a period of no more than ninety (90) days from the first such issuance to the final such issuance, then, upon the final such issuance, the Conversion Price of such series of Preferred Stock shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Original Issue Date effect a subdivision of the outstanding Common Stock, the Conversion Price of each series of Preferred Stock in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Conversion Price of each series of Preferred Stock in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Conversion Price of each series of Preferred Stock in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Conversion Price of such series of Preferred Stock then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing, (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price of such series of Preferred Stock shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price of such series of Preferred Stock shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of such series of Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of such series of Preferred Stock had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of each series of Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of such series of Preferred Stock had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Section 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not any series of Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Sections 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of such series of Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of the Common Stock issuable upon conversion of one share of such series of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of such series of Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Conversion Price of such series of Preferred Stock) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of such series of Preferred Stock.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price of any series of Preferred Stock pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than fifteen (15) days thereafter, compute such adjustment or readjustment in accordance

with the terms hereof and furnish to each holder of such series of Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which such series of Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of any series of Preferred Stock (but in any event not later than fifteen (15) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Conversion Price of such series of Preferred Stock then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of such series of Preferred Stock.

4.10 No Impairment. This Corporation will not, without the appropriate vote of the stockholders under the General Corporation Law or Section 3.3, by amendment of its Certificate of Incorporation or through any reorganization, recapitalization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by this Corporation, but will at all times in good faith assist in the carrying out of all the provisions of this Section 4 and in the taking of all such action as may be necessary or appropriate in order to protect the conversion rights of the holders of the Preferred Stock against impairment.

4.11 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of each series of Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, Deemed Liquidation Event, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of such series of Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, Deemed Liquidation Event, dissolution, liquidation or winding-up, and the amount per share and character of such exchange

applicable to such series of Preferred Stock and the Common Stock. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Trigger Events. Upon either (a) the date and time, or the occurrence of an event, specified by vote or written consent of the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock, voting or consenting together as a single class on an as-converted basis, or (b) the closing of the sale of shares of Common Stock to the public in a underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, on a national securities exchange registered with the Securities and Exchange Commission provided that the price of the Common Stock is greater than $2.277 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) and such offering results in at least $40 million of gross proceeds to the Corporation (such an event a “QPO”) (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the “Mandatory Conversion Time”), (i) all outstanding shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock shall

automatically be converted into shares of Common Stock, at the applicable then effective conversion rate and (ii) such shares may not be reissued by the Corporation.

5.2 Procedural Requirements. All holders of record of shares of Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice, and shall thereafter receive certificates for the number of shares of Common Stock to which such holder is entitled pursuant to this Section 5. At the Mandatory Conversion Time, all outstanding shares of Preferred Stock shall be deemed to have been converted into shares of Common Stock, which shall be deemed to be outstanding of record, and all rights with respect to the Preferred Stock so converted, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate, except only the rights of the holders thereof, upon surrender of their certificate or certificates (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the last sentence of this Section 5.2. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. As soon as practicable after the Mandatory Conversion Time and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, together with cash as provided in

Section 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted.

5.3 Effect of Mandatory Conversion. All shares of Preferred Stock shall, from and after the Mandatory Conversion Time, no longer be deemed to be outstanding and, notwithstanding the failure of the holder or holders thereof to surrender the certificates for such shares on or prior to such time, all rights with respect to such shares shall immediately cease and terminate at the Mandatory Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment of any dividends declared but unpaid thereon. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

C. UNDESIGNATED PREFERRED STOCK

The Board of Directors or any authorized committee thereof is expressly authorized, to the fullest extent permitted by law, to provide by resolution or resolutions for, out of the unissued shares of Undesignated Preferred Stock, the issuance of the shares of Undesignated Preferred Stock in one or more series of such stock, and by filing a certificate of designations pursuant to applicable law of the State of Delaware, to establish or change from time to time the number of shares of each such series, and to fix the designations, powers, including voting powers, full or limited, or no voting powers, preferences and the relative, participating, optional or other special rights of the shares of each series and any qualifications, limitations and restrictions thereof.

ARTICLE V

STOCKHOLDER ACTION

Effective from and after the mandatory conversion of all outstanding shares of Pre-IPO Preferred Stock pursuant to Section 5 of Part B of Article IV of this Certificate of Incorporation:

1. Action without Meeting. Any action required or permitted to be taken by the stockholders of the Corporation at any annual or special meeting of stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders and may not be taken or effected by a written consent of stockholders in lieu thereof.

2. Special Meetings. Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock, special meetings of the stockholders of the Corporation may be called only by the Board of Directors acting pursuant to a resolution approved by the affirmative vote of a majority of the Directors then in office, and special meetings of stockholders may not be called by any other person or persons. Only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders of the Corporation.

ARTICLE VI

DIRECTORS

A. Before and after the Mandatory Conversion Time:

1. General. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors except as otherwise provided herein or required by law.

B. Effective from and after the Mandatory Conversion Time:

1. Election of Directors. Election of Directors need not be by written ballot unless the By-laws of the Corporation (the "**By-laws**") shall so provide.

2. Number of Directors; Term of Office. The number of Directors of the Corporation shall be fixed solely and exclusively by resolution duly adopted from time to time by the Board of Directors. The Directors, other than those who may be elected by the holders of any series of Undesignated Preferred Stock, shall be classified, with respect to the term for which they severally hold office, into three classes. The initial Class I Directors of the Corporation shall be

Alexis Borisy and Nick Lydon; the initial Class II Directors of the Corporation shall be George Demetri; and the initial Class III Directors of the Corporation shall be Daniel Lynch and Jeffrey Albers. The initial Class I Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2016, the initial Class II Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2017, and the initial Class III Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2018. At each annual meeting of stockholders, Directors elected to succeed those Directors whose terms expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election. Notwithstanding the foregoing, the Directors elected to each class shall hold office until their successors are duly elected and qualified or until their earlier resignation, death or removal.

Notwithstanding the foregoing, whenever, pursuant to the provisions of Article IV of this Certificate, the holders of any one or more series of Undesignated Preferred Stock shall have the right, voting separately as a series or together with holders of other such series, to elect Directors at an annual or special meeting of stockholders, the election, term of office, filling of vacancies and other features of such directorships shall be governed by the terms of this Certificate and any certificate of designations applicable to such series.

3. Vacancies. Subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock to elect Directors and to fill vacancies in the Board of Directors relating thereto, any and all vacancies in the Board of Directors, however occurring, including, without limitation, by reason of an increase in the size of the Board of Directors, or the death, resignation, disqualification or removal of a Director, shall be filled solely and exclusively by the affirmative vote of a majority of the remaining Directors then in office, even if less than a quorum of the Board of Directors, and not by the stockholders. Any Director appointed in accordance with the preceding sentence shall hold office for the remainder of the full term of the class of Directors in which the new directorship was created or the vacancy occurred and until

such Director's successor shall have been duly elected and qualified or until his or her earlier resignation, death or removal. Subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock to elect Directors, when the number of Directors is increased or decreased, the Board of Directors shall, subject to Article VI.3 hereof, determine the class or classes to which the increased or decreased number of Directors shall be apportioned; provided, however, that no decrease in the number of Directors shall shorten the term of any incumbent Director. In the event of a vacancy in the Board of Directors, the remaining Directors, except as otherwise provided by law, shall exercise the powers of the full Board of Directors until the vacancy is filled.

4. Removal. Subject to the rights, if any, of any series of Undesignated Preferred Stock to elect Directors and to remove any Director whom the holders of any such series have the right to elect, any Director (including persons elected by Directors to fill vacancies in the Board of Directors) may be removed from office (i) only with cause and (ii) only by the affirmative vote of the holders of 75% or more of the outstanding shares of capital stock then entitled to vote at an election of Directors, voting together as a single class. At least forty-five (45) days prior to any annual or special meeting of stockholders at which it is proposed that any Director be removed from office, written notice of such proposed removal and the alleged grounds thereof shall be sent to the Director whose removal will be considered at the meeting.

ARTICLE VII

LIMITATION OF LIABILITY

A Director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a Director, except for liability (a) for any breach of the Director's duty of loyalty to the Corporation or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) under Section 174 of the DGCL or (d) for any transaction from which the Director derived an improper personal benefit. If the DGCL is amended after the effective date of this Certificate to authorize corporate action further eliminating or limiting the personal liability of Directors, then the liability of a Director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Any amendment, repeal or modification of this Article VII by either of (i) the stockholders of the Corporation or (ii) an amendment to the DGCL, shall not adversely affect any right or protection existing at the time of such amendment, repeal or modification with respect to any acts or omissions occurring before such amendment, repeal or modification of a person serving as a Director at the time of such amendment, repeal or modification.

ARTICLE VIII

EXCLUSIVE JURISDICTION OF DELAWARE COURTS

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the

Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or the Corporation's Certificate of Incorporation or By-laws, or (iv) any action asserting a claim against the Corporation governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article VIII.

ARTICLE IX

AMENDMENT OF BY-LAWS

1. Amendment by Directors. Except as otherwise provided by law, the By-laws of the Corporation may be amended or repealed by the Board of Directors by the affirmative vote of a majority of the Directors then in office.

2. Amendment by Stockholders. The By-laws of the Corporation may be amended or repealed at any annual meeting of stockholders, or special meeting of stockholders called for such purpose, by the affirmative vote of at least 75% of the outstanding shares of capital stock entitled to vote on such

amendment or repeal, voting together as a single class; provided, however, that if the Board of Directors recommends that stockholders approve such amendment or repeal at such meeting of stockholders, such amendment or repeal shall only require the affirmative vote of the majority of the outstanding shares of capital stock entitled to vote on such amendment or repeal, voting together as a single class.

ARTICLE X

AMENDMENT OF CERTIFICATE OF INCORPORATION

The Corporation reserves the right to amend or repeal this Certificate in the manner now or hereafter prescribed by statute and this Certificate, and all rights conferred upon stockholders herein are granted subject to this reservation. Whenever any vote of the holders of capital stock of the Corporation is required to amend or repeal any provision of this Certificate, and in addition to any other vote of holders of capital stock that is required by this Certificate or by law, such amendment or repeal shall require the affirmative vote of the majority of the outstanding shares of capital stock entitled to vote on such amendment or repeal, and the affirmative vote of the majority of the outstanding shares of each class entitled to vote thereon as a class, at a duly constituted meeting of stockholders called expressly for such purpose; provided, however, that the affirmative vote of not less than 75% of the outstanding shares of capital stock entitled to vote on such amendment or repeal, voting as a single class, and the affirmative vote of not less than 75% of the outstanding shares of each class entitled to vote thereon as a class, shall be required to amend or repeal any provision of Article V, Article VI, Article VII, Article VIII, Article IX or Article X of this Certificate.

[End of Text]

IN WITNESS WHEREOF, this Fourth Amended and Restated Certificate of Incorporation is executed as of this day of , 2015.

By: _____
Name: Jeffrey Albers
Title: Chief Executive Officer

[Signature Page to Fourth Amended and Restated Certificate of Incorporation]

FIFTH AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION

OF

BLUEPRINT MEDICINES CORPORATION

Blueprint Medicines Corporation, a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies as follows:

1. The name of the Corporation is Blueprint Medicines Corporation. The date of the filing of its original Certificate of Incorporation with the Secretary of State of the State of Delaware was October 14, 2008, under the name ImmunoCo, Inc. (the "**Original Certificate**"), as amended by a Certificate of Amendment dated May 21, 2010. An Amended and Restated Certificate of Incorporation of this Corporation was filed with the Delaware Secretary of State on April 4, 2011, as amended by a Certificate of Amendment dated May 24, 2013 and a Certificate of Amendment dated November 14, 2013. A Second Amended and Restated Certificate of Incorporation of this Corporation was filed with the Delaware Secretary of State on January 3, 2014, as amended by a Certificate of Amendment dated August 18, 2014 and a Certificate of Amendment dated November 3, 2014. A Third Amended and Restated Certificate of Incorporation of this corporation was filed with the Delaware Secretary of State on November 10, 2014. A Fourth Amended and Restated Certificate of Incorporation of this corporation was filed with the Delaware Secretary of State on , 2015.

2. This Fifth Amended and Restated Certificate of Incorporation (the "Certificate") amends and restates the provisions of the Fourth Amended and Restated Certificate of Incorporation, and was duly adopted in accordance with the provisions of Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware (the "DGCL").

3. The text of the Fourth Amended and Restated Certificate is hereby amended and restated in its entirety to provide as herein set forth in full.

ARTICLE I

The name of the Corporation is Blueprint Medicines Corporation

ARTICLE II

The address of the Corporation's registered office in the State of Delaware is c/o The Corporation Trust Company, 1209 Orange Street in the City of Wilmington, County of New Castle, 19801. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

ARTICLE IV

CAPITAL STOCK

The total number of shares of capital stock which the Corporation shall have authority to issue is 125,000,000, of which (i) 120,000,000 shares shall be a class designated as common stock, par value $0.001 per share (the "Common Stock"), and (ii) 5,000,000 shares shall be a class designated as undesignated preferred stock, par value $0.001 per share (the "Undesignated Preferred Stock").

Except as otherwise provided in any certificate of designations of any series of Undesignated Preferred Stock, the number of authorized shares of the class of Common Stock or Undesignated Preferred Stock may from time to time be increased or decreased (but not below the number of shares of such class outstanding) by the affirmative vote of the holders of a majority in voting power of the outstanding shares of capital stock of the Corporation irrespective of the provisions of Section 242(b)(2) of the DGCL.

The powers, preferences and rights of, and the qualifications, limitations and restrictions upon, each class or series of stock shall be determined in accordance with, or as set forth below in, this Article IV.

A. COMMON STOCK

Subject to all the rights, powers and preferences of the Undesignated Preferred Stock and except as provided by law or in this Certificate (or in any certificate of designations of any series of Undesignated Preferred Stock):

(a) the holders of the Common Stock shall have the exclusive right to vote for the election of directors of the Corporation (the "Directors") and on all other matters requiring stockholder action, each outstanding share entitling the holder thereof to one vote on each matter properly submitted to the stockholders of the Corporation for their vote; provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Certificate (or on any amendment to a certificate of designations of any series of Undesignated Preferred Stock) that alters or changes the powers, preferences, rights or other terms of one or more outstanding series of Undesignated Preferred Stock if the holders of such affected series of Undesignated Preferred Stock are entitled to vote, either separately or together with the holders of one or more other such series, on such amendment pursuant to this Certificate (or pursuant to a certificate of designations of any series of Undesignated Preferred Stock) or pursuant to the DGCL;

(b) dividends may be declared and paid or set apart for payment upon the Common Stock out of any assets or funds of the Corporation legally available for the payment of dividends, but only when and as declared by the Board of Directors or any authorized committee thereof; and

(c) upon the voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the net assets of the Corporation shall be distributed pro rata to the holders of the Common Stock.

B. UNDESIGNATED PREFERRED STOCK

The Board of Directors or any authorized committee thereof is expressly authorized, to the fullest extent permitted by law, to provide by resolution or resolutions for, out of the unissued shares of Undesignated Preferred Stock, the issuance of the shares of Undesignated Preferred Stock in one or more series of such stock, and by filing a certificate of designations pursuant to applicable law of the State of Delaware, to establish or change from time to time the number of shares of each such series, and to fix the designations, powers, including voting powers, full or limited, or no voting powers, preferences and the relative, participating, optional or other special rights of the shares of each series and any qualifications, limitations and restrictions thereof.

ARTICLE V

STOCKHOLDER ACTION

1. Action without Meeting. Any action required or permitted to be taken by the stockholders of the Corporation at any annual or special meeting of stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders and may not be taken or effected by a written consent of stockholders in lieu thereof.

2. Special Meetings. Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock, special meetings of the stockholders of the Corporation may be called only by the Board of Directors acting pursuant to a resolution approved by the affirmative vote of a majority of the Directors then in office, and special meetings of stockholders may not be called by any other person or persons. Only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders of the Corporation.

ARTICLE VI

DIRECTORS

1. General. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors except as otherwise provided herein or required by law.

2. Election of Directors. Election of Directors need not be by written ballot unless the By-laws of the Corporation (the "By-laws") shall so provide.

3. Number of Directors; Term of Office. The number of Directors of the Corporation shall be fixed solely and exclusively by resolution duly adopted from time to time by the Board of Directors. The Directors, other than those who may be elected by the holders of any series of Undesignated Preferred Stock, shall be classified, with respect to the term for which they severally hold office, into three classes. The initial Class I Directors of the Corporation shall be Alexis Borisy and Nick Lydon; the initial Class II Directors of the Corporation shall be George Demetri and Charlie Rowland; and the initial Class III Directors of the Corporation shall be Daniel Lynch and Jeffrey Albers. The initial Class I Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2016, the initial Class II Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2017, and the initial Class III Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2018. At each annual meeting of stockholders, Directors elected to succeed those Directors whose terms expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election. Notwithstanding the foregoing, the Directors elected to each class shall hold office until their successors are duly elected and qualified or until their earlier resignation, death or removal.

Notwithstanding the foregoing, whenever, pursuant to the provisions of Article IV of this Certificate, the holders of any one or more series of Undesignated Preferred Stock shall have the right, voting separately as a series or together with holders of other such series, to elect Directors at an annual or special meeting of stockholders, the election, term of office, filling of vacancies and other features of such directorships shall be governed by the terms of this Certificate and any certificate of designations applicable to such series.

4. Vacancies. Subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock to elect Directors and to fill vacancies in the Board of Directors relating thereto, any and all vacancies in the Board of Directors, however occurring, including, without limitation, by reason of an increase in the size of the Board of Directors, or the death, resignation, disqualification or removal of a Director, shall be filled solely and exclusively by the affirmative vote of a majority of the remaining Directors then in office, even if less than a quorum of the Board of Directors, and not by the stockholders. Any Director appointed in accordance with the preceding sentence shall hold office for the remainder of the full term of the

class of Directors in which the new directorship was created or the vacancy occurred and until such Director's successor shall have been duly elected and qualified or until his or her earlier resignation, death or removal. Subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock to elect Directors, when the number of Directors is increased or decreased, the Board of Directors shall, subject to Article VI.3 hereof, determine the class or classes to which the increased or decreased number of Directors shall be apportioned; provided, however, that no decrease in the number of Directors shall shorten the term of any incumbent Director. In the event of a vacancy in the Board of Directors, the remaining Directors, except as otherwise provided by law, shall exercise the powers of the full Board of Directors until the vacancy is filled.

5. Removal. Subject to the rights, if any, of any series of Undesignated Preferred Stock to elect Directors and to remove any Director whom the holders of any such series have the right to elect, any Director (including persons elected by Directors to fill vacancies in the Board of Directors) may be removed from office (i) only with cause and (ii) only by the affirmative vote of the holders of 75% or more of the outstanding shares of capital stock then entitled to vote at an election of Directors, voting together as a single class. At least forty-five (45) days prior to any annual or special meeting of stockholders at which it is

proposed that any Director be removed from office, written notice of such proposed removal and the alleged grounds thereof shall be sent to the Director whose removal will be considered at the meeting.

ARTICLE VII

LIMITATION OF LIABILITY

A Director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a Director, except for liability (a) for any breach of the Director's duty of loyalty to the Corporation or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) under Section 174 of the DGCL or (d) for any transaction from which the Director derived an improper personal benefit. If the DGCL is amended after the effective date of this Certificate to authorize corporate action further eliminating or limiting the personal liability of Directors, then the liability of a Director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Any amendment, repeal or modification of this Article VII by either of (i) the stockholders of the Corporation or (ii) an amendment to the DGCL, shall not adversely affect any right or protection existing at the time of such amendment, repeal or modification with respect to any acts or omissions occurring before such amendment, repeal or modification of a person serving as a Director at the time of such amendment, repeal or modification.

ARTICLE VIII

EXCLUSIVE JURISDICTION OF DELAWARE COURTS

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or the Corporation's Certificate of Incorporation or By-laws, or (iv) any action asserting a claim against the Corporation governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article VIII.

ARTICLE IX

AMENDMENT OF BY-LAWS

1. Amendment by Directors. Except as otherwise provided by law, the By-laws of the Corporation may be amended or repealed by the Board of Directors by the affirmative vote of a majority of the Directors then in office.

2. Amendment by Stockholders. The By-laws of the Corporation may be amended or repealed at any annual meeting of stockholders, or special meeting of stockholders called for such purpose, by the affirmative vote of at least 75% of the outstanding shares of capital stock entitled to vote on such amendment or repeal, voting together as a single class; provided, however, that if the Board of Directors recommends that stockholders approve such amendment or repeal at such meeting of stockholders, such amendment or repeal shall only require the affirmative vote of the majority of the outstanding shares of capital stock entitled to vote on such amendment or repeal, voting together as a single class.

ARTICLE X

AMENDMENT OF CERTIFICATE OF INCORPORATION

The Corporation reserves the right to amend or repeal this Certificate in the manner now or hereafter prescribed by statute and this Certificate, and all rights conferred upon stockholders herein are granted subject to this reservation. Whenever any vote of the holders of capital stock of the Corporation is required to amend or repeal any provision of this Certificate, and in addition to any other vote of holders of capital stock that is required by this Certificate or by law, such amendment or repeal shall require the affirmative vote of the majority of the outstanding shares of capital stock entitled to vote on such amendment or repeal, and the affirmative vote of the majority of the outstanding shares of each class entitled to vote thereon as a class, at a duly constituted meeting of stockholders called expressly for such purpose; provided, however, that the affirmative vote of not less than 75% of the outstanding shares of capital stock entitled to vote on such amendment or repeal, voting together as a single class, and the affirmative vote of not less than 75% of the outstanding shares of each class entitled to vote thereon as a class, shall be required to amend or repeal any provision of Article V, Article VI, Article VII, Article VIII, Article IX or Article X of this Certificate.

[End of Text]

IN WITNESS WHEREOF, this Fifth Amended and Restated Certificate of Incorporation is executed as of this day of , 2015.

By: _____
Name: Jeffrey Albers
Title: Chief Executive Officer

[Signature Page to Fifth Amended and Restated Certificate of Incorporation]

AMENDED AND RESTATED

BYLAWS

OF

BLUEPRINT MEDICINES CORPORATION

(the "Corporation")

ARTICLE I

Stockholders

SECTION 1. Annual Meeting. The annual meeting of stockholders (any such meeting being referred to in these Bylaws as an "Annual Meeting") shall be held at the hour, date and place within or without the United States which is fixed by the Corporation's Board of Directors (the "Board of Directors"), which time, date and place may subsequently be changed at any time by vote of the Board of Directors. If no Annual Meeting has been held for a period of thirteen (13) months after the Corporation's last Annual Meeting, a special meeting in lieu thereof may be held, and such special meeting shall have, for the purposes of these Bylaws or otherwise, all the force and effect of an Annual Meeting. Any and all references hereafter in these Bylaws to an Annual Meeting or Annual Meetings also shall be deemed to refer to any special meeting(s) in lieu thereof.

SECTION 2. Notice of Stockholder Business and Nominations.

(a) Annual Meetings of Stockholders.

(1) Nominations of persons for election to the Board of Directors and the proposal of other business to be considered by the stockholders may be brought before an Annual Meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice provided for in these Bylaws, who is entitled to vote at the meeting, who is present (in person or by proxy) at the meeting and who complies with the notice procedures set forth in these Bylaws as to such nomination or business. For the avoidance of doubt, the foregoing clause (ii) shall be the exclusive means for a stockholder to bring nominations or business properly before an Annual Meeting (other than matters properly brought under Rule 14a-8 or Rule 14a-11 (or any successor rules) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), and such stockholder must comply with the notice and other procedures set forth in Article I, Section 2(a)(2) and (3) of these Bylaws to bring such nominations or business properly before an Annual Meeting. In addition to the other requirements set forth in these Bylaws, for any proposal of business to be considered at an Annual Meeting, it must be a proper subject for action by stockholders of the Corporation under Delaware law.

(2) For nominations or other business to be properly brought before an Annual Meeting by a stockholder pursuant to clause (ii) of Article I, Section 2(a)(1) of these Bylaws, the stockholder must (i) have given Timely Notice (as defined below) thereof in writing to the Secretary of the Corporation, (ii) have provided any updates or supplements to such notice at the times and in the forms required by these Bylaws and (iii) together with the beneficial owner(s), if any, on whose behalf the nomination or business proposal is made, have acted in accordance with the representations set forth in the Solicitation Statement (as defined below) required by these Bylaws. To be timely, a stockholder's written notice shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90^{th}) day nor earlier than the close of business on the one hundred twentieth (120^{th}) day prior to the one-year anniversary of the preceding year's Annual Meeting; provided, however, that in the event the Annual Meeting is first convened more than thirty (30) days before or more than sixty (60) days after such anniversary date, or if no Annual Meeting were held in the preceding year, notice by the stockholder to be timely must be received by the Secretary of the Corporation not later than the close of business on the later of the ninetieth (90^{th}) day prior to the scheduled date of such Annual Meeting or the tenth (10^{th}) day following the day on which public announcement of the date of such meeting is first made (such notice within such time periods shall be referred to as "Timely Notice"). Notwithstanding anything to the contrary provided herein, for the first Annual Meeting following the initial public offering of common stock of the Corporation, a stockholder's notice shall be timely if received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the later of the ninetieth (90^{th}) day prior to the scheduled date of such Annual Meeting or the tenth (10^{th}) day following the day on which public announcement of the date of such Annual Meeting is first made or sent by the Corporation. Such stockholder's Timely Notice shall set forth:

(A) as to each person whom the stockholder proposes to nominate for election or reelection as a director, all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Exchange Act (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected);

(B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, and any material interest in such business of each Proposing Person (as defined below);

(C) (i) the name and address of the stockholder giving the notice, as they appear on the Corporation's books, and the names and addresses of the other Proposing Persons (if any) and (ii) as to each Proposing Person, the following information: (a) the class or series and number of all shares of capital stock of the Corporation which are, directly or indirectly, owned beneficially or of record by such Proposing Person or any of its affiliates or associates (as such terms are defined in Rule 12b-2 promulgated under the Exchange Act), including any shares of any class or series of capital stock of the Corporation as to which such

Proposing Person or any of its affiliates or associates has a right to acquire beneficial ownership at any time in the future, (b) all Synthetic Equity Interests (as defined below) in which such Proposing Person or any of its affiliates or associates, directly or indirectly, holds an interest including a description of the material terms of each such Synthetic Equity Interest, including without limitation, identification of the counterparty to each such Synthetic Equity Interest and disclosure, for each such Synthetic Equity Interest, as to (x) whether or not such Synthetic Equity Interest conveys any voting rights, directly or indirectly, in such shares to such Proposing Person, (y) whether or not such Synthetic Equity Interest is required to be, or is capable of being, settled through delivery of such shares and (z) whether or not such Proposing Person and/or, to the extent known, the counterparty to such Synthetic Equity Interest has entered into other transactions that hedge or mitigate the economic effect of such Synthetic Equity Interest, (c) any proxy (other than a revocable proxy given in response to a public proxy solicitation made pursuant to, and in accordance with, the Exchange Act), agreement, arrangement, understanding or relationship pursuant to which such Proposing Person has or shares a right to, directly or indirectly, vote any shares of any class or series of capital stock of the Corporation, (d) any rights to dividends or other distributions on the shares of any class or series of capital stock of the Corporation, directly or indirectly, owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, and (e) any performance-related fees (other than an asset based fee) that such Proposing Person, directly or indirectly, is entitled to based on any increase or decrease in the value of shares of any class or series of capital stock of the Corporation or any Synthetic Equity Interests (the disclosures to be made pursuant to the foregoing clauses (a) through (e) are referred to, collectively, as "Material Ownership Interests") and (iii) a description of the material terms of all agreements, arrangements or understandings (whether or not in writing) entered into by any Proposing Person or any of its affiliates or associates with any other person for the purpose of acquiring, holding, disposing or voting of any shares of any class or series of capital stock of the Corporation;

(D) (i) a description of all agreements, arrangements or understandings by and among any of the Proposing Persons, or by and among any Proposing Persons and any other person (including with any proposed nominee(s)), pertaining to the nomination(s) or other business proposed to be brought before the meeting of stockholders (which description shall identify the name of each other person who is party to such an agreement, arrangement or understanding), and (ii) identification of the names and addresses of other stockholders (including beneficial owners) known by any of the Proposing Persons to support such nominations or other business proposal(s), and to the extent known the class and number of all shares of the Corporation's capital stock owned beneficially or of record by such other stockholder(s) or other beneficial owner(s); and

(E) a statement whether or not the stockholder giving the notice and/or the other Proposing Person(s), if any, will deliver a proxy statement and form of proxy to holders of, in the case of a business proposal, at least the percentage of

voting power of all of the shares of capital stock of the Corporation required under applicable law to approve the proposal or, in the case of a nomination or nominations, at least the percentage of voting power of all of the shares of capital stock of the Corporation reasonably believed by such Proposing Person to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder (such statement, the "Solicitation Statement").

For purposes of this Article I of these Bylaws, the term "Proposing Person" shall mean the following persons: (i) the stockholder of record providing the notice of nominations or business proposed to be brought before a stockholders' meeting, and (ii) the beneficial owner(s), if different, on whose behalf the nominations or business proposed to be brought before a stockholders' meeting is made. For purposes of this Section 2 of Article I of these Bylaws, the term "Synthetic Equity Interest" shall mean any transaction, agreement or arrangement (or series of transactions, agreements or arrangements), including, without limitation, any derivative, swap, hedge, repurchase or so-called "stock borrowing" agreement or arrangement, the purpose or effect of which is to, directly or indirectly: (a) give a person or entity economic benefit and/or risk similar to ownership of shares of any class or series of capital stock of the Corporation, in whole or in part, including due to the fact that such transaction, agreement or arrangement provides, directly or indirectly, the opportunity to profit or avoid a loss from any increase or decrease in the value of any shares of any class or series of capital stock of the Corporation, (b) mitigate loss to, reduce the economic risk of or manage the risk of share price changes for, any person or entity with respect to any shares of any class or series of capital stock of the Corporation, (c) otherwise provide in any manner the opportunity to profit or avoid a loss from any decrease in the value of any shares of any class or series of capital stock of the Corporation, or (d) increase or decrease the voting power of any person or entity with respect to any shares of any class or series of capital stock of the Corporation.

(3) A stockholder providing Timely Notice of nominations or business proposed to be brought before an Annual Meeting shall further update and supplement such notice, if necessary, so that the information (including, without limitation, the Material Ownership Interests information) provided or required to be provided in such notice pursuant to these Bylaws shall be true and correct as of the record date for the meeting and as of the date that is ten (10) business days prior to such Annual Meeting, and such update and supplement shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the fifth (5^{th}) business day after the record date for the Annual Meeting (in the case of the update and supplement required to be made as of the record date), and not later than the close of business on the eighth (8^{th}) business day prior to the date of the Annual Meeting (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting).

(4) Notwithstanding anything in the second sentence of Article I, Section 2(a)(2) of these Bylaws to the contrary, in the event that the number of directors to be elected to the Board of Directors is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of

Directors made by the Corporation at least ten (10) days before the last day a stockholder may deliver a notice of nomination in accordance with the second sentence of Article I, Section 2(a)(2), a stockholder's notice required by these Bylaws shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be received by the Secretary of the Corporation not later than the close of business on the tenth (10^{th}) day following the day on which such public announcement is first made by the Corporation.

(b) General.

(1) Only such persons who are nominated in accordance with the provisions of these Bylaws or in accordance with Rule 14a-11 under the Exchange Act shall be eligible for election and to serve as directors and only such business shall be conducted at an Annual Meeting as shall have been brought before the meeting in accordance with the provisions of these Bylaws or in accordance with Rule 14a-8 under the Exchange Act. The Board of Directors or a designated committee thereof shall have the power to determine whether a nomination or any business proposed to be brought before the

meeting was made in accordance with the provisions of these Bylaws. If neither the Board of Directors nor such designated committee makes a determination as to whether any stockholder proposal or nomination was made in accordance with the provisions of these Bylaws, the presiding officer of the Annual Meeting shall have the power and duty to determine whether the stockholder proposal or nomination was made in accordance with the provisions of these Bylaws. If the Board of Directors or a designated committee thereof or the presiding officer, as applicable, determines that any stockholder proposal or nomination was not made in accordance with the provisions of these Bylaws, such proposal or nomination shall be disregarded and shall not be presented for action at the Annual Meeting.

(2) Except as otherwise required by law, nothing in this Article I, Section 2 shall obligate the Corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the Corporation or the Board of Directors information with respect to any nominee for director or any other matter of business submitted by a stockholder.

(3) Notwithstanding the foregoing provisions of this Article I, Section 2, if the nominating or proposing stockholder (or a qualified representative of the stockholder) does not appear at the Annual Meeting to present a nomination or any business, such nomination or business shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Article I, Section 2, to be considered a qualified representative of the proposing stockholder, a person must be authorized by a written instrument executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such written instrument or electronic transmission, or a reliable reproduction of the written instrument or electronic transmission, to the presiding officer at the meeting of stockholders.

(4) For purposes of these Bylaws, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(5) Notwithstanding the foregoing provisions of these Bylaws, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in these Bylaws. Nothing in these Bylaws shall be deemed to affect any rights of (i) stockholders to have nominations or proposals included in the Corporation's proxy statement pursuant to Rule 14a-8 or Rule 14a-11 (or any successor rules), as applicable, under the Exchange Act and, to the extent required by such rule, have such nominations or proposals considered and voted on at an Annual Meeting or (ii) the holders of any series of Undesignated Preferred Stock to elect directors under specified circumstances.

SECTION 3. Special Meetings. Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock, special meetings of the stockholders of the Corporation may be called only by the Board of Directors acting pursuant to a resolution approved by the affirmative vote of a majority of the Directors then in office. The Board of Directors may postpone or reschedule any previously scheduled special meeting of stockholders. Only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders of the Corporation. Nominations of persons for election to the Board of Directors and stockholder proposals of other business shall not be brought before a special meeting of stockholders to be considered by the stockholders unless such special meeting is held in lieu of an annual meeting of stockholders in accordance with Article I, Section 1 of these Bylaws, in which case such special meeting in lieu thereof shall be deemed an Annual Meeting for purposes of these Bylaws and the provisions of Article I, Section 2 of these Bylaws shall govern such special meeting.

SECTION 4. Notice of Meetings; Adjournments.

(a) A notice of each Annual Meeting stating the hour, date and place, if any, of such Annual Meeting and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, shall be given not less than ten (10) days nor more than sixty (60) days before the Annual Meeting, to each stockholder entitled to vote thereat by delivering such notice to such stockholder or by mailing it, postage prepaid, addressed to such stockholder at the address of such stockholder as it appears on the Corporation's stock transfer books. Without limiting the manner by which notice may otherwise be given to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the General Corporation Law of the State of Delaware ("DGCL").

(b) Notice of all special meetings of stockholders shall be given in the same manner as provided for Annual Meetings, except that the notice of all special meetings shall state the purpose or purposes for which the meeting has been called.

(c) Notice of an Annual Meeting or special meeting of stockholders need not be given to a stockholder if a waiver of notice is executed, or waiver of notice by electronic transmission is provided, before or after such meeting by such stockholder or if such stockholder attends such meeting, unless such attendance is for the express purpose of objecting at the beginning of the meeting to the transaction of any business because the meeting was not lawfully called or convened.

(d) The Board of Directors may postpone and reschedule any previously scheduled Annual Meeting or special meeting of stockholders and any record date with respect thereto, regardless of whether any notice or public disclosure with respect to any such meeting has been sent or made pursuant to Section 2 of this Article I of these Bylaws or otherwise. In no event shall the public announcement of an adjournment, postponement or rescheduling of any previously scheduled meeting of stockholders commence a new time period for the giving of a stockholder's notice under this Article I of these Bylaws.

(e) When any meeting is convened, the presiding officer may adjourn the meeting if (i) no quorum is present for the transaction of business, (ii) the Board of Directors determines that adjournment is necessary or appropriate to enable the stockholders to consider fully information which the Board of Directors determines has not been made sufficiently or timely available to stockholders, or (iii) the Board of Directors determines that adjournment is otherwise in the best interests of the Corporation. When any Annual Meeting or special meeting of stockholders is adjourned to another hour, date or place, notice need not be given of the adjourned meeting other than an announcement at the meeting at which the adjournment is taken of the hour, date and place, if any, to which the meeting is adjourned and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting; provided, however, that if the adjournment is for more than thirty (30) days from the meeting date, or if after the adjournment a new record date is fixed for the adjourned meeting, notice of the adjourned meeting and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting shall be given to each stockholder of record entitled to vote thereat and each

stockholder who, by law or under the Certificate of Incorporation of the Corporation (as the same may hereafter be amended and/or restated, the "Certificate") or these Bylaws, is entitled to such notice.

SECTION 5. Quorum. A majority of the shares entitled to vote, present in person or represented by proxy, shall constitute a quorum at any meeting of stockholders. If less than a quorum is present at a meeting, the holders of voting stock representing a majority of the voting power present at the meeting or the presiding officer may adjourn the meeting from time to time, and the meeting may be held as adjourned without further notice, except as provided in Section 4 of this Article I. At such adjourned meeting at which a quorum is present, any business may be transacted which might have been transacted at the meeting as originally noticed. The stockholders present at a duly constituted meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

SECTION 6. Voting and Proxies. Stockholders shall have one vote for each share of stock entitled to vote owned by them of record according to the stock ledger of the Corporation as of the record date, unless otherwise provided by law or by the Certificate. Stockholders may vote either (i) in person, (ii) by written proxy or (iii) by a transmission permitted by Section 212(c) of the DGCL. Any copy, facsimile telecommunication or other reliable reproduction of the writing or transmission permitted by Section 212(c) of the DGCL may be substituted for or used in lieu of the original writing or transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile telecommunication or other reproduction shall be a complete reproduction of the entire original writing or transmission. Proxies shall be filed in accordance with the procedures established for the meeting of stockholders. Except as otherwise limited therein or as otherwise provided by law, proxies authorizing a person to vote at a specific meeting shall entitle the persons authorized thereby to vote at any adjournment of such meeting, but they shall not be valid after final adjournment of such meeting. A proxy with respect to stock held in the name of two or more persons shall be valid if executed by or on behalf of any one of them unless at or prior to the exercise of the proxy the Corporation receives a specific written notice to the contrary from any one of them.

SECTION 7. Action at Meeting. When a quorum is present at any meeting of stockholders, any matter before any such meeting (other than an election of a director or directors) shall be decided by a majority of the votes properly cast for and against such matter, except where a larger vote is required by law, by the Certificate or by these Bylaws. Any election of directors by stockholders shall be determined by a plurality of the votes properly cast on the election of directors.

SECTION 8. Stockholder Lists. The Secretary or an Assistant Secretary (or the Corporation's transfer agent or other person authorized by these Bylaws or by law) shall prepare and make, at least ten (10) days before every Annual Meeting or special meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for a period of at least ten (10) days prior to the meeting in the manner provided by law. The list shall also be open to the examination of any stockholder during the whole time of the meeting as provided by law.

SECTION 9. Presiding Officer. The Board of Directors shall designate a representative to preside over all Annual Meetings or special meetings of stockholders, provided that if the Board of Directors does not so designate such a presiding officer, then the Chairperson of the Board, if one is elected, shall preside over such meetings. If the Board of Directors does not so designate such a presiding officer and there is no Chairperson of the Board or the Chairperson of the Board is unable to so preside or is absent, then the Chief Executive Officer, if one is elected, shall preside over such meetings, provided further that if there is no Chief Executive Officer or the Chief Executive Officer is unable to so preside or is absent, then the President shall preside over such meetings. The presiding officer at any Annual Meeting or special meeting of stockholders shall have the power, among other things, to adjourn such meeting at any time and

from time to time, subject to Sections 4 and 5 of this Article I. The order of business and all other matters of procedure at any meeting of the stockholders shall be determined by the presiding officer.

SECTION 10. Inspectors of Elections. The Corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the presiding officer shall appoint one or more inspectors to act at the meeting. Any inspector may, but need not, be an officer, employee or agent of the Corporation. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability. The inspectors shall perform such duties as are required by the DGCL, including the counting of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of the duties of the inspectors. The presiding officer may review all determinations made by the inspectors, and in so doing the presiding officer shall be entitled to exercise his or her sole judgment and discretion and he or she shall not be bound by any determinations made by the inspectors. All determinations by the inspectors and, if applicable, the presiding officer, shall be subject to further review by any court of competent jurisdiction.

ARTICLE II

Directors

SECTION 1. Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors except as otherwise provided by the Certificate or required by law.

SECTION 2. Number and Terms. The number of directors of the Corporation shall be fixed solely and exclusively by resolution duly adopted from time to time by the Board of Directors. The directors shall hold office in the manner provided in the Certificate.

SECTION 3. Qualification. No director need be a stockholder of the Corporation.

SECTION 4. Vacancies. Vacancies in the Board of Directors shall be filled in the manner provided in the Certificate.

SECTION 5. Removal. Directors may be removed from office only in the manner provided in the Certificate.

SECTION 6. Resignation. A director may resign at any time by giving written notice to the Chairperson of the Board, if one is elected, the President or the Secretary. A resignation shall be effective upon receipt, unless the resignation otherwise provides.

SECTION 7. Regular Meetings. The regular annual meeting of the Board of Directors shall be held, without notice other than this Section 7, on the same date and at the same place as the Annual Meeting following the close of such meeting of stockholders. Other regular meetings of the Board of Directors may be held at such hour, date and place as the Board of Directors may by resolution from time to time determine and publicize by means of reasonable notice given to any director who is not present at the meeting at which such resolution is adopted.

SECTION 8. Special Meetings. Special meetings of the Board of Directors may be called, orally or in writing, by or at the request of a majority of the directors, the Chairperson of the Board, if one is elected, or the President. The person calling any such special meeting of the Board of Directors may fix the hour, date and place thereof.

SECTION 9. Notice of Meetings. Notice of the hour, date and place of all special meetings of the Board of Directors shall be given to each director by the Secretary or an Assistant Secretary, or in case of the death, absence, incapacity or refusal of such persons, by the Chairperson of the Board, if one is elected, or the President or such other officer designated by the Chairperson of the Board, if one is elected, or the President. Notice of any special meeting of the Board of Directors shall be given to each director in person, by telephone, or by facsimile, electronic mail or other form of electronic communication, sent to his or her business or home address, at least twenty-four (24) hours in advance of the meeting, or by written notice mailed to his or her business or home address, at least forty-eight (48) hours in advance of the meeting. Such notice shall be deemed to be delivered when hand-delivered to such address, read to such director by telephone, deposited in the mail so addressed, with postage thereon prepaid if mailed, dispatched or transmitted if sent by facsimile transmission or by electronic mail or other form of electronic communications. A written waiver of notice signed before or after a meeting by a director and filed with the records of the meeting shall be deemed to be equivalent to notice of the meeting. The attendance of a director at a meeting shall constitute a waiver of notice of such meeting, except where a director attends a meeting for the express purpose of objecting at the beginning of the meeting to the transaction of any business because such meeting is not lawfully called or convened. Except as otherwise required by law, by the Certificate or by these Bylaws, neither the business to be transacted at, nor the purpose of, any meeting of the Board of Directors need be specified in the notice or waiver of notice of such meeting.

SECTION 10. Quorum. At any meeting of the Board of Directors, a majority of the total number of directors shall constitute a quorum for the transaction of business, but if less than a quorum is present at a meeting, a majority of the directors present may adjourn the meeting from time to time, and the meeting may be held as adjourned without further notice. Any business which might have been transacted at the meeting as originally noticed may be transacted at such adjourned meeting at which a quorum is present. For purposes of this section, the total number of directors includes any unfilled vacancies on the Board of Directors.

SECTION 11. Action at Meeting. At any meeting of the Board of Directors at which a quorum is present, the vote of a majority of the directors present shall constitute action by the Board of Directors, unless otherwise required by law, by the Certificate or by these Bylaws.

SECTION 12. Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors may be taken without a meeting if all members of the Board of Directors consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the records of the meetings of the Board of Directors. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. Such consent shall be treated as a resolution of the Board of Directors for all purposes.

SECTION 13. Manner of Participation. Directors may participate in meetings of the Board of Directors by means of conference telephone or other communications equipment by means of which all directors participating in the meeting can hear each other, and participation in a meeting in accordance herewith shall constitute presence in person at such meeting for purposes of these Bylaws.

SECTION 14. Presiding Director. The Board of Directors shall designate a representative to preside over all meetings of the Board of Directors, provided that if the Board of Directors does not so designate such a presiding director or such designated presiding director is unable to so preside or is absent, then the Chairperson of the Board, if one is elected, shall preside over all meetings of the Board of Directors. If both the designated presiding director, if one is so designated, and the Chairperson of the Board, if one is elected, are unable to preside or are absent, the Board of Directors shall designate an alternate representative to preside over a meeting of the Board of Directors.

SECTION 15. Committees. The Board of Directors, by vote of a majority of the directors then in office, may elect one or more committees, including, without limitation, a Compensation Committee, a Nominating and Corporate Governance Committee and an Audit Committee, and may delegate thereto some or all of its powers except those which by law, by the Certificate or by these Bylaws may not be delegated. Except as the Board of Directors may otherwise determine, any such committee may make rules for the conduct of its business, but unless otherwise provided by the Board of Directors or in such rules, its business shall be conducted so far as possible in the same manner as is provided by these Bylaws for the Board of Directors. All members of such committees shall hold such offices at the pleasure of the Board of Directors. The Board of Directors may abolish any such committee at any time. Any committee to which the Board of Directors delegates any of its powers or duties shall keep records of its meetings and shall report its action to the Board of Directors.

SECTION 16. Compensation of Directors. Directors shall receive such compensation for their services as shall be determined by a majority of the Board of Directors, or a designated committee thereof, provided that directors who are serving the Corporation as employees and who receive compensation for their services as such, shall not receive any salary or other compensation for their services as directors of the Corporation.

ARTICLE III

Officers

SECTION 1. Enumeration. The officers of the Corporation shall consist of a President, a Treasurer, a Secretary and such other officers, including, without limitation, a Chairperson of the Board of Directors, a Chief Executive Officer and one or more Vice Presidents (including Executive Vice Presidents or Senior Vice Presidents), Assistant Vice Presidents, Assistant Treasurers and Assistant Secretaries, as the Board of Directors may determine.

SECTION 2. Election. At the regular annual meeting of the Board of Directors following the Annual Meeting, the Board of Directors shall elect the President, the Treasurer and the Secretary. Other officers may be elected by the Board of Directors at such regular annual meeting of the Board of Directors or at any other regular or special meeting.

SECTION 3. Qualification. No officer need be a stockholder or a director. Any person may occupy more than one office of the Corporation at any time.

SECTION 4. Tenure. Except as otherwise provided by the Certificate or by these Bylaws, each of the officers of the Corporation shall hold office until the regular annual meeting of the Board of Directors following the next Annual Meeting and until his or her successor is elected and qualified or until his or her earlier resignation or removal.

SECTION 5. Resignation. Any officer may resign by delivering his or her written resignation to the Corporation addressed to the President or the Secretary, and such resignation shall be effective upon receipt, unless the resignation otherwise provides.

SECTION 6. Removal. Except as otherwise provided by law, the Board of Directors may remove any officer with or without cause by the affirmative vote of a majority of the directors then in office.

SECTION 7. Absence or Disability. In the event of the absence or disability of any officer, the Board of Directors may designate another officer to act temporarily in place of such absent or disabled officer.

SECTION 8. Vacancies. Any vacancy in any office may be filled for the unexpired portion of the term by the Board of Directors.

SECTION 9. President. The President shall, subject to the direction of the Board of Directors, have such powers and shall perform such duties as the Board of Directors may from time to time designate.

SECTION 10. Chairperson of the Board. The Chairperson of the Board, if one is elected, shall have such powers and shall perform such duties as the Board of Directors may from time to time designate.

SECTION 11. Chief Executive Officer. The Chief Executive Officer, if one is elected, shall have such powers and shall perform such duties as the Board of Directors may from time to time designate.

SECTION 12. Vice Presidents and Assistant Vice Presidents. Any Vice President (including any Executive Vice President or Senior Vice President) and any Assistant Vice President shall have such powers and shall perform such duties as the Board of Directors or the Chief Executive Officer may from time to time designate.

SECTION 13. Treasurer and Assistant Treasurers. The Treasurer shall, subject to the direction of the Board of Directors and except as the Board of Directors or the Chief Executive Officer may otherwise provide, have general charge of the financial affairs of the Corporation and shall cause to be kept accurate books of account. The Treasurer shall have custody of all funds, securities, and valuable documents of the Corporation. He or she shall have such other duties and powers as may be designated from time to time by the Board of Directors or the Chief Executive Officer. Any Assistant Treasurer shall have such powers and perform such duties as the Board of Directors or the Chief Executive Officer may from time to time designate.

SECTION 14. Secretary and Assistant Secretaries. The Secretary shall record all the proceedings of the meetings of the stockholders and the Board of Directors (including committees of the Board of Directors) in books kept for that purpose. In his or her absence from any such meeting, a temporary secretary chosen at the meeting shall record the proceedings thereof. The Secretary shall have charge of the stock ledger (which may, however, be kept by any transfer or other agent of the Corporation). The Secretary shall have custody of the seal of the Corporation, and the Secretary, or an Assistant Secretary shall have authority to affix it to any instrument requiring it, and, when so affixed, the seal may be attested by his or her signature or that of an Assistant Secretary. The Secretary shall have such other duties and powers as may be designated from time to time by the Board of Directors or the Chief Executive Officer. In the absence of the Secretary, any Assistant Secretary may perform his or her duties and responsibilities. Any Assistant Secretary shall have such powers and perform such duties as the Board of Directors or the Chief Executive Officer may from time to time designate.

SECTION 15. Other Powers and Duties. Subject to these Bylaws and to such limitations as the Board of Directors may from time to time prescribe, the officers of the Corporation shall each have such powers and duties as generally pertain to their respective offices, as well as such powers and duties as from time to time may be conferred by the Board of Directors or the Chief Executive Officer.

ARTICLE IV

Capital Stock

SECTION 1. Certificates of Stock. Each stockholder shall be entitled to a certificate of the capital stock of the Corporation in such form as may from time to time be prescribed by the Board of Directors. Such certificate shall be signed by the Chairperson of the Board, the President or a Vice President and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary. The Corporation seal and the signatures by the Corporation's officers, the transfer agent or the registrar may be facsimiles. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed on such certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he or she were such officer, transfer agent or registrar at the time of its issue. Every certificate for shares of stock which are subject to any restriction on transfer and every certificate issued when the Corporation is authorized to issue more than one class or series of stock shall contain such legend with respect thereto as is required by law. Notwithstanding anything to the contrary provided in these Bylaws, the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares (except that the foregoing shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation), and by the approval and adoption of these Bylaws the Board of Directors has determined that all classes or series of the Corporation's stock may be uncertificated, whether upon original issuance, re-issuance, or subsequent transfer.

SECTION 2. Transfers. Subject to any restrictions on transfer and unless otherwise provided by the Board of Directors, shares of stock that are represented by a certificate may be transferred on the books of the Corporation by the surrender to the Corporation or its transfer agent of the certificate theretofore properly endorsed or accompanied by a written assignment or power of attorney properly executed, with transfer stamps (if necessary) affixed, and with such proof of the authenticity of signature as the Corporation or its transfer agent may reasonably require. Shares of stock that are not represented by a certificate may be transferred on the books of the Corporation by submitting to the Corporation or its transfer agent such evidence of transfer and following such other procedures as the Corporation or its transfer agent may require.

SECTION 3. Record Holders. Except as may otherwise be required by law, by the Certificate or by these Bylaws, the Corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect thereto, regardless of any transfer, pledge or other disposition of such stock, until the shares have been transferred on the books of the Corporation in accordance with the requirements of these Bylaws.

SECTION 4. Record Date. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of

stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date: (a) in the case of determination of stockholders entitled to vote at any meeting of stockholders, shall, unless otherwise required by law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting and (b) in the case of any other action, shall not be more than sixty (60) days prior to such other action. If no record date is fixed: (i) the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held; and (ii) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

SECTION 5. Replacement of Certificates. In case of the alleged loss, destruction or mutilation of a certificate of stock of the Corporation, a duplicate certificate may be issued in place thereof, upon such terms as the Board of Directors may prescribe.

ARTICLE V

Indemnification

SECTION 1. Definitions. For purposes of this Article:

(a) “Corporate Status” describes the status of a person who is serving or has served (i) as a Director of the Corporation, (ii) as an Officer of the Corporation, (iii) as a Non-Officer Employee of the Corporation, or (iv) as a director, partner, trustee, officer, employee or agent of any other corporation, partnership, limited liability company, joint venture, trust, employee benefit plan, foundation, association, organization or other legal entity which such person is or was serving at the request of the Corporation. For purposes of this Section 1(a), a Director, Officer or Non-Officer Employee of the Corporation who is serving or has served as a director, partner, trustee, officer, employee or agent of a Subsidiary shall be deemed to be serving at the request of the Corporation. Notwithstanding the foregoing, “Corporate Status” shall not include the status of a person who is serving or has served as a director, officer, employee or agent of a constituent corporation absorbed in a merger or consolidation transaction with the Corporation with respect to such person’s activities prior to said transaction, unless specifically authorized by the Board of Directors or the stockholders of the Corporation;

(b) “Director” means any person who serves or has served the Corporation as a director on the Board of Directors;

(c) “Disinterested Director” means, with respect to each Proceeding in respect of which indemnification is sought hereunder, a Director of the Corporation who is not and was not a party to such Proceeding;

(d) “Expenses” means all attorneys’ fees, retainers, court costs, transcript costs, fees of expert witnesses, private investigators and professional advisors (including, without

limitation, accountants and investment bankers), travel expenses, duplicating costs, printing and binding costs, costs of preparation of demonstrative evidence and other courtroom presentation aids and devices, costs incurred in connection with document review, organization, imaging and computerization, telephone charges, postage, delivery service fees, and all other disbursements, costs or expenses of the type customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, settling or otherwise participating in, a Proceeding;

(e) “Liabilities” means judgments, damages, liabilities, losses, penalties, excise taxes, fines and amounts paid in settlement;

(f) “Non-Officer Employee” means any person who serves or has served as an employee or agent of the Corporation, but who is not or was not a Director or Officer;

(g) “Officer” means any person who serves or has served the Corporation as an officer of the Corporation appointed by the Board of Directors;

(h) “Proceeding” means any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, inquiry, investigation, administrative hearing or other proceeding, whether civil, criminal, administrative, arbitrative or investigative; and

(i) “Subsidiary” shall mean any corporation, partnership, limited liability company, joint venture, trust or other entity of which the Corporation owns (either directly or through or together with another Subsidiary of the Corporation) either (i) a general partner, managing member or other similar interest or (ii) (A) fifty percent (50%) or more of the voting power of the voting capital equity interests of such corporation, partnership, limited liability company, joint

venture or other entity, or (B) fifty percent (50%) or more of the outstanding voting capital stock or other voting equity interests of such corporation, partnership, limited liability company, joint venture or other entity.

SECTION 2. Indemnification of Directors and Officers.

(a) Subject to the operation of Section 4 of this Article V of these Bylaws, each Director and Officer shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment), and to the extent authorized in this Section 2.

(1) Actions, Suits and Proceedings Other than By or In the Right of the Corporation. Each Director and Officer shall be indemnified and held harmless by the Corporation against any and all Expenses and Liabilities that are incurred or paid by such Director or Officer or on such Director's or Officer's behalf in connection with any Proceeding or any claim, issue or matter therein (other than an action by or in the right of the Corporation), which such Director or Officer is, or is threatened to be made, a party to or participant in by reason of such Director's or Officer's Corporate Status, if such Director or Officer acted in good faith and in a manner such Director or Officer

reasonably believed to be in or not opposed to the best interests of the Corporation and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful.

(2) Actions, Suits and Proceedings By or In the Right of the Corporation. Each Director and Officer shall be indemnified and held harmless by the Corporation against any and all Expenses that are incurred by such Director or Officer or on such Director's or Officer's behalf in connection with any Proceeding or any claim, issue or matter therein by or in the right of the Corporation, which such Director or Officer is, or is threatened to be made, a party to or participant in by reason of such Director's or Officer's Corporate Status, if such Director or Officer acted in good faith and in a manner such Director or Officer reasonably believed to be in or not opposed to the best interests of the Corporation; provided, however, that no indemnification shall be made under this Section 2(a)(2) in respect of any claim, issue or matter as to which such Director or Officer shall have been finally adjudged by a court of competent jurisdiction to be liable to the Corporation, unless, and only to the extent that, the Court of Chancery or another court in which such Proceeding was brought shall determine upon application that, despite adjudication of liability, but in view of all the circumstances of the case, such Director or Officer is fairly and reasonably entitled to indemnification for such Expenses that such court deems proper.

(3) Survival of Rights. The rights of indemnification provided by this Section 2 shall continue as to a Director or Officer after he or she has ceased to be a Director or Officer and shall inure to the benefit of his or her heirs, executors, administrators and personal representatives.

(4) Actions by Directors or Officers. Notwithstanding the foregoing, the Corporation shall indemnify any Director or Officer seeking indemnification in connection with a Proceeding initiated by such Director or Officer only if such Proceeding (including any parts of such Proceeding not initiated by such Director or Officer) was authorized in advance by the Board of Directors, unless such Proceeding was brought to enforce such Officer's or Director's rights to indemnification or, in the case of Directors, advancement of Expenses under these Bylaws in accordance with the provisions set forth herein.

SECTION 3. Indemnification of Non-Officer Employees. Subject to the operation of Section 4 of this Article V of these Bylaws, each Non-Officer Employee may, in the discretion of the Board of Directors, be indemnified by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended, against any or all Expenses and Liabilities that are incurred by such Non-Officer Employee or on such Non-Officer Employee's behalf in connection with any threatened, pending or completed Proceeding, or any claim, issue or matter therein, which such Non-Officer Employee is, or is threatened to be made, a party to or participant in by reason of such Non-Officer Employee's Corporate Status, if such Non-Officer Employee acted in good faith and in a manner such Non-Officer Employee reasonably believed to be in or not opposed to the best interests of the Corporation and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. The rights of

indemnification provided by this Section 3 shall exist as to a Non-Officer Employee after he or she has ceased to be a Non-Officer Employee and shall inure to the benefit of his or her heirs, personal representatives, executors and administrators. Notwithstanding the foregoing, the Corporation may indemnify any Non-Officer Employee seeking indemnification in connection with a Proceeding initiated by such Non-Officer Employee only if such Proceeding was authorized in advance by the Board of Directors.

SECTION 4. Determination. Unless ordered by a court, no indemnification shall be provided pursuant to this Article V to a Director, to an Officer or to a Non-Officer Employee unless a determination shall have been made that such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation and, with respect to any criminal Proceeding, such person had no reasonable cause to believe his or her conduct was unlawful. Such determination shall be made by (a) a majority vote of the Disinterested Directors, even though less than a quorum of the Board of Directors, (b) a committee comprised of Disinterested Directors, such committee having been designated by a majority vote of the Disinterested Directors (even though less than a quorum), (c) if there are no such Disinterested Directors, or if a majority of Disinterested Directors so directs, by independent legal counsel in a written opinion, or (d) by the stockholders of the Corporation.

SECTION 5. Advancement of Expenses to Directors Prior to Final Disposition.

(a) The Corporation shall advance all Expenses incurred by or on behalf of any Director in connection with any Proceeding in which such Director is involved by reason of such Director's Corporate Status within thirty (30) days after the receipt by the Corporation of a written statement from such Director requesting such advance or advances from time to time, whether prior to or after final disposition of such Proceeding. Such statement or statements shall reasonably evidence the Expenses incurred by such Director and shall be preceded or accompanied by an undertaking by or on behalf of such Director to repay any Expenses so advanced if it shall ultimately be determined that such Director is not entitled to be indemnified against such Expenses. Notwithstanding the foregoing, the Corporation shall advance all Expenses incurred by or on behalf of any Director seeking advancement of expenses hereunder in connection with a Proceeding initiated by such Director only if such Proceeding (including any parts of such Proceeding not initiated by such Director) was (i) authorized by the Board of Directors, or (ii) brought to enforce such Director's rights to indemnification or advancement of Expenses under these Bylaws.

(b) If a claim for advancement of Expenses hereunder by a Director is not paid in full by the Corporation within thirty (30) days after receipt by the Corporation of documentation of Expenses and the required undertaking, such Director may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and if successful in whole or in part, such Director shall also be entitled to be paid the expenses of prosecuting such claim. The failure of the Corporation (including its Board of Directors or any committee thereof, independent legal counsel, or stockholders) to make a determination concerning the permissibility of such advancement of Expenses under this Article V shall not be a defense to an action brought by a Director for recovery of the unpaid amount of an advancement claim and

shall not create a presumption that such advancement is not permissible. The burden of proving that a Director is not entitled to an advancement of expenses shall be on the Corporation.

(c) In any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that the Director has not met any applicable standard for indemnification set forth in the DGCL.

SECTION 6. Advancement of Expenses to Officers and Non-Officer Employees Prior to Final Disposition.

(a) The Corporation may, at the discretion of the Board of Directors, advance any or all Expenses incurred by or on behalf of any Officer or any Non-Officer Employee in connection with any Proceeding in which such person is involved by reason of his or her Corporate Status as an Officer or Non-Officer Employee upon the receipt by the Corporation of a statement or statements from such Officer or Non-Officer Employee requesting such advance or advances from time to time, whether prior to or after final disposition of such Proceeding. Such statement or statements shall reasonably evidence the Expenses incurred by such Officer or Non-Officer Employee and shall be preceded or accompanied by an undertaking by or on behalf of such person to repay any Expenses so advanced if it shall ultimately be determined that such Officer or Non-Officer Employee is not entitled to be indemnified against such Expenses.

(b) In any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that the Officer or Non-Officer Employee has not met any applicable standard for indemnification set forth in the DGCL.

SECTION 7. Contractual Nature of Rights.

(a) The provisions of this Article V shall be deemed to be a contract between the Corporation and each Director and Officer entitled to the benefits hereof at any time while this Article V is in effect, in consideration of such person's past or current and any future performance of services for the Corporation. Neither amendment, repeal or modification of any provision of this Article V nor the adoption of any provision of the Certificate of Incorporation inconsistent with this Article V shall eliminate or reduce any right conferred by this Article V in respect of any act or omission occurring, or any cause of action or claim that accrues or arises or any state of facts existing, at the time of or before such amendment, repeal, modification or adoption of an inconsistent provision (even in the case of a proceeding based on such a state of facts that is commenced after such time), and all rights to indemnification and advancement of Expenses granted herein or arising out of any act or omission shall vest at the time of the act or omission in question, regardless of when or if any proceeding with respect to such act or omission is commenced. The rights to indemnification and to advancement of expenses provided by, or granted pursuant to, this Article V shall continue notwithstanding that the person has ceased to be a director or officer of the Corporation and shall inure to the benefit of the estate, heirs, executors, administrators, legatees and distributes of such person.

(b) If a claim for indemnification hereunder by a Director or Officer is not paid in full by the Corporation within sixty (60) days after receipt by the Corporation of a written claim for indemnification, such Director or Officer may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim, and if successful in whole or in part, such Director or Officer shall also be entitled to be paid the expenses of prosecuting such claim. The failure of the Corporation (including its Board of Directors or any committee thereof, independent legal counsel, or stockholders) to make a determination concerning the permissibility of such indemnification under this Article V shall not be a defense to an action brought by a Director or Officer for recovery of the unpaid amount of an indemnification claim and shall not create a presumption that such indemnification is not permissible. The burden of proving that a Director or Officer is not entitled to indemnification shall be on the Corporation.

(c) In any suit brought by a Director or Officer to enforce a right to indemnification hereunder, it shall be a defense that such Director or Officer has not met any applicable standard for indemnification set forth in the DGCL.

SECTION 8. Non-Exclusivity of Rights. The rights to indemnification and to advancement of Expenses set forth in this Article V shall not be exclusive of any other right which any Director, Officer, or Non-Officer Employee may have or hereafter acquire under any statute, provision of the Certificate or these Bylaws, agreement, vote of stockholders or Disinterested Directors or otherwise.

SECTION 9. Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any Director, Officer or Non-Officer Employee against any liability of any character asserted against or incurred by the Corporation or any such Director, Officer or Non-Officer Employee, or arising out of any such person's Corporate Status, whether or not the Corporation would have the power to indemnify such person against such liability under the DGCL or the provisions of this Article V.

SECTION 10. Other Indemnification. The Corporation's obligation, if any, to indemnify or provide advancement of Expenses to any person under this Article V as a result of such person serving, at the request of the Corporation, as a director, partner, trustee, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise shall be reduced by any amount such person may collect as indemnification or advancement of Expenses from such other corporation, partnership, joint venture, trust, employee benefit plan or enterprise (the "Primary Indemnitor"). Any indemnification or advancement of Expenses under this Article V owed by the Corporation as a result of a person serving, at the request of the Corporation, as a director, partner, trustee, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise shall only be in excess of, and shall be secondary to, the indemnification or advancement of Expenses available from the applicable Primary Indemnitor(s) and any applicable insurance policies.

ARTICLE VI

Miscellaneous Provisions

SECTION 1. Fiscal Year. The fiscal year of the Corporation shall be determined by the Board of Directors.

SECTION 2. Seal. The Board of Directors shall have power to adopt and alter the seal of the Corporation.

SECTION 3. Execution of Instruments. All deeds, leases, transfers, contracts, bonds, notes and other obligations to be entered into by the Corporation in the ordinary course of its business without director action may be executed on behalf of the Corporation by the Chairperson of the Board, if one is elected, the Chief Executive Officer, the President or the Treasurer or any other officer, employee or agent of the Corporation as the Board of Directors or the executive committee of the Board may authorize.

SECTION 4. Voting of Securities. Unless the Board of Directors otherwise provides, the Chairperson of the Board, if one is elected, the President or the Treasurer may waive notice of and act on behalf of the Corporation, or appoint another person or persons to act as proxy or attorney in fact for the Corporation with or without discretionary power and/or power of substitution, at any meeting of stockholders or shareholders of any other corporation or organization, any of whose securities are held by the Corporation.

SECTION 5. Resident Agent. The Board of Directors may appoint a resident agent upon whom legal process may be served in any action or proceeding against the Corporation.

SECTION 6. Corporate Records. The original or attested copies of the Certificate, Bylaws and records of all meetings of the incorporators, stockholders and the Board of Directors and the stock transfer books, which shall contain the names of all stockholders, their record addresses and the amount of stock held by each, may be kept outside the State of Delaware and shall be kept at the principal office of the Corporation, at an office of its counsel, at an office of its transfer agent or at such other place or places as may be designated from time to time by the Board of Directors.

SECTION 7. Certificate. All references in these Bylaws to the Certificate shall be deemed to refer to the Amended and Restated Certificate of Incorporation of the Corporation, as amended and/or restated and in effect from time to time.

SECTION 8. Amendment of Bylaws.

(a) Amendment by Directors. Except as provided otherwise by law, these Bylaws may be amended or repealed by the Board of Directors by the affirmative vote of a majority of the directors then in office.

(b) Amendment by Stockholders. These Bylaws may be amended or repealed at any Annual Meeting, or special meeting of stockholders called for such purpose in accordance with these Bylaws, by the affirmative vote of at least seventy-five percent (75%) of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class; provided, however, that if the Board of Directors recommends that stockholders approve such amendment or repeal at such meeting of stockholders, such amendment or repeal shall only require the affirmative vote of the majority of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class. Notwithstanding the foregoing, stockholder approval shall not be required unless mandated by the Certificate, these Bylaws, or other applicable law.

SECTION 9. Notices. If mailed, notice to stockholders shall be deemed given when deposited in the mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation. Without limiting the manner by which notice otherwise may be given to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the DGCL.

SECTION 10. Waivers. A written waiver of any notice, signed by a stockholder or director, or waiver by electronic transmission by such person, whether given before or after the time of the event for which notice is to be given, shall be deemed equivalent to the notice required to be given to such person. Neither the business to be transacted at, nor the purpose of, any meeting need be specified in such a waiver.

ADOPTED: , 2015

EFFECTIVE: , 2015

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN SECTIONS 5.3 AND 5.4 BELOW, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: Blueprint Medicines, Inc., a Delaware corporation
Number of Shares: , subject to adjustment
Type/Series of Stock: Series A Convertible Preferred Stock, $0.001 par value per share
Warrant Price: $1.00 per Share, subject to adjustment
Issue Date: ,
Expiration Date: , **See also Section 5.1(b).**
Credit Facility: This Warrant to Purchase Stock ("**Warrant**") is issued in connection with that certain Agreement of even date herewith between and the Company (as amended and/or modified and in effect from time to time, the " ").

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, (together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, "**Holder**") is entitled to purchase the number of fully paid and non-assessable shares (the "**Shares**") of the above-stated Type/Series of Stock (the "**Class**") of the above-named company (the "**Company**") at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Section 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant. Reference is made to Section 5.4 of this Warrant whereby shall transfer this Warrant to its parent company, .

SECTION 1. EXERCISE.

1.1 Method of Exercise. Holder may at any time and from time to time exercise this Warrant, in whole or in part, by delivering to the Company the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached hereto as Appendix 1 and, unless Holder is exercising this Warrant pursuant to a cashless exercise set forth in Section 1.2, a check, wire transfer of same-day funds (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Cashless Exercise. On any exercise of this Warrant, in lieu of payment of the aggregate Warrant Price in the manner as specified in Section 1.1 above, but otherwise in accordance with the requirements of Section 1.1, Holder may elect to receive Shares equal to the value of this Warrant, or portion hereof as to which this Warrant is being exercised. Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

$$X = Y(A-B)/A$$

where:

X = the number of Shares to be issued to the Holder;

Y = the number of Shares with respect to which this Warrant is being exercised (inclusive of the Shares surrendered to the Company in payment of the aggregate Warrant Price);

A = the Fair Market Value (as determined pursuant to Section 1.3 below) of one Share; and

B = the Warrant Price.

1.3 Fair Market Value. If the Company's common stock is then traded or quoted on a nationally recognized securities exchange, inter-dealer quotation system or over-the-counter market (a "**Trading Market**") and the Class is common stock, the fair market value of a Share shall be the closing price or last sale price of a share of common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company. If the Company's common stock is then traded in a Trading Market and the Class is a series of the Company's convertible preferred stock, the fair market value of a Share shall be the closing price or last sale price of a share of the Company's common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company multiplied by the number of shares of the Company's common stock into which a Share is then convertible. If the Company's common stock is not traded in a Trading Market, the Board of Directors of the Company shall determine the fair market value of a Share in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Within a reasonable time after Holder exercises this Warrant in the manner set forth in Section 1.1 or 1.2 above, the Company shall deliver to Holder a certificate representing the Shares issued to Holder upon such exercise and, if this Warrant has not been fully exercised and has not expired, a new warrant of like tenor representing the Shares not so acquired.

1.5 Replacement of Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form, substance and amount to the Company or, in the case of mutilation, on surrender of this Warrant to the Company for cancellation, the Company shall, within a reasonable time, execute and deliver to Holder, in lieu of this Warrant, a new warrant of like tenor and amount.

1.6 Treatment of Warrant Upon Acquisition of Company.

(a) Acquisition. For the purpose of this Warrant, "**Acquisition**" means any transaction or series of related transactions involving: (i) the sale, lease, exclusive license, or other disposition of all or substantially all of the assets of the Company (ii) any merger or consolidation of the Company into or with another person or entity (other than a merger or consolidation effected exclusively to change the Company's domicile), or any other corporate reorganization, in which the stockholders of the Company in their capacity as such immediately prior to such merger, consolidation or reorganization, own less than a majority of

the Company's (or the surviving or successor entity's) outstanding voting power immediately after such merger, consolidation or reorganization (or, if such Company stockholders beneficially own a majority of the outstanding voting power of the surviving or

successor entity as of immediately after such merger, consolidation or reorganization, such surviving or successor entity is not the Company); or (iii) any sale or other transfer by the stockholders of the Company of shares representing at least a majority of the Company's then-total outstanding combined voting power. Notwithstanding the foregoing, a transaction (or series of transactions) shall not constitute an "Acquisition" if (i) its sole purpose is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately prior to such transaction, or (ii) it is a sale by the Company of its equity securities to one or more investors for cash in a financing transaction for capital-raising purposes.

(b) Treatment of Warrant at Acquisition. In the event of an Acquisition in which the consideration to be received by the Company's stockholders consists solely of cash, solely of Marketable Securities or a combination of cash and Marketable Securities (a "**Cash/Public Acquisition**"), either (i) Holder shall exercise this Warrant pursuant to Section 1.1 and/or 1.2 and such exercise will be deemed effective immediately prior to and contingent upon the consummation of such Acquisition or (ii) if Holder elects not to exercise the Warrant, this Warrant will expire immediately prior to the consummation of such Acquisition.

(c) The Company shall provide Holder with written notice of its request relating to the Cash/Public Acquisition (together with such reasonable information as Holder may reasonably require regarding the treatment of this Warrant in connection with such contemplated Cash/Public Acquisition giving rise to such notice), which is to be delivered to Holder not less than seven (7) Business Days prior to the closing of the proposed Cash/Public Acquisition. In the event the Company does not provide such notice, then if, immediately prior to the Cash/Public Acquisition, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Section 1.3 above would be greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised, and the Company shall promptly notify the Holder of the number of Shares (or such other securities) issued upon such exercise to the Holder and Holder shall be deemed to have restated each of the representations and warranties in Section 4 of the Warrant as the date thereof.

(d) Upon the closing of any Acquisition other than a Cash/Public Acquisition, the acquiring, surviving or successor entity shall assume the obligations of this Warrant, and this Warrant shall thereafter be exercisable for the same securities and/or other property as would have been paid for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on and as of the closing of such Acquisition, subject to further adjustment from time to time in accordance with the provisions of this Warrant.

(e) As used in this Warrant, "**Marketable Securities**" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise this Warrant on or prior to the closing thereof is then traded in Trading Market, and (iii) following the closing of such Acquisition, Holder would not be restricted from publicly re-selling all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise this Warrant in full on or prior to the closing of such Acquisition, except to the extent that any such restriction (x) arises solely under federal or state

securities laws, rules or regulations, and (y) does not extend beyond six (6) months from the closing of such Acquisition.

1.7 Certain Agreements. Upon any exercise of this Warrant, Holder shall, if the Company so requests in writing, become a party to, by execution and delivery to the Company of a counterpart signature page, joinder agreement, instrument of accession or similar instrument, (i) that certain Investors' Rights Agreement dated as of April 15, 2011 by and among the Company and the other parties thereto, as amended and in effect from time to time (the "**Investor Rights Agreement**"); (ii) that certain Voting Agreement, dated as of January April 15, 2011, by and among the Company and the other parties thereto, as amended and in effect from time to time; and (iii) that certain Stockholders Agreement, dated as of April 15, 2011, by and among the Company and the other parties thereto, as amended and in effect from time to time (collectively, the "**Stockholder Agreements**"); in each case, solely with respect to the Shares issued upon such exercise (and the shares of Common Stock, if any, issued upon conversion of such Shares), solely to the extent that all holders of outstanding shares of the Class are then parties thereto, and solely to the extent each such Stockholder Agreement is then by its terms in force and effect.

SECTION 2. ADJUSTMENTS TO THE SHARES AND WARRANT PRICE.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend or distribution on the outstanding shares of the Class payable in common stock or other securities or property (other than cash), then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Shares of record as of the date the dividend or distribution occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any event whereby all of the outstanding shares of the Class are reclassified, exchanged, combined, substituted, or replaced for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that Holder would have received had the Shares been outstanding on and as of the consummation of such event, and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 2.2 shall similarly apply to successive reclassifications, exchanges, combinations substitutions, replacements or other similar events.

2.3 Conversion of Preferred Stock. If the Class is a class and series of the Company's convertible preferred stock, in the event that all outstanding shares of the Class are converted, automatically or by action of the holders thereof, into common stock pursuant to the provisions of the Company's Amended and Restated Certificate of Incorporation, as amended and in effect from time to time (the "**Restated Certificate**"), including, without limitation, in connection with the Company's initial, underwritten public offering and sale of its common stock pursuant to an effective registration statement under the Act (the

"**IPO**"), then from and after the date on which all outstanding shares of the Class have been so converted, this Warrant shall be exercisable for such number of shares of common

stock into which the Shares would have been converted had the Shares been outstanding on the date of such conversion, and the Warrant Price shall equal the Warrant Price in effect as of immediately prior to such conversion divided by the number of shares of common stock into which one Share would have been converted, all subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant.

2.4 Adjustments for Diluting Issuances. Without duplication of any adjustment otherwise provided for in this Section 2, the number of shares of common stock issuable upon conversion of the Shares shall be subject to anti-dilution adjustment from time to time in the manner set forth in the Restated Certificate as if the Shares were issued and outstanding on and as of the date of any such required adjustment.

2.5 No Fractional Share. No fractional Share shall be issuable upon exercise of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional Share interest arises upon any exercise of the Warrant, the Company shall eliminate such fractional Share interest by paying Holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with Section 1.3 above) of a full Share, less (ii) the then-effective Warrant Price.

2.6 Notice/Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company, at the Company's expense, shall notify Holder in writing within a reasonable time setting forth the adjustments to the Warrant Price, Class and/or number of Shares and facts upon which such adjustment is based. The Company shall, upon written request from Holder, furnish Holder with a certificate of its Chief Financial Officer, including computations of such adjustment and the Warrant Price, Class and number of Shares in effect upon the date of such adjustment.

SECTION 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The initial Warrant Price referenced on the first page of this Warrant is not greater than the price per share at which shares of the Class were last sold and issued prior to the Issue Date hereof in an arms-length transaction in which at least $500,000 of such shares were sold.

(b) All Shares which may be issued upon the exercise of this Warrant shall, when issued, sold and delivered in accordance with the terms of and for the consideration set forth in this Warrant, and all securities, if any, issuable upon conversion of the Shares, shall, when issued, sold and delivered in accordance with the terms of and for the consideration set forth in the Restated Certificate be duly authorized, validly issued, fully paid and non-assessable, and free of any liens and encumbrances except for restrictions on transfer provided for (i) herein, (ii) under the Stockholder Agreements, or (iii) under applicable federal and state securities laws. The Company covenants that it shall at all times cause to be reserved and kept available out of its authorized and unissued capital stock such number of shares of the Class, common stock and other securities as will be sufficient to permit the exercise in full of this Warrant and the conversion of the Shares into common stock or such other securities.

(c) The Company's capitalization table attached hereto as Schedule 1 is true and complete, in all material respects, as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time to:

(a) declare any dividend or distribution upon the outstanding shares of the Class or common stock, whether in cash, property, stock, or other securities and whether or not a regular cash dividend;

(b) offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual pre-emptive rights);

(c) effect any reclassification, exchange, combination, substitution, reorganization or recapitalization of the outstanding shares of the Class;

(d) effect an Acquisition or to liquidate, dissolve or wind up; or

(e) effect an IPO;

then, in connection with each such event, the Company shall give Holder:

(1) in the case of the matters referred to in (a) and (b) above, at least seven (7) Business Days prior written notice of the earlier to occur of the effective date thereof or the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of outstanding shares of the Class will be entitled thereto) or for determining rights to vote, if any;

(2) in the case of the matters referred to in (c) and (d) above at least seven (7) Business Days prior written notice of the date when the same will take place (and specifying the date on which the holders of outstanding shares of the Class will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event); and

(3) with respect to the IPO, at least seven (7) Business Days prior written notice of the date on which the Company proposes to file its registration statement in connection therewith.

Reference is made to Section 1.6(c) whereby this Warrant will be deemed to be exercised pursuant to Section 1.2 hereof if the Company does not give written notice to Holder of a Cash/Public Acquisition as required by the terms hereof. Company will also provide information requested by Holder that is reasonably

necessary to enable Holder to comply with Holder's accounting or reporting requirements.

SECTION 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER.

The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder are being acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder is aware of the Company's business affairs and financial condition and has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

4.6 Market Stand-off Agreement. The Holder agrees that the Shares shall be subject to the Market Standoff provisions in Section 2.11 of the Investor Rights Agreement.

4.7 No Voting Rights. Holder, as a Holder of this Warrant, will not have any voting rights until the exercise of this Warrant.

SECTION 5. MISCELLANEOUS.

5.1 Term; Automatic Cashless Exercise Upon Expiration.

(a) Term. Subject to the provisions of Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before PM, time, on the Expiration Date and shall be void thereafter.

(b) Automatic Cashless Exercise upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to

Section 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised, and the Company shall, within a reasonable time, deliver a certificate representing the Shares (or such other securities) issued upon such exercise to Holder.

5.2 Legends. Each certificate evidencing Shares (and each certificate evidencing securities issued upon conversion of any Shares, if any) shall be imprinted with a legend in substantially the following form:

> THE SHARES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE ISSUER TO DATED , , MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issued upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned in whole or in part except in compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to ('s parent company) or any other affiliate of Holder, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act. Additionally, the Company shall also not require an opinion of counsel if there is no material question as to the availability of Rule 144 promulgated under the Act.

5.4 Transfer Procedure. After receipt by of the executed Warrant, will transfer all of this Warrant to its parent company, . By its acceptance of this Warrant, hereby makes to the Company each of the representations and warranties set forth in Section 4 hereof and agrees to be bound by all of the terms and conditions of this Warrant as if the original Holder hereof. Subject to

the provisions of Section 5.3 and upon providing the Company with written notice, and any subsequent Holder may transfer all or part of this Warrant or the Shares issued upon exercise of this Warrant (or the securities issued upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, or any subsequent Holder will give the Company notice of the portion of the Warrant and/or Shares (and/or securities issued upon conversion of the Shares, if any) being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable); and provided further, that any subsequent transferee other than shall agree in writing with the Company to be bound by all of the terms and conditions of this Warrant; provided, further, that any transfer of Shares issued upon any exercise hereof (or of any securities issued upon conversion of any such Shares) shall be subject to the provisions of the Stockholder Agreements. Notwithstanding any contrary provision herein, at all times prior to the IPO,

Holder may not, without the Company's prior written consent, transfer this Warrant or any portion hereof, or any Shares issued upon any exercise hereof, or any shares or other securities issued upon any conversion of any Shares issued upon any exercise hereof, to any person or entity who directly competes with the Company, except in connection with an Acquisition of the Company by such a direct competitor.

5.5 Notices. All notices and other communications hereunder from the Company to the Holder, or vice versa, shall be deemed delivered and effective (i) when given personally, (ii) on the third (3rd) Business Day after being mailed by first-class registered or certified mail, postage prepaid, (iii) upon actual receipt if given by facsimile or electronic mail and such receipt is confirmed in writing by the recipient, or (iv) on the first Business Day following delivery to a reliable overnight courier service, courier fee prepaid, in any case at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such Holder from time to time in accordance with the provisions of this Section 5.5. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

Attn:

,

Telephone:
Facsimile:
Email address:

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

Blueprint Medicines, Inc.
Attn: Chief Financial Officer
215 First Street
Cambridge, MA 02142
Telephone:
Facsimile:
Email:

With a copy (which shall not constitute notice) to:

Goodwin Procter LLP
Attn: Kingsley L. Taft, Esq.
53 State Street
Boston, MA 02109
Telephone: (617) 570-1222
Facsimile: (617) 523-1231
Email: ktaft@goodwinprocter.com

5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated (either generally or in a particular instance and either retroactively or prospectively) only

by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Counterparts; Facsimile/Electronic Signatures. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement. Any signature page delivered electronically or by facsimile shall be binding to the same extent as an original signature page with regards to any agreement subject to the terms hereof or any amendment thereto.

5.9 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California, without giving effect to its principles regarding conflicts of law.

5.10 Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

5.11 Business Days. "**Business Day**" is any day that is not a Saturday, Sunday or a day on which is closed.

[Remainder of page left blank intentionally]
[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Warrant to Purchase Stock to be executed by their duly authorized representatives effective as of the Issue Date written above.

"COMPANY"

BLUEPRINT MEDICINES, INC.

By: _____

Name: _____
(Print)

Title:

"HOLDER"

_____

By: _____

Name: _____
(Print)

Title:

APPENDIX 1

NOTICE OF EXERCISE

1. The undersigned Holder hereby exercises its right to purchase shares of the Common/Series Preferred [circle one] Stock of (the "**Company**") in accordance with the attached Warrant To Purchase Stock, and tenders payment of the aggregate Warrant Price for such shares as follows:

o check in the amount of $ payable to order of the Company enclosed herewith

o Wire transfer of immediately available funds to the Company's account

o Cashless Exercise pursuant to Section 1.2 of the Warrant

o Other [Describe]

2. Please issue a certificate or certificates representing the Shares in the name specified below:

_____
Holder's Name

_____

_____
(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Section 4 of the Warrant to Purchase Stock as of the date hereof.

HOLDER:

_____

By: _____

Name: _____

Title: _____

(Date): _____

SCHEDULE 1

Company Capitalization Table

See attached

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN SECTIONS 5.3 AND 5.4 BELOW, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: Blueprint Medicines Corporation, a Delaware corporation
Number of Shares: , subject to adjustment
Type/Series of Stock: Series B Convertible Preferred Stock, $0.001 par value per share
Warrant Price: $1.20 per Share, subject to adjustment
Issue Date: ,
Expiration Date: , **See also Section 5.1(b).**
Credit Facility: This Warrant to Purchase Stock ("**Warrant**") is issued in connection with that certain Agreement, of even date herewith, to that certain dated , , between and the Company (collectively, and as may be further amended and/or modified and in effect from time to time, the " ").

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, (together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, "**Holder**") is entitled to purchase the number of fully paid and non-assessable shares (the "**Shares**") of the above-stated Type/Series of Stock (the "**Class**") of the above-named company (the "**Company**") at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Section 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant. Reference is made to Section 5.4 of this Warrant whereby shall transfer this Warrant to its parent company, .

SECTION 1. EXERCISE.

1.1 Method of Exercise. Holder may at any time and from time to time exercise this Warrant, in whole or in part, by delivering to the Company the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached hereto as Appendix 1 and, unless Holder is exercising this Warrant pursuant to a cashless exercise set forth in Section 1.2, a check, wire transfer of same-day funds (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Cashless Exercise. On any exercise of this Warrant, in lieu of payment of the aggregate Warrant Price in the manner as specified in Section 1.1 above, but otherwise in accordance with the requirements of Section 1.1, Holder may elect to receive Shares equal to the value of this Warrant, or portion hereof as to which this Warrant is being exercised. Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

$$X = Y(A-B)/A$$

---

where:

X = the number of Shares to be issued to the Holder;

Y = the number of Shares with respect to which this Warrant is being exercised (inclusive of the Shares surrendered to the Company in payment of the aggregate Warrant Price);

A = the Fair Market Value (as determined pursuant to Section 1.3 below) of one Share; and

B = the Warrant Price.

1.3 Fair Market Value. If the Company's common stock is then traded or quoted on a nationally recognized securities exchange, inter-dealer quotation system or over-the-counter market (a "**Trading Market**") and the Class is common stock, the fair market value of a Share shall be the closing price or last sale price of a share of common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company. If the Company's common stock is then traded in a Trading Market and the Class is a series of the Company's convertible preferred stock, the fair market value of a Share shall be the closing price or last sale price of a share of the Company's common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company multiplied by the number of shares of the Company's common stock into which a Share is then convertible. If the Company's common stock is not traded in a Trading Market, the Board of Directors of the Company shall determine the fair market value of a Share in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Within a reasonable time after Holder exercises this Warrant in the manner set forth in Section 1.1 or 1.2 above, the Company shall deliver to Holder a certificate representing the Shares issued to Holder upon such exercise and, if this Warrant has not been fully exercised and has not expired, a new warrant of like tenor representing the Shares not so acquired.

1.5 Replacement of Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form, substance and amount to the Company or, in the case of mutilation, on surrender of this Warrant to the Company for cancellation, the Company shall, within a reasonable time, execute and deliver to Holder, in lieu of this Warrant, a new warrant of like tenor and amount.

1.6 Treatment of Warrant Upon Acquisition of Company.

(a) Acquisition. For the purpose of this Warrant, "**Acquisition**" means any transaction or series of related transactions involving: (i) the sale, lease, exclusive license, or other disposition of all or substantially all of the assets of the Company (ii) any merger or consolidation of the Company into or with another person or entity (other than a merger or consolidation effected exclusively to change the Company's domicile), or any other corporate reorganization,

in which the stockholders of the Company in their capacity as such immediately prior to such merger, consolidation or reorganization, own less than a majority of the Company's (or the surviving or successor entity's)

outstanding voting power immediately after such merger, consolidation or reorganization (or, if such Company stockholders beneficially own a majority of the outstanding voting power of the surviving or successor entity as of immediately after such merger, consolidation or reorganization, such surviving or successor entity is not the Company); or (iii) any sale or other transfer by the stockholders of the Company of shares representing at least a majority of the Company's then-total outstanding combined voting power. Notwithstanding the foregoing, a transaction (or series of transactions) shall not constitute an "Acquisition" if (i) its sole purpose is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately prior to such transaction, or (ii) it is a sale by the Company of its equity securities to one or more investors for cash in a financing transaction for capital-raising purposes.

(b) Treatment of Warrant at Acquisition. In the event of an Acquisition in which the consideration to be received by the Company's stockholders consists solely of cash, solely of Marketable Securities or a combination of cash and Marketable Securities (a "**Cash/Public Acquisition**"), either (i) Holder shall exercise this Warrant pursuant to Section 1.1 and/or 1.2 and such exercise will be deemed effective immediately prior to and contingent upon the consummation of such Acquisition or (ii) if Holder elects not to exercise the Warrant, this Warrant will expire immediately prior to the consummation of such Acquisition.

(c) The Company shall provide Holder with written notice of its request relating to the Cash/Public Acquisition (together with such reasonable information as Holder may reasonably require regarding the treatment of this Warrant in connection with such contemplated Cash/Public Acquisition giving rise to such notice), which is to be delivered to Holder not less than seven (7) Business Days prior to the closing of the proposed Cash/Public Acquisition. In the event the Company does not provide such notice, then if, immediately prior to the Cash/Public Acquisition, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Section 1.3 above would be greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised, and the Company shall promptly notify the Holder of the number of Shares (or such other securities) issued upon such exercise to the Holder and Holder shall be deemed to have restated each of the representations and warranties in Section 4 of the Warrant as the date thereof.

(d) Upon the closing of any Acquisition other than a Cash/Public Acquisition, the acquiring, surviving or successor entity shall assume the obligations of this Warrant, and this Warrant shall thereafter be exercisable for the same securities and/or other property as would have been paid for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on and as of the closing of such Acquisition, subject to further adjustment from time to time in accordance with the provisions of this Warrant.

(e) As used in this Warrant, "**Marketable Securities**" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise this Warrant on or prior to the closing thereof is then traded in Trading Market, and (iii) following the closing of such Acquisition, Holder would not be restricted from publicly re-selling all of the issuer's shares and/or other securities that would be received

by Holder in such Acquisition were Holder to exercise this Warrant in full on or prior to the closing of such Acquisition, except to the extent that any such restriction (x) arises solely under federal or state securities laws, rules or regulations, and (y) does not extend beyond six (6) months from the closing of such Acquisition.

1.7 Certain Agreements. Upon any exercise of this Warrant, Holder shall, if the Company so requests in writing, become a party to, by execution and delivery to the Company of a counterpart signature page, joinder agreement, instrument of accession or similar instrument, (i) that certain Investors' Rights Agreement dated as of April 15, 2011 by and among the Company and the other parties thereto, as amended or restated and in effect from time to time (the "**Investor Rights Agreement**"); (ii) that certain Voting Agreement, dated as of January April 15, 2011, by and among the Company and the other parties thereto, as amended or restated and in effect from time to time; and (iii) that certain Stockholders Agreement, dated as of April 15, 2011, by and among the Company and the other parties thereto, as amended or restated and in effect from time to time (collectively, the "**Stockholder Agreements**"); in each case, solely with respect to the Shares issued upon such exercise (and the shares of Common Stock, if any, issued upon conversion of such Shares), solely to the extent that all holders of outstanding shares of the Class are then parties thereto, and solely to the extent each such Stockholder Agreement is then by its terms in force and effect.

SECTION 2. ADJUSTMENTS TO THE SHARES AND WARRANT PRICE.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend or distribution on the outstanding shares of the Class payable in common stock or other securities or property (other than cash), then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Shares of record as of the date the dividend or distribution occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any event whereby all of the outstanding shares of the Class are reclassified, exchanged, combined, substituted, or replaced for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that Holder would have received had the Shares been outstanding on and as of the consummation of such event, and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 2.2 shall similarly apply to successive reclassifications, exchanges, combinations substitutions, replacements or other similar events.

2.3 Conversion of Preferred Stock. If the Class is a class and series of the Company's convertible preferred stock, in the event that all outstanding shares of the Class are converted, automatically or by action of the holders thereof, into common stock pursuant to the provisions of the Company's

Amended and Restated Certificate of Incorporation, as amended or restated and in effect from time to time (the "**Restated Certificate**"), including, without limitation, in connection with the Company's initial, underwritten public offering and sale of its common stock pursuant to an effective

registration statement under the Act (the "**IPO**"), then from and after the date on which all outstanding shares of the Class have been so converted, this Warrant shall be exercisable for such number of shares of common stock into which the Shares would have been converted had the Shares been outstanding on the date of such conversion, and the Warrant Price shall equal the Warrant Price in effect as of immediately prior to such conversion divided by the number of shares of common stock into which one Share would have been converted, all subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant.

2.4 Adjustments for Diluting Issuances. Without duplication of any adjustment otherwise provided for in this Section 2, the number of shares of common stock issuable upon conversion of the Shares shall be subject to anti-dilution adjustment from time to time in the manner set forth in the Restated Certificate as if the Shares were issued and outstanding on and as of the date of any such required adjustment.

2.5 No Fractional Share. No fractional Share shall be issuable upon exercise of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional Share interest arises upon any exercise of the Warrant, the Company shall eliminate such fractional Share interest by paying Holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with Section 1.3 above) of a full Share, less (ii) the then-effective Warrant Price.

2.6 Notice/Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company, at the Company's expense, shall notify Holder in writing within a reasonable time setting forth the adjustments to the Warrant Price, Class and/or number of Shares and facts upon which such adjustment is based. The Company shall, upon written request from Holder, furnish Holder with a certificate of its Chief Financial Officer, including computations of such adjustment and the Warrant Price, Class and number of Shares in effect upon the date of such adjustment.

SECTION 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The initial Warrant Price referenced on the first page of this Warrant is not greater than the price per share at which shares of the Class were last sold and issued prior to the Issue Date hereof in an arms-length transaction in which at least $500,000 of such shares were sold.

(b) All Shares which may be issued upon the exercise of this Warrant shall, when issued, sold and delivered in accordance with the terms of and for the consideration set forth in this Warrant, and all securities, if any, issuable upon conversion of the Shares, shall, when issued, sold and delivered in accordance with the terms of and for the consideration set forth in the Restated Certificate be duly authorized, validly issued, fully paid and non-assessable, and free of any liens and encumbrances except for restrictions on transfer provided for (i) herein, (ii) under the Stockholder Agreements, or (iii) under applicable federal and state securities laws. The Company covenants that it shall at all times cause to be reserved and kept available out of its authorized and unissued capital stock such number of shares of the Class, common stock and other securities as will be sufficient to permit the exercise in full of this Warrant and the conversion of the Shares into common stock or such other securities.

(c) The Company's capitalization table attached hereto as Schedule 1 is true and complete, in all material respects, as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time to:

(a) declare any dividend or distribution upon the outstanding shares of the Class or common stock, whether in cash, property, stock, or other securities and whether or not a regular cash dividend;

(b) offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual pre-emptive rights);

(c) effect any reclassification, exchange, combination, substitution, reorganization or recapitalization of the outstanding shares of the Class;

(d) effect an Acquisition or to liquidate, dissolve or wind up; or

(e) effect an IPO;

then, in connection with each such event, the Company shall give Holder:

(1) in the case of the matters referred to in (a) and (b) above, at least seven (7) Business Days prior written notice of the earlier to occur of the effective date thereof or the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of outstanding shares of the Class will be entitled thereto) or for determining rights to vote, if any;

(2) in the case of the matters referred to in (c) and (d) above at least seven (7) Business Days prior written notice of the date when the same will take place (and specifying the date on which the holders of outstanding shares of the Class will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event); and

(3) with respect to the IPO, at least seven (7) Business Days prior written notice of the date on which the Company proposes to file its registration statement in connection therewith.

Reference is made to Section 1.6(c) whereby this Warrant will be deemed to be exercised pursuant to Section 1.2 hereof if the Company does not give written notice to Holder of a Cash/Public Acquisition as required by the terms hereof. Company will also provide information requested by Holder that is reasonably necessary to enable Holder to comply with Holder's accounting or reporting requirements.

SECTION 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER.

The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder are being acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act.

Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder is aware of the Company's business affairs and financial condition and has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

4.6 Market Stand-off Agreement. The Holder agrees that the Shares shall be subject to the Market Standoff provisions in Section 2.11 of the Investor Rights Agreement.

4.7 No Voting Rights. Holder, as a Holder of this Warrant, will not have any voting rights until the exercise of this Warrant.

SECTION 5. MISCELLANEOUS.

5.1 Term; Automatic Cashless Exercise Upon Expiration.

(a) Term. Subject to the provisions of Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before PM, time, on the Expiration Date and shall be void thereafter.

(b) Automatic Cashless Exercise upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share (or other security issuable upon the exercise hereof)

as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised, and the Company shall, within a reasonable time, deliver a certificate representing the Shares (or such other securities) issued upon such exercise to Holder.

5.2 Legends. Each certificate evidencing Shares (and each certificate evidencing securities issued upon conversion of any Shares, if any) shall be imprinted with a legend in substantially the following form:

THE SHARES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE ISSUER TO DATED , , MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issued upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned in whole or in part except in compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to or any other affiliate of Holder, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act. Additionally, the Company shall also not require an opinion of counsel if there is no material question as to the availability of Rule 144 promulgated under the Act.

5.4 Transfer Procedure. After receipt by of the executed Warrant, will transfer all of this Warrant to its parent company, . By its acceptance of this Warrant, hereby makes to the Company each of the representations and warranties set forth in Section 4 hereof and agrees to be bound by all of the terms and conditions of this Warrant as if the original Holder hereof. Subject to the provisions of Section 5.3 and upon providing the Company with written notice, and any subsequent Holder may transfer all or part of this Warrant or the Shares issued upon exercise of this Warrant (or the securities issued upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, or any subsequent Holder will give the Company notice of the portion of the Warrant and/or Shares (and/or securities issued upon conversion of the Shares, if any) being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable); and provided further, that any subsequent transferee other than shall agree in writing with the Company to be bound by all of the terms and conditions of this Warrant; provided, further, that any transfer of Shares issued upon any exercise hereof (or of any securities issued upon conversion of any such Shares) shall be subject to the provisions of the Stockholder Agreements.

Notwithstanding any contrary provision herein, at all times prior to the IPO, Holder may not, without the Company's prior written consent, transfer this Warrant or any portion hereof, or any Shares issued upon any exercise hereof, or any shares or other securities issued upon any conversion of any Shares issued upon any exercise hereof, to any person or entity who directly competes with the Company, except in connection with an Acquisition of the Company by such a direct competitor.

5.5 Notices. All notices and other communications hereunder from the Company to the Holder, or vice versa, shall be deemed delivered and effective (i) when given personally, (ii) on the third (3rd) Business Day after being mailed by first-class registered or certified mail, postage prepaid, (iii) upon actual receipt if given by facsimile or electronic mail and such receipt is confirmed in writing by the recipient, or (iv) on the first Business Day following delivery to a reliable overnight courier service, courier fee prepaid, in any case at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such Holder from time to time in accordance with the provisions of this Section 5.5. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

Attn:

,

Telephone:
Facsimile:
Email address:

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

Blueprint Medicines Corporation
Attn: Chief Financial Officer
215 First Street
Cambridge, MA 02142
Telephone:
Facsimile:
Email:

With a copy (which shall not constitute notice) to:

Goodwin Procter LLP
Attn: Kingsley L. Taft, Esq.
53 State Street
Boston, MA 02109
Telephone: (617) 570-1222
Facsimile: (617) 523-1231
Email: ktaft@goodwinprocter.com

5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated (either generally or in a particular instance and either retroactively or prospectively) only

by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Counterparts; Facsimile/Electronic Signatures. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement. Any signature page delivered electronically or by facsimile shall be binding to the same extent as an original signature page with regards to any agreement subject to the terms hereof or any amendment thereto.

5.9 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California, without giving effect to its principles regarding conflicts of law.

5.10 Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

5.11 Business Days. "**Business Day**" is any day that is not a Saturday, Sunday or a day on which is closed.

[Remainder of page left blank intentionally]
[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Warrant to Purchase Stock to be executed by their duly authorized representatives effective as of the Issue Date written above.

"COMPANY"

BLUEPRINT MEDICINES CORPORATION

By: _____

Name: _____
(Print)
Title:

"HOLDER"

_____

By: _____

Name: _____
(Print)
Title:

APPENDIX 1

NOTICE OF EXERCISE

1. The undersigned Holder hereby exercises its right to purchase shares of the Common/Series Preferred [circle one] Stock of (the "**Company**") in accordance with the attached Warrant To Purchase Stock, and tenders payment of the aggregate Warrant Price for such shares as follows:

o check in the amount of $ payable to order of the Company enclosed herewith

o Wire transfer of immediately available funds to the Company's account

o Cashless Exercise pursuant to Section 1.2 of the Warrant

o Other [Describe]

2. Please issue a certificate or certificates representing the Shares in the name specified below:

_____
Holder's Name

_____

_____
(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Section 4 of the Warrant to Purchase Stock as of the date hereof.

HOLDER:

_____

By: _____

Name: _____

Title: _____

(Date): _____

SCHEDULE 1

Company Capitalization Table

See attached

Exhibit 4.4

BLUEPRINT MEDICINES CORPORATION

SECOND AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

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SECOND AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

THIS SECOND AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT ("**Agreement**") is made as of November 7, 2014, by and among Blueprint Medicines Corporation, a Delaware corporation (the "**Company**"), and each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "**Investor**", and any Person who becomes a party to this Agreement in accordance with Sections 6.1 or 6.9 hereof.

RECITALS:

WHEREAS, the Company and certain of the Investors are parties to an Amended and Restated Investors' Rights Agreement, dated as of January 6, 2014 (the "**Prior Agreement**");

WHEREAS, the Company and certain of the Investors are entering into a Series C Convertible Preferred Stock Purchase Agreement of even date herewith (as may be amended or restated from time to time, the "**Purchase Agreement**"); and

WHEREAS, in order to induce the Company to enter into the Purchase Agreement and to induce the Investors to invest funds in the Company pursuant to the Purchase Agreement, the Investors and the Company, constituting the required votes pursuant to Section 6.6 of the Prior Agreement, hereby agree that the Prior Agreement shall be amended and restated to further govern the rights of the Investors.

NOW, THEREFORE, the parties hereby agree as follows:

1. Definitions For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who or which, directly or indirectly, controls, is controlled by, or is under common control with such specified Person, including without limitation any general partner, limited partner, manager, managing member, member, officer, director, or employee of such Person and any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person. For purposes of this definition, the term "control" when used with respect to any Person means the power to direct the management or policies of such Person, directly or indirectly, whether through ownership of voting securities, by contract or otherwise, and the terms "controlling" and "controlled" shall have meanings correlative to the foregoing. Notwithstanding anything to the contrary in (but without limiting) the foregoing, (i) each member of the Beacon Bioventures Group (as defined below) shall be deemed an Affiliate of Beacon Bioventures (as defined below) for purposes of this Agreement and (ii) an entity that is an "Affiliate" of a Wellington Investor shall not be deemed to be an "Affiliate" of any other Wellington Investor unless such entity is a Wellington Investor (and, for the avoidance of doubt, an "Affiliate" of such entity shall not be deemed an "Affiliate" of any Wellington Investor solely by virtue of being an "Affiliate" of such entity).

1.2 "**Beacon Bioventures"** Beacon Bioventures Fund III Limited Partnership.

1.3 "**Beacon Bioventures Group**" means each of: Fidelity Biosciences Corp; FMR LLC and its subsidiaries and affiliates; FIL Limited and its subsidiaries and affiliates; Fidelity International Ventures Limited; InfoTech Fund I LLC; InfoTech Fund II LLC; Impresa Fund I LLC; Impresa Fund II LLC; Impresa Fund III Limited Partnership; Impresa Capital LLC; Fidelity Ventures II Limited Partnership; Fidelity Ventures Principals II LLC; Amista Ventures III Limited Partnership; Amista Ventures Principals III Limited Partnership; Agilus Ventures IV Limited Partnership; Agilus Ventures Principals IV Limited Partnership; Agilus Ventures IV-E Limited Partnership; Agilus Ventures Principals IV-E Limited Partnership; Alimont Ventures V Limited Partnership; Beacon Bioventures Limited Partnership; Beacon Bioventures Fund II Limited Partnership; Beacon Bioventures Fund IV Limited Partnership; Devonshire Equity Partners II Fund A Limited Partnership; Fidelity Asia Ventures Fund L.P.; Asia Ventures II L.P.; Asia Ventures III L.P.; FIL India Ventures L.P.; Europe Ventures L.P.; and any other limited liability company or limited partnership owned or controlled by members of FMR LLC; and shall also include any charitable organizations.

1.4 **"Board of Directors"** means the Company's Board of Directors.

1.5 "**Certificate of Incorporation**" means the Company's Certificate of Incorporation, as such may be amended and/or restated from time to time.

1.6 "**Common Stock**" means shares of the Company's common stock, par value $0.001 per share.

1.7 "**Damages**" means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus, final prospectus or Free Writing Prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.8 "**Derivative Securities**" means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly), Common Stock, including options and warrants.

1.9 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.10 "**Excluded Registration**" means (i) a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; or (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities.

1.11 "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.12 "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.13 "**Founding Investor**" means Third Rock Ventures II, L.P.

1.14 "**Free Writing Prospectus**" means a free-writing prospectus, as defined in Rule 405 under the Securities Act.

1.15 "**GAAP**" means generally accepted accounting principles in the United States.

1.16 "**Holder**" means any holder of Registrable Securities who is a party to this Agreement.

1.17 "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein.

1.18 "**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.19 "**IPO**" means the Company's first underwritten public offering of its Common Stock under the Securities Act.

1.20 "**Key Employee**" means any executive-level employee (including division director and vice president-level positions) as well as any employee who, either alone or in concert with others, develops, invents, programs, or designs any Company Intellectual Property (as defined in the Purchase Agreement).

1.21 "**New Securities**" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities. For the avoidance of doubt and in accordance with Section 4.1(d), "New Securities" shall not include shares of Common Stock issued in an IPO.

1.22 "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.23 "**Preferred Directors"** means the Series A Directors and the Series B Director.

1.24 "**Preferred Stock**" means the Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock.

1.25 "**QPO**" shall have the meaning set forth in the Company's Certificate of Incorporation.

1.26 "**Registrable Securities**" means (i) the Common Stock issuable or issued upon conversion of the Preferred Stock; (ii) any Common Stock, or any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company, acquired by the Investors after the original date of the Prior Agreement; (iii) any Common Stock acquired by the Investors prior to the date hereof and (iv) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i), (ii), and (iii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Section 6.1, and excluding for purposes of Section 2 any shares for which registration rights have terminated pursuant to Section 2.13 of this Agreement.

1.27 "**Registrable Securities then outstanding**" means the number of shares at a point in time determined by adding the number of shares of outstanding Common Stock that are Registrable Securities at such time and the number of shares of Common Stock issuable (directly or indirectly) at such time pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.28 "**Restricted Securities**" means the securities of the Company required to bear the legend set forth in Section 2.12(b) hereof.

1.29 "**SEC**" means the Securities and Exchange Commission.

1.30 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act, or any successor provisions.

1.31 "**SEC Rule 144(b)(1)(i)**" means subsection (b)(1)(i) of SEC Rule 144 under the Securities Act as it applies to persons who have held shares for more than one (1) year.

1.32 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act, or any successor provisions.

1.33 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.34 "**Selling Expenses**" means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Section 2.6.

1.35 "**Selling Holder Counsel**" shall have the meaning assigned to it in Section 2.6.

1.36 "**Series A Directors**" means the directors designated in accordance with Sections 2.2(a)(i) and 2.2(a)(ii) of the Stockholders Agreement.

1.37 "**Series B Director**" means the director designated in accordance with Section 2.2(a)(iii) of the Stockholders Agreement.

1.38 "**Series A Preferred Stock**" means shares of the Company's Series A Preferred Stock, par value $0.001 per share.

1.39 "**Series B Preferred Stock**" means shares of the Company's Series B Preferred Stock, par value $0.001 per share.

1.40 "**Series C Preferred Stock**" means shares of the Company's Series C Preferred Stock, par value $0.001 per share.

1.41 "**Stockholders Agreement**" means the Second Amended and Restated Stockholders Agreement dated as of even date herewith, as may be amended or restated from time to time, by and among the Company, the Investors, and Key Holders (as defined therein).

1.42 "**Wellington**" shall mean Wellington Management Company, LLP, and any affiliated or successor investment advisor or subadvisor thereof to the Wellington Investors.

1.43 "**Wellington Investors**" shall mean those Investors, or permitted transferees of Registrable Securities held by Wellington Investors, that are advisory or subadvisory clients of Wellington.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.(a) Form S-1 Demand. Beginning upon the earlier of (i) five (5) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the IPO, the Company receives a request from Holders of at least twenty-five percent (25%) of the Registrable Securities then outstanding that the Company file a Form S-1 registration statement with respect to at least twenty-five percent (25%) of the Registrable Securities then outstanding, having the anticipated aggregate offering price of at least $10 million, then the Company shall (i) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.1(c) and Section 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from one or more Holders of

Registrable Securities that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least $3 million, then the Company shall (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.1(c) and Section 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Section 2.1 a certificate signed by the Company's chief executive officer stating that in the good faith judgment of the Board of Directors it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than one hundred twenty (120) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than once in any twelve (12) month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such one hundred twenty (120) day period other than an Excluded Registration.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(a) (i) during the period that is sixty (60) days before the Company's good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing its good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two (2) registrations pursuant to Section 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(b) (i) during the period that is thirty (30) days before the Company's good faith estimate of the date of filing of, and ending on a date that is ninety (90) days after the effective date of, a Company-initiated registration relating to shares to be sold by the Company, provided, that the Company is actively employing its good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two (2) registrations pursuant to Section 2.1(b) within the twelve (12) month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Section 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders

withdraw their request for such registration (other than as a result of a material adverse change to the Company), elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Section 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Section 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its Common Stock under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Section 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Section 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Section 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Section 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Initiating Holders and shall be reasonably acceptable to the Company. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Section 2.3, if the managing underwriter(s) advise the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2.2, the Company shall not be required

to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, or (ii) the number of Registrable Securities included in the offering be reduced below thirty percent (30%) of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder's securities are included in such offering. For purposes of the provision in this Section 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Section 2.1, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Section 2.3(a), fewer than fifty percent (50%) of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred

twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended for up to one hundred eighty (180) days, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus and any Free Writing Prospectus, in conformity with the requirements of the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus or Free Writing Prospectus (to the extent prepared by or on behalf of the Company) relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing, and, at the request of any such Holder, the Company will, as soon as reasonably practicable, file and furnish to all such Holders a supplement or amendment to such prospectus or Free Writing Prospectus (to the extent prepared by or on behalf of the Company) so that, as thereafter delivered to the purchasers of such Registrable Securities, such prospectus will not contain an untrue statement of a material fact or omit to state any fact necessary to make the statements therein not misleading in light of the circumstances under which they were made;

(j) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(k) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements of one counsel for the selling Holders ("**Selling Holder Counsel**") selected by the Holders of at least a majority of the Registrable Securities to be included in such registration, shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 if the registration request is subsequently withdrawn at the request of the Holders of at least a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of at least a majority of the then outstanding Registrable Securities agree to forfeit their right to one registration pursuant to Section 2.1(a) or Section 2.1(b), as the case may be; provided further that if, at the time of such withdrawal, the Holders have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information, then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration

pursuant to Section 2.1(a) or Section 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses

are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amount payable by any Holder by way of indemnity under this Section 2.8(b) exceed the proceeds from the

offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability

pursuant to this Section 2.8(e), when combined with the amounts paid or payable by such Holder pursuant to Section 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses) paid by such Holder**)**, except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Section 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective

date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company; and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of at least a majority the Registrable Securities then outstanding, enter into any agreement with any

holder or prospective holder of any securities of the Company that would allow such holder or prospective holder (i) to include such securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included or (ii) to demand registration of any securities held by such holder or prospective holder; provided that this limitation shall not apply to (a) any additional Investor who becomes a party to this Agreement in accordance with Section 6.9, or (b) the grant of registration rights equivalent to those set forth in Sections 2.1(b) and 2.2 in connection with the issuance of securities to banks, equipment lessors, or other financial institutions, or to real property lessors, in connection with entering into a debt financing, equipment leasing or real property leasing transaction that has been approved by the Board of Directors, including the approval of a majority of the Preferred Directors.

2.11 "Market Stand-off" Agreement. Each Holder hereby agrees that, if required by the managing underwriter, it will not, during the period commencing on the date of the final prospectus relating to the IPO and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days in the case of the IPO, which period may be extended upon the request of the managing underwriter for such longer period of time as is necessary, to the extent required by Financial Industry Regulatory Authority Rule 2711(f), to enable such underwriter to issue a research report or make a public appearance that relates to an earnings release or announcement by the Company within fifteen (15) days prior to or after the date that is one hundred eighty (180) days after the effective date of the registration statement relating to such offering, but in any event not to exceed two hundred ten (210) days following the effective date of the registration statement relating to such offering), (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for such offering or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The foregoing provisions of this Section 2.11 shall (a) apply only to the IPO, (b) not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement or shares acquired by the Holders in the IPO or in open market transactions on or after the effective date of the registration statement for the IPO, and (c) only be applicable to the Holders only if all officers and directors (regardless of percentage ownership) and all stockholders individually owning more than one percent (1%) of the Company's outstanding Common Stock (on a fully diluted basis, assuming the conversion of all shares of Preferred Stock and other convertible securities into shares of Common Stock and the exercise of all outstanding warrants, options and other purchase rights) are subject to the same restrictions. The underwriters in connection with such registration are intended third-party beneficiaries of this Section 2.11 and shall have the right, power, and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Section 2.11 or that are necessary to give further effect thereto; provided however, that the terms in such agreements shall not be more restrictive than the terms set forth in this Section 2.11. The Company agrees to

use its reasonable efforts to obtain the agreement of the managing underwriter to periodic early releases of portions of the securities subject to such lock-up agreements upon the request of a Holder to such early release, provided that in the event of any early release of any Holder, all Holders will be released on a pro rata basis from such agreements.

2.12 Restrictions on Transfer.

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

(b) Each certificate or instrument representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Section 2.12(c)) be stamped or otherwise imprinted with a legend substantially in the following form:

> THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.
>
> THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Section 2.12.

(c) The holder of each certificate representing Restricted Securities, by acceptance thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction or such proposed transaction is pursuant to SEC Rule 144, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale,

pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall,

be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144 or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Section 2.12. Each certificate or instrument evidencing the Restricted Securities transferred as above provided shall bear, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Section 2.12(b), except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Section 2.1 or Section 2.2 shall terminate upon the earliest to occur of:

(a) the closing of a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation; or

(b) as to any Holder, such earlier time after the IPO at which such Holder (i) can sell all shares held by it in compliance with SEC Rule 144(b)(1)(i) or (ii) holds one percent (1%) or less of the Company's outstanding Common Stock and all Registrable Securities held by such Holder (together with any Affiliate of the Holder with whom such Holder must aggregate its sales under SEC Rule 144) can be sold in any three (3) month period without registration in compliance with SEC Rule 144.

3. Information and Observer Rights.

3.1 Delivery of Financial Statements. The Company shall deliver to each Investor:

(a) as soon as practicable, but in any event within one hundred twenty (120) days after the end of each fiscal year of the Company unless a later date has been approved by the Board of Directors, including the approval of a majority of the Preferred Directors, (i) a balance sheet as of the end of such year, (ii) statements of income and of cash flows for such year, and (iii) a statement of stockholders' equity as of the end of such year, all such financial statements audited and certified by independent public accountants of nationally or regionally recognized standing selected by the Company and approved by the Board of Directors;

(b) as soon as practicable but in any event within forty-five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, unaudited statements of income and of cash flows for such fiscal quarter, and an unaudited balance sheet and a statement of stockholders' equity as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(c) as soon as practicable, but in any event within thirty (30) days of the end of each month, an unaudited income statement and statement of cash flows for such month, and an unaudited balance sheet and statement of stockholders' equity as of the end of such month, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(d) as soon as practicable, but in any event thirty (30) days before the end of each fiscal year, a budget and business plan for the next fiscal year (collectively, the "**Budget**"), approved by the Board of Directors, including the approval of a majority of the Preferred Directors, and prepared on a monthly basis, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Company;

(e) as soon as practicable, but in any event within forty-five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, a statement showing the number of shares of each class and series of capital stock and securities convertible into or exercisable for shares of capital stock outstanding at the end of the period, the Common Stock issuable upon conversion or exercise of any outstanding securities convertible or exercisable for Common Stock and the exchange ratio or exercise price applicable thereto, and the number of shares of issued stock options and stock options not yet issued but reserved for issuance, if any, all in sufficient detail as to permit the Investors to calculate their respective percentage equity ownership in the Company;

(f) such other information relating to the financial condition, business, prospects, or corporate affairs of the Company as any Investor may from time to time reasonably request; provided, however, that the Company shall not be obligated under this Section 3.1 to provide information (i) that the Company reasonably determines in good faith to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or (ii) the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

Notwithstanding anything else in this Section 3.1 to the contrary, the Company may cease providing the information set forth in this Section 3.1 during the period starting with the date

thirty (30) days before the Company's good-faith estimate of the date of filing of a registration statement if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; provided that the Company's covenants under this Section 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

3.2 Inspection. The Company shall permit each Investor, at such Investor's expense, to visit and inspect the Company's properties; examine its books of account and records; and discuss the Company's affairs, finances, and accounts with its officers, during normal business hours of the Company as may be reasonably requested by the Investor; provided, however, that the Company shall not be obligated pursuant to this Section 3.2 to provide access to any information that it reasonably and in good faith considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

3.3 Observer Rights. (i) For so long as the Founding Investor owns any of the shares of the Preferred Stock, the Company shall invite a representative of the Founding Investor to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors, and (ii) for so long as BVF Partners, L.P. ("BVF") owns any of the shares of the Preferred Stock, the Company shall invite a representative of BVF to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, in each case, that such representative shall agree to hold in confidence and trust and to act in a fiduciary manner with respect to all information so provided; and provided further, that in each case, the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest, or if the Founding Investor, BVF, or their respective representative is a competitor of the Company.

3.4 Termination of Information Rights. The covenants set forth in Sections 3.1, 3.2, and 3.3 shall terminate and be of no further force or effect (i) immediately before but subject to the consummation of the QPO, or (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event(as such term is defined in the Company's Certificate of Incorporation) pursuant to which the Investors receive only cash and/or marketable securities, whichever event occurs first.

3.5 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in

general (other than as a result of a breach of this Section 3.5 by such Investor), (b) is or has been independently developed or conceived by the Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company or was in its possession or known by such Investor without restriction prior to receipt from the Company, as can be documented by written evidence. Notwithstanding the foregoing, each Investor may disclose such proprietary or confidential information to any former partners or members who retained an economic interest in such Investor, current or prospective partner of the partnership or any subsequent partnership under common investment management, limited partner, general partner, member, management company or Affiliates of such Investor (or any employee or representative of any of the foregoing) or to any prospective purchaser of any Registrable Securities from such Investor or legal counsel, accountants or representatives for such Investor (each of the foregoing persons, a "Permitted Disclosee"), provided that such Permitted Disclosee agrees to be bound by the provisions of this Section 3.5. Furthermore, nothing contained herein shall prevent any Investor or any Permitted Disclosee from (i) entering into any business, entering into any agreement with a third party, or investing in or engaging in investment discussions with any other company (whether or not competitive with the Company), provided that such Investor or Permitted Disclosee does not, except as permitted in accordance with this Section 3.5, disclose or otherwise make use of any proprietary or confidential information of the Company in connection with such activities, or (ii) making any disclosures required by law, rule, regulation or court or other governmental order provided that such Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

4. Rights to Future Stock Issuances.

4.1 Right of First Offer. Subject to the terms and conditions of this Section 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Investor. An Investor shall be entitled to apportion the right of first offer hereby granted to it among itself and its Affiliates in such proportions as it deems appropriate.

(a) The Company shall give notice (the "**Offer Notice**") to each Investor, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(b) By notification to the Company within twenty (20) days after the Offer Notice is given, each Investor may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held, by such Investor bears to the total of Common Stock of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all Preferred Stock and other Derivative Securities), but excluding (i) Shares of Common Stock issued after the Closing to any service provider of the Corporation, including shares issued as a result of exercise of stock options and (ii) shares of Common Stock reserved for issuance, but not yet issued, pursuant to

any of the Company's equity incentive plans. At the expiration of such twenty (20) day period, the Company shall promptly notify each Investor that elects to purchase or acquire all the shares available to it (each, a "**Fully Exercising Investor**") of any other Investor's failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of shares specified above, up to that portion of the New Securities for which Investors were entitled to subscribe but that were not

subscribed for by the Investors, which is equal to the proportion that the Common Stock issued and held, or issuable upon conversion of the Preferred Stock and any other Derivative Securities then held, by such Fully Exercising Investor bears to the Common Stock issued and held, or issuable (directly or indirectly) upon conversion of the Preferred Stock and any other Derivative Securities then held, by all Fully Exercising Investors who wish to purchase such unsubscribed shares. The closing of any sale pursuant to this Section 4.1(b) shall occur within the later of ninety (90) days of the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to Section 4.1(c).

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Section 4.1(b), the Company may, during the thirty (30) day period following the expiration of the periods provided in Section 4.1(b), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Investors in accordance with this Section 4.1.

(d) The right of first offer in this Section 4.1 shall not be applicable to (i) Exempted Securities (as defined in the Company's Certificate of Incorporation), (ii) shares of Common Stock issued in the IPO and (iii) shares of Series C Preferred Stock issued to the Investors pursuant to the terms of the Purchase Agreement.

(e) The rights of an Investor to purchase New Securities under this Section 4.1 may be waived in accordance with Section 6.6 hereof; provided, however, that in the event that the rights of any Investor to purchase New Securities under this Section 4.1 are so waived in connection with a particular offering (or series of related offerings) of New Securities without such Investor's prior written consent (any such Investor, a "**Waived Investor**") and any other Investor (or any Affiliate of any other Investor) is offered the right to participate in such offering (any such participating Investor or its Affiliates, a "**Participating Investor**"), then each Waived Investor, individually or together with its Affiliates, shall also be offered the right to participate in such offering on the same terms (including price) and conditions as the other Participating Investor(s), including the right to purchase up to that portion of such New Securities as such Waived Investor would have been entitled to purchase in such offering, but for the waiver of rights under this Section 4.1 with respect thereto, in the earliest closing as such Participating Investor(s) participate and, to the extent practicable, the right to participate in discussions regarding, and the negotiation of, the terms (including price) and conditions of such offering. The Company shall provide prompt written notice of any offering in which the Waived

Investor(s) shall have the right to participate pursuant to this Section 4.1(e) no later than ten (10) days prior to the initial closing of such offering, which notice shall include the number of New Securities that such Waived Investor(s)' have the right to purchase, the anticipated date of the initial closing of such offering and copies, to the extent available, of the term sheet and/or proposed definitive agreements with respect to such offering (including all schedules and exhibits thereto) (the "**Offering Notice**"). Any Waived Investor that fails to provide written notice to the Company in accordance with Section 6.5 of this Agreement of its intent to participate in the initial closing of such offering within five (5) business days of its receipt of the Offering Notice shall be entitled to participate in a subsequent closing of such offering to be held within thirty (30) days following the initial closing, on the same terms (including price) and conditions as the other Participating Investor(s).

4.2 Termination. The covenants set forth in Section 4.1 shall terminate and be of no further force or effect (i) immediately before but subject to the consummation of the QPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation, whichever event occurs first.

5. Additional Covenants.

5.1 Insurance. The Company shall maintain and keep in effect its Directors and Officers Errors and Omissions insurance in an amount not less than as currently in effect until such time as the Board of Directors determines that such insurance should be discontinued.

5.2 Employee Agreements. Subject to the policies of any academic research institution with whom the Company's consultants and Scientific Advisory Board members may be affiliated, the Company will cause each employee, consultant and Scientific Advisory Board member to enter into a nondisclosure and proprietary rights assignment agreement, and, if permitted under the applicable law, the Company will cause each employee and consultant (to the extent the consultant has not specifically negotiated otherwise), to enter into an agreement containing at least one (1) year non-competition and non-solicitation clauses. All such agreements shall be in a form reasonably acceptable to a majority of the Preferred Directors.

5.3 Employee Vesting. Unless otherwise approved by the Board of Directors, including a majority of the Preferred Directors, all future employees and consultants of the Company who purchase, receive options to purchase, or receive awards of shares of the Company's capital stock after the Closing shall be required to execute restricted stock or option agreements, as applicable, providing for (i) vesting of shares, not faster than, over a four (4) year period, with the first twenty-five percent (25%) of such shares vesting following twelve (12) months of continued employment or service, and the remaining shares vesting in equal monthly installments over the following three (3) years, and (ii) a market stand-off provision substantially similar to that in Section 2.11. In addition, unless otherwise approved by the Board of Directors (including a majority of the Preferred Directors), the Company shall retain a "right of first refusal" on employee transfers until the Company's IPO and shall have the right to repurchase unvested shares at cost upon termination of employment of a holder of restricted stock.

5.4 Board of Directors Matters.

(a) Unless otherwise approved by a majority of the Preferred Directors, the Board of Directors shall meet four times in person per year,in accordance with an agreed-upon schedule.

(b) Each Preferred Director shall have the right, but not the obligation, to be a member of the audit and compensation committee of the Board of Directors.

(c) The Company shall reimburse the directors for all reasonable out-of-pocket expenses incurred (consistent with the Company's policies) in connection with their attendance of meetings and activities requested by the Company as a result of their role as a director of the Company; provided, however, that the Company shall not be obligated to reimburse such expenses incurred by the Series B Director that are in excess of $20,000 per year.

5.5 Indemnification.

(a) If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board of Directors as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, its Certificate of Incorporation, or elsewhere, as the case may be.

(b) The Company hereby acknowledges that one (1) or more of the directors nominated to serve on the Board of Directors by the Investors (each a "**Fund Director**") may have certain rights to indemnification, advancement of expenses and/or insurance provided by one or more of the Investors and certain of their affiliates (collectively, the "**Fund Indemnitors**"). The Company hereby agrees (a) that it is the indemnitor of first resort (i.e., its obligations to any such Fund Director are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by such Fund Director are secondary), (b) that it shall be required to advance the full amount of expenses incurred by such Fund Director and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement by or on behalf of any such Fund Director to the extent legally permitted and as required by the Certificate of Incorporation or Bylaws of the Company (or any agreement between the Company and such Fund Director), without regard to any rights such Fund Director may have against the Fund Indemnitors, and, (c) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of any such Fund Director with respect to any claim for which such Fund Director has sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of such Fund Director against the Company.

5.6 Proprietary Information and Inventions Agreements. The Company shall require all employees and consultants with access to confidential information to execute and deliver a Proprietary Information and Inventions Agreement (or an agreement containing similar terms) in substantially the form approved by the Board of Directors.

5.7 Payments to Third Rock Ventures. The Company shall reimburse Third Rock Ventures, LLC ("**TRV**"), for management assistance and other resources provided to the Company by TRV's employees, entrepreneurs-in-residence and consultants, other than time devoted by Mark Levin, Kevin Starr and Robert Tepper, following the Closing. Reimbursements shall be based upon the fair market value of the services provided to the Company pursuant to the Budget.

5.8 Reserved.

5.9 Termination of Covenants. The covenants set forth in this Section 5, except for Section 5.7, shall terminate and be of no further force or effect (i) immediately before but subject to the consummation of the QPO or (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation, whichever event occurs first.

6. Miscellaneous.

6.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is an Affiliate, partner, member, limited partner, retired partner, retired member, or stockholder of a Holder; (ii) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; or (iii) after such transfer, holds at least 500,000 shares of Registrable Securities (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations); provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Section 2.11. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate, limited partner, retired partner, member, retired member, or stockholder of a Holder; (2) who is a Holder's Immediate Family Member; or (3) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together and with those of the transferring Holder; provided further that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

6.3 Counterparts; Facsimile. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed and delivered by facsimile signature and in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices. All notices, requests, and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given, delivered and received (i) upon personal delivery to the party to be notified; (ii) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day; (iii) five (5) days after having been sent by registered or

certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on Schedule A hereto, or to the principal office of the Company and to the attention of the Chief Executive Officer, in the case of the Company, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Section 6.5. If notice is given to the Company, a copy shall also be sent to Danielle M. Lauzon, Esq. at Goodwin Procter LLP, 53 State St., Exchange Place, Boston, MA 02109. If notice is given to the Investors, a copy shall also be sent to Marc Gottschalk, Esq. at Sidley Austin LLP, 1001 Page Mill Rd #1, Palo Alto, CA 94304. If notice is given to any Wellington Investor, a copy (which shall not constitute notice) shall also be given to Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston MA 02109, facsimile: 617-526-5000, email: jason.kropp@wilmerhale.com, Attention: Jason L. Kropp.

6.6 Amendments and Waivers. Any term of this Agreement, including without limitation Section 4.1, may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the holders of at least a majority of the Registrable Securities then outstanding; provided that the Company may update Schedule A to include any additional Purchasers who become party to this Agreement in accordance with Section 6.9 or transferees who become parties to this Agreement in accordance with Section 6.1; provided further than the Company may in its sole discretion waive compliance with Section 2.12(c) (and the Company's failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Section 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be waived by any waiving party on

such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, (i) this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination, or waiver applies to all Investors in the same fashion (it being agreed that, subject to Section 4.1(e), a waiver of the provisions of Section 4 with respect to a particular transaction shall be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction); (ii) for so long as any Wellington Investor holds any shares of Preferred Stock, the definition of "Affiliate" as it relates to a Wellington Investor may not be amended, terminated or waived without the prior written consent of at least one Wellington Investor, (iii) for so long as any Wellington Investor holds any shares of Preferred Stock, the definitions of "Wellington" and "Wellington Investors" may not be amended, terminated or waived without the prior written consent of the Wellington Investors holding a majority of the Registrable Securities then outstanding and held by the Wellington Investors, and (iv) for so long as any Wellington Investor holds any Registrable Securities, Section 4.1(e) as it applies to the Wellington Investors may not be amended, terminated or waived without the prior written consent of the Wellington Investors holding a majority of the Registrable Securities then outstanding and held by the Wellington Investors. The Company shall give prompt notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination, or waiver. Except as otherwise specified in this Section 6.6, any amendment, termination, or waiver effected in accordance with this Section 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

6.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of Preferred Stock after the date hereof, the purchaser of such additional shares may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder.

6.10 Entire Agreement. This Agreement (including any Schedules and Exhibits hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

6.11 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.12 Acknowledgement. The Company acknowledges that the Investors are in the business of venture capital investing and therefore review the business plans and related proprietary information of many enterprises, including enterprises which may have products or services which compete directly or indirectly with those of the Company. Nothing in this Agreement shall preclude or in any way restrict the Investors from investing or participating in any particular enterprise whether or not such enterprise has products or services which compete with those of the Company.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

COMPANY:

BLUEPRINT MEDICINES CORPORATION

By: /s/ Jeffrey Albers
Name: Jeffrey Albers
Title: President and Chief Executive Officer

[Signature Page to Second Amended and Restated Investors' Rights Agreement]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

THIRD ROCK VENTURES II, L.P.

By: Third Rock Ventures GP, L.P.
its general partner

By: TRV GP, LLC
its general partner

By: /s/ Kevin Gillis
Name: Kevin Gillis
Title: CFO

[Signature Page to Second Amended and Restated Investors' Rights Agreement]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

BEACON BIOVENTURES FUND III LIMITED PARTNERSHIP

By its general partner: Beacon Bioventures Advisors Fund III Limited Partnership

By its general partner: Impresa Management LLC

By: /s/ Mary Bevelock Pendergast
Name: Mary Bevelock Pendergast
Title: Vice President

[Signature Page to Second Amended and Restated Investors' Rights Agreement]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

NEXTECH III ONCOLOGY LPCI

By: /s/ Rudolf Gygax
Name: Rudolf Gygax
Title: Chairman

By: /s/ Alfred Scheidegger
Name: Alfred Scheidegger
Title: Secretary

[Signature Page to Second Amended and Restated Investors' Rights Agreement]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

BIOTECHNOLOGY VALUE FUND, L.P.

By: BVF Partners L.P., its General Partner
By: BVF Inc., its General Partner

By: /s/ Mark Lampert
Name: Mark Lampert
Title: President

BIOTECHNOLOGY VALUE FUND II, L.P.

By: BVF Partners L.P., its General Partner
By: BVF Inc., its General Partner

By: /s/ Mark Lampert
Name: Mark Lampert
Title: President

INVESTMENT 10, L.L.C.

By: BVF Partners L.P., its Attorney-in-fact
By: BVF, Inc., its General Partner

By: /s/ Mark Lampert
Name: Mark Lampert
Title: President

[Signature Page to Second Amended and Restated Investors' Rights Agreement]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

CASDIN PARTNERS MASTER FUND, LP

By: Casdin Partners GP, LLC
Its: General Partner

By: /s/ Eli Casdin
Name: Eli Casdin
Title: Managing Member

[Signature Page to Second Amended and Restated Investors' Rights Agreement]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

DAVID P. SCHENKEIN 2004 REVOCABLE TRUST

By: /s/ David Schenkein
Name: David Schenkein
Title: Trustee

AMY P. SCHENKEIN 2004 REVOCABLE TRUST

By: /s/ Amy P. Schenkein
Name: Amy P. Schenkein
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

PFM HEALTHCARE MASTER FUND, LP

By: /s/ Kimberly A. Summe
Name: Kimberly A. Summe
Title: Chief Operating Officer and General Counsel

PFM HEALTHCARE OPPORTUNITIES MASTER FUND, LP

By: /s/ Kimberly A. Summe
Name: Kimberly A. Summe
Title: Chief Operating Officer and General Counsel

PARTNER INVESTMENT, LP

By: /s/ Kimberly A. Summe
Name: Kimberly A. Summe
Title: Chief Operating Officer and General Counsel

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

REDMILE CAPITAL OFFSHORE FUND, LTD.

By: /s/ Jeremy Green
Name: Jeremy Green
Title: Managing Member of the Investment Manager

REDMILE CAPITAL OFFSHORE FUND II, LTD.

By: /s/ Jeremy Green
Name: Jeremy Green
Title: Managing Member of the Investment Manager

REDMILE SPECIAL OPPORTUNITIES FUND, LTD.

By: /s/ Jeremy Green
Name: Jeremy Green
Title: Managing Member of the Investment Manager

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

TITAN PERC LTD.

By: /s/ Darren Ross
Name: Darren Ross
Title: Director

PERCEPTIVE LIFE SCIENCES MASTER FUND LTD.

By: /s/ James H. Mannix
Name: James H. Mannix
Title: C.O.O.

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

NORTH RIVER PARTNERS, L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

NORTH RIVER INVESTORS (BERMUDA) L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

SALTHILL INVESTORS (BERMUDA) L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

SALTHILL PARTNERS, L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

HAWKES BAY MASTER INVESTORS (CAYMAN) LP

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

HADLEY HARBOR MASTER INVESTORS (CAYMAN) L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

GLOBAL HEALTH CARE OPPORTUNITY LTD.

/s/ Steven M. Hoffman

By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

COWEN INVESTMENTS LLC

By: /s/ Owen Littman
Name: Owen Littman
Title: Authorized Signatory

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

RA CAPITAL HEALTHCARE FUND, LP

By: /s/ Peter Kolchinsky
Name: Peter Kolchinsky
Title: Manager

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

SABBY HEALTHCARE VOLATILITY MASTER FUND, LTD.

By: Sabby Management, LLC, its Investment Manager

By: /s/ Robert Grundstein
Name: Robert Grundstein
Title: Chief Operating Officer and General Counsel

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Investors' Rights Agreement as of the date first written above.

BOXER CAPITAL LLC

By: /s/ Aaron Davis
Name: Aaron Davis
Title: CEO and Managing Director

MVA INVESTORS LLC

By: /s/ Chris Fuglesang
Name: Chris Fuglesang
Title: President

SCHEDULE A

Name and Contact of Investors

PFM Healthcare Master Fund, L.P.

PFM Healthcare Opportunities Master Fund, L.P.

Partner Investments, L.P.

RA Capital Healthcare Fund, L.P.

North River Partners, L.P.

North River Investors (Bermuda) L.P.

Salthill Investors (Bermuda) L.P.

Salthill Partners, L.P.

Hawkes Bay Master Investors (Cayman) LP

Hadley Harbor Master Investors (Cayman) L.P.**

Global Health Care Opportunity Ltd.

Redmile Capital Offshore Fund, Ltd.

Redmile Capital Offshore Fund II, Ltd.

Redmile Special Opportunities Fund, Ltd.

Boxer Capital LLC

MVA Investors LLC

Sabby Healthcare Volatility Maser Fund, Ltd.

Titan Perc LTD

Perceptive Life Sciences Master Fund LTD

Cowen Investments LLC

Third Rock Ventures II, L.P.

Beacon Bioventures Fund III Limited Partnership

Nextech III Oncology LPCI

Biotechnology Value Fund, L.P.

Biotechnology Value Fund Ii, L.P.

Investment 10, L.L.C.

Casdin Partners Master Fund, LP

David P. Schenkein 2004 Revocable Trust

Amy Schenkein 2004 Revocable Trust

IMcK Holdings LLC

Exhibit 4.5

EXECUTION VERSION

BLUEPRINT MEDICINES CORPORATION

SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT

TABLE OF CONTENTS

SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT

THIS SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT (the "**Agreement**") is made and entered into as of November 7, 2014, by and among Blueprint Medicines Corporation, a Delaware corporation (the "**Company**"), each holder of the Company's Series A Preferred Stock, $0.001 par value per share ("**Series A Preferred Stock**") and Series B Preferred Stock, $0.001 par value per share ("**Series B Preferred Stock**" each holder of the Company's Series C Preferred Stock, $0.001 par value per share ("Series C Preferred Stock," and together with the Series A Preferred Stock and the Series B Preferred Stock, the "**Preferred Stock**") listed on Schedule A (together with any subsequent investors, or transferees, who become parties hereto as "Investors" pursuant to Sections 8.2(a) and 8.3 below and any subsequent purchasers of Series C Preferred Stock who become parties hereto as "Investors" pursuant to Section 8.2(a)) below, the "**Investors**") and those certain stockholders of the Company listed on Schedule B (together with any subsequent stockholders or option holders, or any transferees, who become parties hereto as "**Key Holders**" pursuant to Sections 8.2(b) and 8.3 below, the "**Key Holders**", and together collectively with the Investors, the "**Stockholders**").

RECITALS:

WHEREAS, the Company and certain of the Investors and the Key Holders are parties to an Amended and Restated Stockholders Agreement, dated as of January 6, 2014 (the "Prior Agreement"); and

WHEREAS, concurrently with the execution of this Agreement, the Company and the Investors are entering into a Series C Convertible Preferred Stock Purchase Agreement of even date herewith (as may be amended or restated from time to time, the "**Purchase Agreement**") providing for the sale of shares of Series C Preferred Stock.

WHEREAS, the Third Amended and Restated Certificate of Incorporation of the Company, as the same may be amended, restated or otherwise modified from time to time (the "**Restated Certificate**") provides that (a) the holders of record of the shares of the Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect three (3) directors of the Company (the "**Series A Directors**"); (b) the holders of record of the shares of the Series B Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Company (the "**Series B Director**" and together with the Series A Directors, the "**Preferred Directors**"); and (c) the holders of record of the shares of Common Stock and Preferred Stock, exclusively and voting together as a single class on an as-converted basis, shall be entitled to elect the balance of the total number of directors of the Company.

WHEREAS, in order to induce the Company to enter into the Purchase Agreement and to induce the Investors to invest funds in the Company pursuant to the Purchase Agreement, the Investors and the Company, constituting the required votes pursuant to Section 8.10 of the Prior Agreement, hereby agree that the Prior Agreement shall be amended and restated to further govern the rights of the Investors.

NOW, THEREFORE, the parties agree as follows:

1. Definitions.

"**Affiliate**" means with respect to any specified Person, any other Person who or which, directly or indirectly, controls, is controlled by or is under common control with such first Person, including without limitation any general partner, limited partner, manager, managing member, member, officer, director or employee of such Person, and any venture capital fund now or hereafter existing which is controlled by one or more general partners or managing members of, or shares the same management company with, such first Person. For purposes of this definition, the term "control" when used with respect to any Person means the power to direct the management or policies of such Person, directly or indirectly, whether through ownership of voting securities, by contract or otherwise, and the terms "controlling" and "controlled" shall have meanings correlative to the foregoing. Notwithstanding anything to the contrary in (but without limiting) the foregoing, (i) each member of the Beacon Bioventures Group (as defined below) shall be deemed an Affiliate of Beacon Bioventures (as defined below) for purposes of this Agreement, and (ii) (A) each Wellington Investor shall be deemed to be an "Affiliate" of each other Wellington Investor, and (B) an entity that is an "Affiliate" of a Wellington Investor shall not be deemed to be an "Affiliate" of any other Wellington Investor unless such entity is a Wellington Investor (and, for the avoidance of doubt, an "Affiliate" of such entity shall not be deemed an "Affiliate" of any Wellington Investor solely by virtue of being an "Affiliate" of such entity).

"**Beacon Bioventures Group**" means each of: Fidelity Biosciences Corp; FMR LLC and its subsidiaries and affiliates; FIL Limited and its subsidiaries and affiliates; Fidelity International Ventures Limited; InfoTech Fund I LLC; InfoTech Fund II LLC; Impresa Fund I LLC; Impresa Fund II LLC; Impresa Fund III Limited Partnership; Impresa Capital LLC; Fidelity Ventures II Limited Partnership; Fidelity Ventures Principals II LLC; Amista Ventures III Limited Partnership; Amista Ventures Principals III Limited Partnership; Agilus Ventures IV Limited Partnership; Agilus Ventures Principals IV Limited Partnership; Agilus Ventures IV-E Limited Partnership; Agilus Ventures Principals IV-E Limited Partnership; Alimont Ventures V Limited Partnership; Beacon Bioventures Limited Partnership; Beacon Bioventures Fund II Limited Partnership; Beacon Bioventures Fund IV Limited Partnership; Devonshire Equity Partners II Fund A Limited Partnership; Fidelity Asia Ventures Fund L.P.; Asia Ventures II L.P., Asia Ventures III L.P.; FIL India Ventures L.P.; Europe Ventures L.P.; and any other limited liability company or limited partnership owned or controlled by members of FMR LLC; and shall also include any charitable organizations.

"Board" means the Board of Directors of the Company.

"**Capital Stock**" means (a) shares of Common Stock and Preferred Stock (whether now outstanding or hereafter issued in any context), (b) shares of Common Stock issued or issuable upon conversion of Preferred Stock and (c) shares of Common Stock issued or issuable upon exercise or conversion, as applicable, of stock options, warrants or other convertible securities of the Company, in each case now owned or subsequently acquired by any Key Holder, any Investor, or their respective successors or permitted transferees or permitted assigns. For purposes of the number of shares of Capital Stock held by an Investor or Key Holder (or any other calculation based thereon), all shares of Preferred Stock shall be deemed to have been converted into Common Stock at the then applicable conversion ratio.

"**Common Stock**" means shares of Common Stock of the Company, $0.001 par value per share.

"**Company Notice**" means written notice, in compliance with Section 8.9 hereof, from the Company notifying the selling Key Holders that the Company intends to exercise its Right of First Refusal as to some or all of the Transfer Stock with respect to any Proposed Key Holder Transfer.

"**Financing Event**" means either: (i) the creation and issuance of any debt security; or (ii) the creation and issuance of shares of any other security of the Company and securities convertible into or exercisable for any equity security of the Company, regardless of whether such security has rights senior to, on parity with, or junior to the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock.

"**Founding Investor**" means Third Rock Ventures II, L.P. ("**TRV**").

"**Investor Notice**" means written notice, in compliance with Section 8.9 hereof, from an Investor notifying the Company and the selling Key Holder that such Investor intends to exercise its Secondary Refusal Right as to a portion of the Transfer Stock with respect to any Proposed Key Holder Transfer.

"**Investors**" means the Persons named on Schedule A hereto, each Person to whom the rights of an Investor are assigned pursuant to Section 8.3, each Person who hereafter becomes a signatory to this Agreement pursuant to Section 8.2(a) and any one of them, as the context may require.

"**Key Holders**" means the Persons named on Schedule B hereto, each Person to whom the rights of a Key Holder are assigned pursuant to Section 5.1, each Person who hereafter becomes a signatory to this Agreement pursuant to Section 8.2(b) or 8.3 and any one of them, as the context may require.

"**Person**" or "**Persons**" means an individual, firm, corporation, partnership, association, limited liability company, trust or any other entity.

"**Preferred Stock**" means collectively, all shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock.

"**Proposed Key Holder Transfer**" means any assignment, sale, offer to sell, pledge, mortgage, hypothecation, encumbrance, disposition of or any other like transfer or encumbering of any Transfer Stock (or any interest therein) proposed by any of the Key Holders.

"**Proposed Transfer Notice**" means written notice from a Key Holder setting forth the terms and conditions of a Proposed Key Holder Transfer.

"**Prospective Transferee**" means any Person to whom a Key Holder proposes to make a Proposed Key Holder Transfer.

"**Right of Co-Sale**" means the right, but not an obligation, of an Investor to participate in a Proposed Key Holder Transfer on the terms and conditions specified in the Proposed Transfer Notice.

"**Right of First Refusal**" means the right, but not an obligation, of the Company, or its permitted transferees or permitted assigns, to purchase some or all of the Transfer Stock with respect to a Proposed Key Holder Transfer, on the terms and conditions specified in the Proposed Transfer Notice.

"**Sale of the Company**" means a Stock Sale or a transaction that qualifies as a "**Deemed Liquidation Event**" as such term is defined in the Restated Certificate.

"**Secondary Notice**" means written notice from the Company notifying the Investors and the selling Key Holder that the Company does not intend to exercise its Right of First Refusal as to all shares of Transfer Stock with respect to any Proposed Key Holder Transfer.

"**Secondary Refusal Right**" means the right, but not an obligation, of each Investor to purchase up to its pro rata portion (based upon the total number of shares of Capital Stock then held by all Investors) of any Transfer Stock not purchased pursuant to the Right of First Refusal, on the terms and conditions specified in the Proposed Transfer Notice.

"**Selling Investors**" means the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, voting together as a single class on an as-converted basis, who approve in writing a Sale of the Company or a Financing Event.

"**Stock Sale**" means the closing of the transfer (whether by merger, consolidation or otherwise), in one transaction or series of related transactions, to a Person or group of affiliated Persons (other than an underwriter of the Company's securities), of the Company's securities, if after such closing, such Person or group of affiliated Persons would hold fifty percent (50%) or more of the outstanding voting stock of the Company (or the surviving or acquiring entity).

"**Transfer Stock**" means shares of Capital Stock owned by a Key Holder, or issued to a Key Holder after the date hereof (including, without limitation, in connection with any stock split, stock dividend, recapitalization, reorganization, or the like), but does not include any shares of Preferred Stock or Common Stock issued or issuable upon conversion of Preferred Stock.

"**Undersubscription Notice**" means written notice from an Investor notifying the Company and the selling Key Holder that such Investor intends to exercise its Undersubscription Option.

"**Undersubscription Option**" means the option, but not the obligation, of each Exercising Investor to purchase all or any portion of the Transfer Stock not purchased pursuant to the Right of First Refusal or the Secondary Refusal Right, on the terms and conditions specified in the Proposed Transfer Notice.

"Wellington" shall mean Wellington Management Company, LLP, and any affiliated or successor investment advisor or subadvisor thereof to the Wellington Investors.

"Wellington Investors" shall mean those Investors, or permitted transferees of shares of Series C Preferred Stock (or shares of Common Stock issued upon conversion thereof) held by Wellington Investors, that are advisory or subadvisory clients of Wellington.

2. Voting Provisions Regarding Board; Common Stock.

2.1 Size of the Board. Except as otherwise provided in the Restated Certificate, each Stockholder agrees to vote, or cause to be voted, all Shares (as defined below) owned by such Stockholder, or over which such Stockholder has voting control, from time to time and at all times, in whatever manner as shall be necessary to ensure that the size of the Board shall be set and remain at eight (8) directors. For purposes of this Agreement, the term "**Shares**" shall mean and include any securities of the Company the holders of which are entitled to vote for members of the Board, including without limitation, all shares of Common Stock, Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock by whatever name called, now owned or subsequently acquired by a Stockholder, however acquired, whether through stock splits, stock dividends, reclassifications, recapitalizations, similar events or otherwise.

2.2 Board Composition. Each Stockholder agrees to vote, or cause to be voted, all Shares owned by such Stockholder, or over which such Stockholder has voting control, from time to time and at all times, in whatever manner as shall be necessary to ensure that at each annual or special meeting of stockholders at which an election of directors is held or pursuant to any written consent of the stockholders, the following persons shall be elected to the Board:

(a) (i) At each election of directors in which the holders of the Series A Preferred Stock, voting as a separate class, are entitled to elect three (3) directors of the Company, two (2) individuals designated as Series A Directors by the Founding Investor, for so long as such Founding Investor holds any shares of Preferred Stock, one of whom shall initially be Alexis Borisy and the other seat shall initially be vacant, (ii) at each election of directors in which the holders of the Series A Preferred Stock, voting as a separate class, are entitled to elect three (3) directors of the Company, one (1) individual designated as Series A Director by Beacon Bioventures Fund III Limited Partnership ("**Beacon Bioventures**"), for so long as Beacon Bioventures holds any shares of Preferred Stock, which individual shall initially be Stephen Knight, and (iii) at each election of directors in which the holders of the Series B Preferred Stock, voting as a separate class, are entitled to elect one (1) director of the Company, such director designated by Nextech III Oncology LPCI ("**Nextech**"), for so long as Nextech holds any shares of Preferred Stock, which individual shall initially be Thilo Schroeder.

(b) At each election of directors in which the holders of the Common Stock, voting as a separate class, are entitled to elect one (1) director of the Company, the Chief Executive Officer of the Company (the "**CEO Director**") shall serve as their designee, which individual shall initially be Jeffrey W. Albers, provided that if for any reason the CEO Director shall cease to serve as the Chief Executive Officer of the Company, each of the Stockholders shall promptly vote their respective Shares (i) to remove the former Chief Executive Officer from the Board if such person has not resigned as a member of the Board and (ii) to elect such person's replacement as Chief Executive Officer of the Company as the new CEO Director; and

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(c) At each election of the remaining directors in which the holders of the Preferred Stock and Common Stock, voting together on an as-converted basis, are entitled to elect directors of the Company, three (3) individuals not otherwise an Affiliate of the Company or of any Investor: (i) one (1) of whom is designated by the Investors holding a majority of the outstanding shares of Preferred Stock, voting together as a single class on an as-converted basis, and (ii) two (2) of whom are designated by the Stockholders holding a majority of the outstanding shares of Common Stock and Preferred Stock, voting together as a single class on an as-converted basis and is acceptable to a majority of the Preferred Directors; provided, however, that David Schenkein may serve as a director designated pursuant to this Section 2.2(c). Initially, Daniel S. Lynch shall be designated pursuant to this Section 2.2(c)(i), and Nick Lydon and David Schenkein shall be designated pursuant to this Section 2.2(c)(ii).

(d) To the extent that any of clauses (a) through (c) above shall not be applicable, any member of the Board who would otherwise have been designated in accordance with the terms thereof shall instead be voted upon by all the stockholders of the Company entitled to vote thereon in accordance with, and pursuant to, the Restated Certificate.

2.3 Failure to Designate a Board Member. In the absence of any designation from the Persons or groups with the right to designate a director as specified above, the director previously designated by them and then serving shall be reelected if still eligible and willing to serve as provided herein. Until such designee is chosen, the remaining members of the Board shall continue to operate as a fully functioning Board.

2.4 Removal of Board Members. Each Stockholder also agrees to vote, or cause to be voted, all Shares owned by such Stockholder, or over which such Stockholder has voting control, from time to time and at all times, in whatever manner as shall be necessary to ensure that:

(a) no director elected pursuant to Sections 2.2 or 2.3 of this Agreement may be removed from office other than for cause unless (i) such removal is directed or approved by the affirmative vote of the Person, or of the holders of the requisite number of shares of stock, entitled under Section 2.2 to designate that director or (ii) the Person(s) originally entitled to designate or approve such director pursuant to Section 2.2 is no longer so entitled to designate or approve such director; and

(b) any vacancies created by the resignation, removal or death of a director elected pursuant to Sections 2.2 or 2.3 shall be filled pursuant to the provisions of this Section 2.

All Stockholders agree to execute any written consents required to perform the obligations of this Agreement, and the Company agrees at the request of any party entitled to designate directors to call a special meeting of stockholders for the purpose of electing directors.

2.5 No Liability for Election of Recommended Directors. No party, nor any Affiliate of any such party, shall have any liability as a result of designating a Person for election as a director for any act or omission by such designated Person in his or her capacity as a director of the Company, nor shall any party have any liability as a result of voting for any such designee in accordance with the provisions of this Agreement.

2.6 Vote to Increase Authorized Common Stock. Each Stockholder agrees to vote or cause to be voted all Shares owned by such Stockholder, or over which such Stockholder has voting control, from time to time and at all times, in whatever manner as shall be necessary to increase the number of authorized shares of Common Stock from time to time to ensure that there will be sufficient shares of Common Stock available for conversion of all of the shares of Preferred Stock outstanding at any given time.

3. Drag-Along Right

3.1 Actions to be Taken. In the event that the Selling Investors and a majority of the Board including a majority of the Preferred Directors, approve in writing a Sale of the Company or a Financing Event, specifying that this Section 3 shall apply to such transaction, then each Stockholder hereby agrees:

(a) if such transaction requires stockholder approval, with respect to all Shares that such Stockholder owns or over which such Stockholder otherwise exercises voting power, to vote (in person, by proxy or by action by written consent, as applicable) all Shares in favor of, and adopt, such Sale of the Company or Financing Event (together with any related amendment to the Restated Certificate required in order to implement such Sale of the Company or Financing Event) and to vote in opposition to any and all other proposals that could delay or impair the ability of the Company to consummate such Sale of the Company or Financing Event;

(b) if such transaction is a Stock Sale, to sell the same proportion of shares of capital stock of the Company beneficially held by such Stockholder as is being sold by the Selling Investors to the Person to whom the Selling Investors propose to sell their Shares, and, except as permitted in Section 3.2 below, on the same terms and conditions as the Selling Investors;

(c) to execute and deliver all related documentation and take such other action in support of the Sale of the Company or Financing Event as shall reasonably be requested by the Company or the Selling Investors in order to carry out the terms and provision of this Section 3, including without limitation executing and delivering instruments of conveyance and transfer, and any purchase agreement, merger agreement, indemnity agreement, escrow agreement, consent, waiver, governmental filing, share certificates duly endorsed for transfer (free and clear of impermissible liens, claims and encumbrances) and any similar or related documents, as applicable;

(d) not to deposit, and to cause their Affiliates not to deposit, except as provided in this Agreement, any Shares of the Company owned by such party or Affiliate in a voting trust or subject any Shares to any arrangement or agreement with respect to the voting of such Shares, unless specifically requested to do so by the acquiror in connection with the Sale of the Company;

(e) to refrain from exercising any dissenters' rights or rights of appraisal under applicable law at any time with respect to such Sale of the Company;

(f) that, upon the election of the Company in its sole discretion and without any further action required on the part of such Stockholder, unless otherwise agreed by the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, voting together as a single class on an as-converted basis, each stock option, warrant, and other security then exercisable for shares of capital stock of the Company (collectively, "**Exercisable Securities**" and individually, an "**Exercisable Security**"), shall, if such Stockholder has not otherwise exercised the vested portion of such Exercisable Security prior to the closing of a Sale of the Company (or any such Exercisable Security contains a vesting acceleration provision that becomes effective immediately prior to the closing of a Sale of the Company), be cancelled in connection with a Sale of the Company in exchange for an amount of cash or such other consideration payable in connection with such Sale of the Company with an aggregate value equal to (A) the consideration payable in respect of each share of the class or series of capital stock underlying such Exercisable Security in connection with such Sale of the Company *multiplied by* the number of shares of such class or series of capital stock underlying such Exercisable Security that remain unexercised as of the closing of such Sale of the Company minus (B) the exercise price per share for such Exercisable Security *multiplied by* the number of shares of such class or series of capital stock underlying such Exercisable Security that remain unexercised as of the closing of such Sale of the Company, provided that the result of such calculation is a positive number, which payment shall be subject to the terms and conditions generally applicable to the payment of the consideration in connection with such Sale of the Company, including indemnification obligations, escrows, earnouts, contingency payments and purchase price adjustments; and

(g) if the consideration to be paid in exchange for the Shares pursuant to this Section 3 in connection with such Sale of the Company includes any securities and due receipt thereof by any Stockholder would require under applicable law (x) the registration or qualification of such securities or of any person as a broker or dealer or agent with respect to such securities or (y) the provision to any Stockholder of any information other than such information as a prudent issuer would generally furnish in an offering made solely to "accredited investors" as defined in Regulation D promulgated under the Securities Act of 1933, as amended, (the "**Securities Act**") the Company may cause to be paid to any such Stockholder in lieu thereof, against surrender of the Shares which would have otherwise been sold by such Stockholder, an amount in cash equal to the fair value (as determined in good faith by the Company) of the securities which such Stockholder would otherwise receive as of the date of the issuance of such securities in exchange for the Shares.

3.2 Exceptions. Notwithstanding the forgoing, a Stockholder will not be required to comply with Section 3.1 above in connection with any proposed Sale of the Company (the "**Proposed Sale**") unless:

(a) any representations and warranties to be made by such Stockholder in connection with the Proposed Sale are limited to representations and warranties related to authority, ownership and the ability to convey title to such Shares, including but not limited to representations and warranties that (i) the Stockholder holds all right, title and interest in and to the Shares such Stockholder purports to hold, free and clear of all liens and encumbrances, (ii) the obligations of the Stockholder in connection with the transaction have been duly authorized,

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if applicable, (iii) the documents to be entered into by the Stockholder have been duly executed by the Stockholder and delivered to the acquirer and are enforceable against the Stockholder in accordance with their respective terms and (iv) neither the execution and delivery of documents to be entered into in connection with the transaction, nor the performance of the Stockholder's obligations thereunder, will cause a breach or violation of the terms of any agreement, law or judgment, order or decree of any court or governmental agency;

(b) the Stockholder shall not be liable for the inaccuracy of any representation or warranty made by any other Person in connection with the Proposed Sale, other than the Company;

(c) the liability for indemnification, if any, of such Stockholder in the Proposed Sale and for the inaccuracy of any representations and warranties made by the Company in connection with such Proposed Sale, is several and not joint with any other Person, and is pro rata in proportion to the amount of consideration paid to such Stockholder in connection with such Proposed Sale (in accordance with the provisions of the Restated Certificate);

(d) liability shall be limited to such Stockholder's pro rata share (determined in proportion to proceeds received by such Stockholder in connection with such Proposed Sale in accordance with the provisions of the Restated Certificate) of a negotiated aggregate indemnification amount that applies equally to all Stockholders but that in no event exceeds the amount of consideration actually paid to such Stockholder in connection with such Proposed Sale, except with respect to claims related to fraud by such Stockholder, the liability for which need not be limited as to such Stockholder;

(e) upon the consummation of the Proposed Sale, (i) each holder of each series of the Company's Preferred Stock and each holder of Common Stock will, subject to Section 3.1(g), receive the same form of consideration for their shares of Common Stock and Preferred Stock, (ii) each holder of

a series of Preferred Stock will receive the same amount of consideration per share of such series of Preferred Stock, (iii) each holder of Common Stock will receive the same amount of consideration per share of Common Stock, and (iv) unless the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, voting together as a single class on an as-converted basis, elect otherwise by written notice given to the Company at least ten (10) days prior to the effective date of any such Proposed Sale, the aggregate consideration receivable by all holders of the Preferred Stock and Common Stock shall be allocated among the holders of Preferred Stock and Common Stock on the basis of the relative liquidation preferences to which the holders of each respective series of Preferred Stock and the holders of Common Stock are entitled in a Deemed Liquidation Event (assuming for this purpose that the Proposed Sale is a Deemed Liquidation Event) in accordance with the Restated Certificate; and

(f) subject to clause (e) above, requiring the same form of consideration to be received by the holders of the Company's Common Stock and Preferred Stock, if any holders of any capital stock of the Company are given an option as to the form and amount of consideration to be received as a result of the Proposed Sale, all holders of such capital stock will be given the same option.

3.3 Restrictions on Sales of Control of the Company. No Stockholder shall be a party to any Stock Sale unless all holders of Preferred Stock are allowed to participate in such transaction and the consideration received pursuant to such transaction is allocated among the parties thereto in the manner specified in the Restated Certificate (as if such transaction were a Deemed Liquidation Event), unless the holders of at least a majority of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, voting together as a single class on an as-converted basis, elect otherwise by written notice given to the Company at least ten (10) days prior to the effective date of any such transaction or series of related transactions.

3.4 Grant of Proxy. Upon the failure of any Key Holder to vote its Shares in accordance with the terms of this Agreement, such Key Holder hereby grants to a stockholder designated by the Board a proxy coupled with an interest in all Shares owned by such Stockholder, which proxy shall be irrevocable until this Agreement terminates pursuant to its terms or this Section 3.4 is amended to remove such grant of proxy in accordance with Section 8.10 hereof, to vote all such Shares in the manner provided in Sections 2 and 3 hereof.

4. Right of First Refusal and Right of Co-Sale.

4.1 Right of First Refusal.

(a) Grant. Subject to the terms of Section 5 below, each Key Holder hereby unconditionally and irrevocably grants to the Company a Right of First Refusal to purchase all or any portion of Transfer Stock that such Key Holder may propose to transfer in a Proposed Key Holder Transfer, on the same terms and conditions (including price and form of consideration), subject to Section 4.1(e), as those offered to the Prospective Transferee.

(b) Notice. Each Key Holder proposing to make a Proposed Key Holder Transfer must deliver a Proposed Transfer Notice to the Company and each Investor not later than thirty (30) days prior to the consummation of such Proposed Key Holder Transfer. Such Proposed Transfer Notice shall contain the material terms and conditions (including price and form of consideration) of the Proposed Key Holder Transfer and the identity of the Prospective Transferee and the intended date of the Proposed Key Holder Transfer. To exercise its Right of First Refusal under this Section 4, the Company must deliver a Company Notice to the selling Key Holder within fifteen (15) days after delivery of the Proposed Transfer Notice. In the event of a conflict between this Agreement and any other agreement that may have been entered into by a Key Holder with the Company that contains a preexisting right of first refusal, the Company and the Key Holder acknowledge and agree that the terms of this Agreement shall control and the preexisting right of first refusal shall be deemed satisfied by compliance with this Section 4.1.

(c) Grant of Secondary Refusal Right to Investors. Subject to the terms of Section 5 below, each Key Holder hereby unconditionally and irrevocably grants to the Investors, on a pro rata basis, a Secondary Refusal Right to purchase all or any portion of the Transfer Stock not purchased by the Company pursuant to the Right of First Refusal, as provided in this Section 4.1(c). If the Company does not intend to exercise its Right of First Refusal with respect to all Transfer Stock subject to a Proposed Key Holder Transfer, the Company must

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deliver a Secondary Notice to the selling Key Holder and to each Investor to that effect no later than fifteen (15) days after the selling Key Holder delivers the Proposed Transfer Notice to the Company. To exercise its Secondary Refusal Right, an Investor must deliver an Investor Notice to the selling Key Holder and the Company within ten (10) days after the Company's deadline for its delivery of the Secondary Notice as provided in the preceding sentence.

(d) Undersubscription of Transfer Stock. If options to purchase have been exercised by the Company and the Investors with respect to some but not all of the Transfer Stock by the end of the 10-day period specified in the last sentence of Section 4.1(c) (the "**Investor Notice Period**"), then the Company shall, immediately after the expiration of the Investor Notice Period, send written notice (the "**Company Undersubscription Notice**") to those Investors who fully exercised their Secondary Refusal Right within the Investor Notice Period (the "**Exercising Investors**"). Each Exercising Investor shall, subject to the provisions of this Section 4.1(d), have an Undersubscription Option to purchase all or any part of the balance of any such remaining unsubscribed shares of Transfer Stock on the terms and conditions set forth in the Proposed Transfer Notice. To exercise such Undersubscription Option, an Exercising Investor must deliver an Undersubscription Notice to the selling Key Holder and the Company within ten (10) days after the expiration of the Investor Notice Period. In the event there are two or more such Exercising Investors that choose to exercise the Undersubscription Option for a total number of remaining shares in excess of the number available, the remaining shares available for purchase under this Section 4.1(d) shall be allocated to such Exercising Investors pro rata based on the number of shares of Transfer Stock such Exercising Investors have elected to purchase pursuant to the Secondary Refusal Right (without giving effect to any shares of Transfer Stock that any such Exercising Investor has elected to purchase pursuant to the Company Undersubscription Notice). If the Undersubscription Options to purchase the remaining shares are exercised in full by the Exercising Investors, the Company shall immediately notify all of the Exercising Investors and the selling Key Holder of that fact.

(e) Consideration; Closing. If the consideration proposed to be paid for the Transfer Stock is in property, services or other non-cash consideration, the fair market value of the consideration shall be as determined in good faith by the Board and as set forth in the Company Notice. If the Company or any Investor cannot for any reason pay for the Transfer Stock in the same form of non-cash consideration, the Company or such Investor may pay the cash value equivalent thereof, as determined in good faith by the Board and as set forth in the Company Notice. The closing of the purchase of Transfer Stock by the Company and the Investors shall take place, and all payments from the Company and the Investors shall have been delivered to the selling Key Holder, by the later of (i) the date specified in the Proposed Transfer Notice as the intended date of the Proposed Key Holder Transfer and (ii) thirty (30) days after delivery of the Proposed Transfer Notice.

4.2 Right of Co-Sale.

(a) Exercise of Right. If any Transfer Stock subject to a Proposed Key Holder Transfer is not purchased pursuant to Section 4.1 above and thereafter is to be sold to a Prospective Transferee, each respective Investor may elect to exercise its Right of Co-Sale and participate on a pro rata basis in the Proposed Key Holder Transfer as set forth in Section 4.2(b)

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below and otherwise on the same terms and conditions specified in the Proposed Transfer Notice (provided that if an Investor wishes to sell Preferred Stock, the price set forth in the Proposed Transfer Notice shall be appropriately adjusted based on the conversion ratio of the Preferred Stock into Common Stock). Each Investor who desires to exercise its Right of Co-Sale must give the selling Key Holder written notice to that effect within fifteen (15) days after the deadline for delivery of the Secondary Notice described above, and upon giving such notice such Investor shall be deemed to have effectively exercised the Right of Co-Sale.

(b) Shares Includable. Each Investor who timely exercises such Investor's Right of Co-Sale by delivering the written notice provided for above in Section 4.2(a) may include in the Proposed Key Holder Transfer all or any part of such Investor's Capital Stock equal to the product obtained by multiplying (i) the aggregate number of shares of Transfer Stock subject to the Proposed Key Holder Transfer (excluding shares purchased by the Company or the Investors pursuant to the Right of First Refusal, the Secondary Refusal Right or the Undersubscription Option, as applicable) by (ii) a fraction, the numerator of which is the number of shares of Capital Stock owned by such Investor immediately before consummation of the Proposed Key Holder Transfer and the denominator of which is the total number of shares of Capital Stock owned, in the aggregate, by all Investors immediately prior to the consummation of the Proposed Key Holder Transfer, plus the number of shares of Transfer Stock held by the selling Key Holder. To the extent one or more of the Investors exercise such right of participation in accordance with the terms and conditions set forth herein, the number of shares of Transfer Stock that the selling Key Holder may sell in the Proposed Key Holder Transfer shall be correspondingly reduced.

(c) Delivery of Certificates. Each Investor shall effect its participation in the Proposed Key Holder Transfer by delivering to the transferring Key Holder, no later than fifteen (15) days after such Investor's exercise of the Right of Co-Sale, one or more stock certificates, properly endorsed for transfer to the Prospective Transferee, representing:

(i) the number of shares of Common Stock that such Investor elects to include in the Proposed Key Holder Transfer; or

(ii) the number of shares of Preferred Stock that is at such time convertible into the number of shares of Common Stock that such Investor elects to include in the Proposed Key Holder Transfer; provided, however, that if the Prospective Transferee objects to the delivery of convertible Preferred Stock in lieu of Common Stock, such Investor shall first convert the Preferred Stock into Common Stock and deliver Common Stock as provided above. The Company agrees to make any such conversion concurrent with and contingent upon the actual transfer of such shares to the Prospective Transferee.

(d) Purchase Agreement. The parties hereby agree that the terms and conditions of any sale pursuant to this Section 4.2 will be memorialized in, and governed by, a written purchase and sale agreement with customary terms and provisions for such a transaction and the parties further covenant and agree to enter into such an agreement as a condition precedent to any sale or other transfer pursuant to this Section 4.2.

(e) Deliveries. Each stock certificate an Investor delivers to the selling Key Holder pursuant to Section 4.2(c) above will be transferred to the Prospective Transferee against payment therefor in consummation of the sale of the Transfer Stock pursuant to the terms and conditions specified in the Proposed Transfer Notice and the purchase and sale agreement, and the selling Key Holder shall concurrently therewith remit or direct payment to each Investor the portion of the sale proceeds to which such Investor is entitled by reason of its participation in such sale. If any Prospective Transferee or Transferees refuse(s) to purchase securities subject to the Right of Co-Sale from any Investor exercising its Right of Co-Sale hereunder, no Key Holder may sell any Transfer Stock to such Prospective Transferee or Transferees unless and until, simultaneously with such sale, such Key Holder purchases all securities subject to the Right of Co-Sale from such Investor on the same terms and conditions (including the proposed purchase price) as set forth in the Proposed Transfer Notice.

(f) Additional Compliance. If any Proposed Key Holder Transfer is not consummated within forty-five (45) days after receipt of the Proposed Transfer Notice by the Company, the Key Holders proposing the Proposed Key Holder Transfer may not sell any Transfer Stock unless they first comply in full with each provision of this Section 4. The exercise or election not to exercise any right by any Investor hereunder shall not adversely affect its right to participate in any other sales of Transfer Stock subject to this Section 4.2.

4.3 Effect of Failure to Comply.

(a) Transfer Void; Equitable Relief. Any Proposed Key Holder Transfer not made in compliance with the requirements of this Agreement shall be null and void ab initio, shall not be recorded on the books of the Company or its transfer agent and shall not be recognized by the Company. Each party hereto acknowledges and agrees that any breach of this Agreement would result in substantial harm to the other parties hereto for which monetary damages alone could not adequately compensate. Therefore, the parties hereto unconditionally and irrevocably agree that any non-breaching party hereto shall be entitled to seek protective orders, injunctive relief and other remedies available at law or in equity (including, without limitation, seeking specific performance or the rescission of purchases, sales and other transfers of Transfer Stock not made in strict compliance with this Agreement).

(b) Violation of Right of First Refusal or Secondary Refusal Right. If any Key Holder becomes obligated to sell any Transfer Stock to the Company or any Investor under this Agreement and fails to deliver such Transfer Stock in accordance with the terms of this Agreement, the Company and/or such Investor may, at its option, in addition to all other remedies it may have, send to such Key Holder the purchase price for such Transfer Stock as is herein specified and transfer to the name of the Company or such Investor (or request that the Company effect such transfer in the name of an Investor) on the Company's books the certificate or certificates representing the Transfer Stock to be sold.

(c) Violation of Co-Sale Right. If any Key Holder purports to sell any Transfer Stock in contravention of the Right of Co-Sale (a "**Prohibited Transfer**"), each Investor who desires to exercise its Right of Co-Sale under Section 4.2 may, in addition to such remedies as may be available by law, in equity or hereunder, require such Key Holder to purchase from such Investor the type and number of shares of Capital Stock that such Investor

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would have been entitled to sell to the Prospective Transferee under Section 4.2 had the Prohibited Transfer been effected pursuant to and in compliance with the terms of Section 4.2. The sale will be made on the same terms and subject to the same conditions as would have applied had the Key Holder not made the Prohibited Transfer, except that the sale (including, without limitation, the delivery of the purchase price) must be made within ninety (90) days after the Investor learns of the Prohibited Transfer, as opposed to the timeframe proscribed in Section 4.2. Such Key Holder shall also reimburse each Investor for any and all reasonable and documented out-of-pocket fees and expenses, including reasonable legal fees and expenses, incurred pursuant to the exercise or the attempted exercise of the Investor's rights under Section 4.2.

5. Exempt Transfers.

5.1 Exempted Transfers. Notwithstanding the foregoing or anything to the contrary herein, the provisions of Sections 4.1 and 4.2 shall not apply: (a) in the case of a Key Holder that is an entity, upon a transfer by such Key Holder to its stockholders, members, partners or other equity holders, (b) to a repurchase of Transfer Stock from a Key Holder by the Company at a price no greater than that originally paid by such Key Holder for such Transfer Stock and pursuant to an agreement containing vesting and/or repurchase provisions approved by a majority of the Board, or (c) in the case of a Key Holder that is a natural person, upon a transfer of Transfer Stock by such Key Holder made for bona fide estate planning purposes, either during his or her lifetime or on death by will or intestacy to his or her spouse, child (natural or adopted), parent, or any other direct lineal descendant or ancestor of such Key Holder (or his or her spouse) (all of the foregoing collectively referred to as "**family members**"), or any other Person approved by the Board, or any custodian or trustee of any trust, partnership or limited liability company for the benefit of, or the ownership interests of which are owned wholly by, such Key Holder or any such family members; provided that in the case of clauses (a) and (c), the Key Holder shall deliver prior written notice to the Investors of such pledge, gift or transfer and such shares of Transfer Stock shall at all times remain subject to the terms and restrictions set forth in this Agreement and such transferee shall, as a condition to such issuance, deliver a counterpart signature page to this Agreement as confirmation that such transferee shall be bound by all the terms and conditions of this Agreement as a Key Holder (but only with respect to the securities so transferred to the transferee), including the obligations of a Key Holder with respect to Proposed Key Holder Transfers of such Transfer Stock pursuant to Section 4; and provided, further, in the case of any transfer pursuant to clause (a) or (c) above, that such transfer is made pursuant to a transaction in which there is no consideration actually paid for such transfer.

5.2 Exempted Offerings. Notwithstanding the foregoing or anything to the contrary herein, the provisions of Section 4 shall not apply to the sale of any Transfer Stock (a) to the public in an offering pursuant to an effective registration statement under the Securities Act (the "**IPO**") or (b) pursuant to a Sale of the Company.

5.3 Prohibited Transferees. Notwithstanding the foregoing, no Key Holder shall transfer any Transfer Stock to (a) any entity which, in the determination of the Board, directly or indirectly competes with the Company or (b) any customer, distributor or supplier of the Company, if the Board should determine that such transfer would result in such customer,

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distributor or supplier receiving information that would place the Company at a competitive disadvantage with respect to such customer, distributor or supplier.

6. Lock-Up.

6.1 Agreement to Lock-Up. Each Key Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the IPO and ending on the date specified by the Company and the managing underwriter (such period not to exceed l80 days) or, if required by such underwriter, such longer period of time as is necessary to enable such underwriter to issue a research report or make a public appearance that relates to an earnings release or announcement by the Company within fifteen (15) days prior to or after the date that is one hundred eighty (180) days after the effective date of the registration statement relating to such offering, but in any event not to exceed two hundred ten (210) days following the effective date of the registration statement relating to such offering (a) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Capital Stock held immediately prior to the effectiveness of the registration statement for the IPO or (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Capital Stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of Capital Stock or other securities, in cash or otherwise. The foregoing provisions of this Section 6 shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement. The underwriters in connection with the IPO are intended third party beneficiaries of this Section 6 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Key Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in the IPO that are consistent with this Section 6 or that are necessary to give further effect thereto.

6.2 Stop Transfer Instructions. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the shares of Capital Stock of each Key Holder (and transferees and assignees thereof) until the end of such restricted period.

7. Remedies and "Bad Actor" Matters.

7.1 Covenants of the Company. The Company agrees to use its best efforts, within the requirements of applicable law, to ensure that the rights granted under this Agreement are effective and that the parties enjoy the benefits of this Agreement. Such actions include, without limitation, the use of the Company's best efforts to cause the nomination and election of the directors as provided in this Agreement.

7.2 Specific Enforcement. Each party acknowledges and agrees that each party hereto will be irreparably damaged in the event any of the provisions of this Agreement are not performed by the parties in accordance with their specific terms or are otherwise breached. Accordingly, it is agreed that each of the Company and the Stockholders shall be entitled to an injunction to prevent breaches of this Agreement, and to specific enforcement of this Agreement

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and its terms and provisions in any action instituted in any court of the United States or any state having subject matter jurisdiction.

7.3 Remedies Cumulative. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

7.4 "Bad Actor" Representation. Each Stockholder (other than a Wellington Investor) hereby represents that none of the "Bad Actor" disqualifying events described in Rule 506(d)(1)(i) to (viii) promulgated under the Securities Act (a "**Disqualification Event**") is applicable to such Stockholder or any of its Rule 506(d) Related Parties (as defined below), except, if applicable, for a Disqualification Event as to which Rule 506(d)(2)(ii) or (iii) or (d)(3) is applicable. For

purposes of this Agreement, "**Rule 506(d) Related Party**" shall mean a person or entity that is a beneficial owner of such Stockholder's securities for purposes of Rule 506(d) of the Securities Act.

7.5 "Bad Actor" Covenant. Each Stockholder (other than a Wellington Investor) hereby agrees that it shall notify the Company promptly in writing in the event a Disqualification Event becomes applicable to such Stockholder or any of its Rule 506(d) Related Parties, except, if applicable, for a Disqualification Event as to which Rule 506(d)(2)(ii) or (iii) or (d)(3) is applicable.

8. Miscellaneous.

8.1 Term. This Agreement shall be effective as of the date hereof and shall continue in effect until and shall terminate upon the earliest to occur of (a) immediately prior to the consummation of the IPO; (b) the consummation of a Deemed Liquidation Event; or (c) termination of this Agreement in accordance with Section 8.10 below.

8.2 Additional Parties.(a) Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of Preferred Stock to a Person who is not already a party to this Agreement ("**New Investor**") after the date hereof, as a condition to the issuance of such shares the Company shall require that such New Investor become a party to this Agreement by executing and delivering an Adoption Agreement in substantially the form attached hereto as Exhibit A. Each such New Investor shall thereafter be deemed an Investor and Stockholder for all purposes under this Agreement.

(b) In the event that after the date of this Agreement, the Company enters into an agreement with any Person to issue shares of capital stock, including any Exercisable Securities, to such Person (other than to a purchaser of Preferred Stock described in Section 8.2(a) above), following which such Person shall hold shares of capital stock constituting one percent (1%) or more of the Company's then outstanding capital stock (treating for this purpose all shares of Common Stock issuable upon exercise of or conversion of outstanding options, warrants or convertible securities, as if exercised and/or converted or exercised), then the Company shall cause such Person, as a condition precedent to entering into such agreement, to become a party to this Agreement by executing an Adoption Agreement in the form attached hereto as Exhibit A, agreeing to be bound by and subject to the terms of this Agreement as a

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Stockholder and thereafter such Person shall be deemed a Key Holder and Stockholder for all purposes under this Agreement.

8.3 Transfers and Assignments.

(a) Each permitted transferee or permitted assignee of any Shares subject to this Agreement shall continue to be subject to the terms hereof, and, as a condition precedent to the Company's recognizing such transfer, each such transferee or assignee shall agree in writing to be subject to each of the terms of this Agreement by executing and delivering an Adoption Agreement substantially in the form attached hereto as Exhibit A. Upon the execution and delivery of an Adoption Agreement by any permitted transferee or permitted assignee, such transferee or assignee shall be deemed to be a party hereto as if such transferee or assignee were the transferor or assignor and such transferee's or assignee's signature appeared on the signature pages of this Agreement and shall be deemed to be an Investor and Stockholder, or Key Holder and Stockholder, as applicable. The Company shall not permit the transfer or assignment of the Shares subject to this Agreement on its books or issue a new certificate representing any such Shares unless and until such transferee or assignee shall have complied with the terms of this Section 8.3. Each certificate representing the Shares subject to this Agreement if issued on or after the date of this Agreement shall be endorsed by the Company with the legends set forth in Sections 8.14.

(b) The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and permitted assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

(c) The rights of the Investors hereunder are not assignable without the Company's written consent (which shall not be unreasonably withheld, delayed or conditioned), except (i) by an Investor to any Affiliate or (ii) to an assignee or transferee who acquires at least 500,000 shares of Capital Stock (as adjusted for any stock combination, stock split, stock dividend, recapitalization or other similar transaction), it being acknowledged and agreed that any such assignment, including an assignment contemplated by the preceding clauses (i) or (ii), shall be subject to and conditioned upon any such assignee's delivery to the Company and the other Investors of a counterpart signature page hereto pursuant to which such assignee shall confirm their agreement to be subject to and bound by all of the provisions set forth in this Agreement that were applicable to the assignor of such assignee. Each such permitted assignee or permitted transferee shall thereafter be deemed an Investor and Stockholder for all purposes under this Agreement.

(d) Except in connection with an assignment by the Company by operation of law to the acquirer of the Company, the rights and obligations of the Company hereunder may not be assigned under any circumstances.

8.4 Stock Split. All references to numbers of shares in this Agreement shall be appropriately adjusted to reflect any stock dividend, split, combination or other recapitalization affecting the Capital Stock occurring after the date of this Agreement.

8.5 Ownership. Each Key Holder represents and warrants that such Key Holder is the sole legal and beneficial owner of the shares of Transfer Stock subject to this Agreement and that no other Person has any interest in such shares (other than a community property interest as to which the holder thereof has acknowledged and agreed in writing to the restrictions and obligations hereunder).

8.6 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

8.7 Counterparts; Facsimile. This Agreement may be executed and delivered by facsimile signature and in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

8.8 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

8.9 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on Schedule A or Schedule B hereto, or to such email address, facsimile number or address as subsequently modified by written notice given in accordance with this Section 8.9. If notice is given to the Company, a copy shall also be sent to Danielle M. Lauzon, Esq. at Goodwin Procter LLP, 53 State St. Exchange Place, Boston, MA 02109. If notice is given to the Investors, a copy shall also be sent to Marc Gottschalk, Esq. at Sidley Austin LLP, 1001 Page Mill Rd #1, Palo Alto, CA 94304. If notice is given to any Wellington Investor, a copy (which shall not constitute notice) shall also be given to Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston MA 02109, facsimile: 617-526-5000, email: jason.kropp@wilmerhale.com, attention: Jason L. Kropp.

8.10 Consent Required to Amend, Terminate or Waive. This Agreement may be amended or modified and the observance of any term hereof may be waived (either generally or in a particular instance and either retroactively or prospectively) only by a written instrument executed by the holders of at least a majority of the shares of Common Stock issued or issuable

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upon conversion of the then outstanding shares of the Preferred Stock held by the Investors (voting as a single class and on an as-converted basis). Notwithstanding the foregoing:

(i) this Agreement may not be amended or terminated and the observance of any term of this Agreement may not be waived with respect to any Investor or Key Holder without the written consent of such Investor or Key Holder unless such amendment, termination or waiver applies to all Investors or Key Holders, as the case may be, in the same fashion;

(ii) the consent of the Key Holders holding at least a majority of the Shares then held by the Key Holders who are providing services to the Company as a consultant, employee, director or officer shall be required for any amendment or waiver if such amendment or waiver seeks to eliminate any rights of the Key Holders hereunder, unless such amendment or waiver does not adversely affect the rights of the Key Holders in a manner that is different than the effect on the rights of the other parties hereto;

(iii) Schedules A and B hereto may be amended by the Company from time to time to update information with respect to the Investors and Key Holders, as applicable;

(iv) any provision hereof may be waived by the waiving party on such party's own behalf, without the consent of any other party;

(v) Section 2.2(a)(i) of this Agreement shall not be amended or waived without the written consent of the Founding Investor for so long as the Founding Investor holds any shares of Preferred Stock; Section 2.2(a)(ii) of this Agreement shall not be amended or waived without the written consent of the Beacon Bioventures for so long as Beacon Bioventures holds any shares of Preferred Stock; Section 2.2(a)(iii) of this Agreement shall not be amended or waived without the written consent of Nextech for so long as Nextech holds any shares of Preferred Stock.

(vi) for so long as any Wellington Investor holds any shares of Preferred Stock (or Common Stock issued upon conversion of such Preferred Stock), the definition of "Affiliate" as it relates to a Wellington Investor may not be amended, terminated or waived without the prior written consent of at least one Wellington Investor, and for so long as any Wellington Investor holds any shares of Preferred Stock (or Common Stock issued upon conversion of such Preferred Stock), the definitions of "Wellington" and "Wellington Investors" may not be amended, terminated or waived without the prior written consent of the Wellington Investors holding a majority of the Preferred Stock (or Common Stock issued upon conversion of such Preferred Stock) outstanding and held by the Wellington Investors.

The Company shall give prompt written notice of any amendment, termination or waiver hereunder to any party that did not consent in writing thereto. Any amendment, termination or waiver effected in accordance with this Section 8.10 shall be binding on each party and all of such party's successors and permitted assigns, whether or not any such party, successor or assignee entered into or approved such amendment, termination or waiver.

8.11 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default previously or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

8.12 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

8.13 Entire Agreement. This Agreement (including the Exhibits hereto), the Restated Certificate and the other Transaction Agreements (as defined in the Purchase Agreement) constitute the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties are expressly canceled.

8.14 Legends on Share Certificates.

(a) Transfer Provisions. Each certificate representing any Shares held by any Key Holder or Key Holder's successor, permitted transferee or permitted assign issued after the date hereof shall be endorsed by the Company with the following legend:

"THE SALE, PLEDGE, HYPOTHECATION OR TRANSFER OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE IS SUBJECT TO, AND IN CERTAIN CASES PROHIBITED BY, THE TERMS AND CONDITIONS OF A CERTAIN STOCKHOLDERS AGREEMENT BY AND AMONG THE STOCKHOLDER, THE CORPORATION AND CERTAIN OTHER HOLDERS OF STOCK OF THE CORPORATION, AS AMENDED

FROM TIME TO TIME. COPIES OF SUCH AGREEMENT MAY BE OBTAINED UPON WRITTEN REQUEST TO THE SECRETARY OF THE CORPORATION."

(b) Voting Provisions. Each certificate representing any Shares held by any Stockholder or Stockholder's successor, permitted transferee or permitted assign issued after the date hereof shall be endorsed by the Company with the following legend:

"THE SHARES EVIDENCED HEREBY ARE SUBJECT TO A STOCKHOLDERS AGREEMENT, AS MAY BE AMENDED FROM TIME TO TIME, (A COPY OF WHICH MAY BE OBTAINED UPON WRITTEN REQUEST FROM THE COMPANY), WHICH PLACES CERTAIN RESTRICTIONS ON THE VOTING OF THE SHARES HEREBY REPRESENTED. BY ACCEPTING ANY INTEREST IN SUCH SHARES, THE PERSON ACCEPTING SUCH INTEREST SHALL BE

DEEMED TO AGREE TO AND SHALL BECOME BOUND BY ALL THE PROVISIONS OF THAT STOCKHOLDERS AGREEMENT, INCLUDING CERTAIN RESTRICTIONS ON TRANSFER AND OWNERSHIP SET FORTH THEREIN."

(c) Each Stockholder agrees that the Company may instruct its transfer agent to impose transfer restrictions on the Shares to enforce the provisions of this Agreement, and the Company agrees to promptly do so. The legends shall be removed upon termination of this Agreement at the request of the holder.

(d) The Company, by its execution of this Agreement, agrees that it will cause the certificates evidencing the Shares issued after the date hereof to bear the legends required by this Section 8.14 of this Agreement, and it shall supply, free of charge, a copy of this Agreement to any holder of a certificate evidencing Shares upon written request from such holder to the Company at its principal office. The parties to this Agreement do hereby agree that the failure to cause the certificates evidencing the Shares to bear the legends required by this Section 8.14 herein and/or the failure of the Company to supply, free of charge, a copy of this Agreement as provided hereunder shall not affect the validity or enforcement of this Agreement.

8.15 Stock Splits, Stock Dividends, etc. In the event of any issuance of Shares of the Company's voting securities hereafter to any of the Stockholders (including, without limitation, in connection with any stock split, stock dividend, recapitalization, reorganization, or the like), such Shares shall become subject to this Agreement and shall be endorsed with the legends set forth in Section 8.14, as applicable.

8.16 Manner of Voting. The voting of Shares pursuant to this Agreement may be effected in person, by proxy, by written consent or in any other manner permitted by applicable law.

8.17 Further Assurances. At any time or from time to time after the date hereof, the parties agree to cooperate with each other, and at the request of any other party, to execute and deliver any further instruments or documents and to take all such further action as the other party may reasonably request in order to evidence or effectuate the consummation of the transactions contemplated hereby and to otherwise carry out the intent of the parties hereunder.

8.18 Spousal Consent. If any Key Holder is married on the date of his or her execution of this Agreement or Adoption Agreement and resides in Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington, or Wisconsin, or the Commonwealth of Puerto Rico, such Key Holder's spouse shall execute and deliver to the Company a consent of spouse in the form of Exhibit B hereto attached ("**Consent of Spouse**"), effective on such date. Notwithstanding the execution and delivery thereof, such consent shall not be deemed to confer or convey to the spouse any rights in such Key Holder's Shares that do not otherwise exist by operation of law or the agreement of the parties. If any Key Holder should marry or remarry subsequent to the date of his or her execution of this Agreement or Adoption Agreement, such Key Holder shall within thirty (30) days thereafter obtain his/her new spouse's acknowledgement of and consent to the existence and binding effect of all restrictions contained in this Agreement by causing such spouse to execute and deliver a Consent of Spouse acknowledging the

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restrictions and obligations contained in this Agreement and agreeing and consenting to the same.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

COMPANY:

BLUEPRINT MEDICINES CORPORATION

By: /s/ Jeffrey Albers
Name: Jeffrey Albers
Title: President and Chief Executive Officer

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

INVESTORS:

THIRD ROCK VENTURES II, L.P.

By: Third Rock Ventures GP, L.P.
its general partner

By: TRV GP, LLC
its general partner

By: /s/ Kevin Gillis
Name: Kevin Gillis
Title: CFO

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

BEACON BIOVENTURES FUND III LIMITED PARTNERSHIP

By its general partner: Beacon Bioventures Advisors Fund III Limited Partnership

By its general partner: Impresa Management LLC

By: /s/ Mary Bevelock Pendergast
Name: Mary Bevelock Pendergast
Title: Vice President

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

NEXTECH III ONCOLOGY LPCI

By: /s/ Rudolf Gygax
Name: Rudolf Gygax
Title: Chairman

By: /s/ Alfred Scheidegger
Name: Alfred Scheidegger
Title: Secretary

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

BIOTECHNOLOGY VALUE FUND, L.P.

By: BVF Partners L.P., its General Partner
By: BVF Inc., its General Partner

By: /s/ Mark Lampert
Name: Mark Lampert
Title: President

BIOTECHNOLOGY VALUE FUND II, L.P.

By: BVF Partners L.P., its General Partner
By: BVF Inc., its General Partner

By: /s/ Mark Lampert

Name: Mark Lampert
Title: President

INVESTMENT 10, L.L.C.

By: BVF Partners L.P., its Attorney-in-fact
By: BVF, Inc., its General Partner

By: /s/ Mark Lampert
Name: Mark Lampert
Title: President

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

CASDIN PARTNERS MASTER FUND, LP

By: Casdin Partners GP, LLC
Its: General Partner

By: /s/ Eli Casdin
Name: Eli Casdin
Title: Managing Member

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

DAVID P. SCHENKEIN 2004 REVOCABLE TRUST

By: /s/ David Schenkein
Name: David Schenkein
Title: Trustee

AMY P. SCHENKEIN 2004 REVOCABLE TRUST

By: /s/ Amy P. Schenkein
Name: Amy P. Schenkein
Title: Trustee

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

PFM HEALTHCARE MASTER FUND, LP

By: /s/ Kimberly A. Summe
Name: Kimberly A. Summe
Title: Chief Operating Officer and General Counsel

PFM HEALTHCARE OPPORTUNITIES MASTER FUND, LP

By: /s/ Kimberly A. Summe
Name: Kimberly A. Summe
Title: Chief Operating Officer and General Counsel

PARTNER INVESTMENT, LP

By: /s/ Kimberly A. Summe
Name: Kimberly A. Summe
Title: Chief Operating Officer and General Counsel

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

REDMILE CAPITAL OFFSHORE FUND, LTD.

By: /s/ Jeremy Green
Name: Jeremy Green
Title: Managing Member of the Investment Manager

REDMILE CAPITAL OFFSHORE FUND II, LTD.

By: /s/ Jeremy Green
Name: Jeremy Green
Title: Managing Member of the Investment Manager

REDMILE SPECIAL OPPORTUNITIES FUND, LTD.

By: /s/ Jeremy Green
Name: Jeremy Green
Title: Managing Member of the Investment Manager

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

TITAN PERC LTD.

By: /s/ Darren Ross
Name: Darren Ross
Title: Director

PERCEPTIVE LIFE SCIENCES MASTER FUND LTD.

By: /s/ James H. Mannix
Name: James H. Mannix
Title: C.O.O.

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

NORTH RIVER PARTNERS, L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

NORTH RIVER INVESTORS (BERMUDA) L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman

Title: Vice President and Counsel

SALTHILL INVESTORS (BERMUDA) L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

SALTHILL PARTNERS, L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

HAWKES BAY MASTER INVESTORS (CAYMAN) LP

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

HADLEY HARBOR MASTER INVESTORS (CAYMAN) L.P.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

GLOBAL HEALTH CARE OPPORTUNITY LTD.

/s/ Steven M. Hoffman
By: Wellington Management Company, LLP, as investment adviser
Name: Steven M. Hoffman
Title: Vice President and Counsel

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

COWEN INVESTMENTS LLC

By: /s/ Owen Littman
Name: Owen Littman
Title: Authorized Signatory

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

RA CAPITAL HEALTHCARE FUND, LP

By: /s/ Peter Kolchinsky
Name: Peter Kolchinsky
Title: Manager

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

SABBY HEALTHCARE VOLATILITY MASTER FUND, LTD.

By: Sabby Management, LLC, its Investment Manager

By: /s/ Robert Grundstein
Name: Robert Grundstein
Title: Chief Operating Officer and General Counsel

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

BOXER CAPITAL LLC

By: /s/ Aaron Davis
Name: Aaron Davis
Title: CEO and Managing Director

MVA INVESTORS LLC

By: /s/ Chris Fuglesang
Name: Chris Fuglesang
Title: President

[SIGNATURE PAGE TO SECOND AMENDED AND RESTATED STOCKHOLDERS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

KEY HOLDERS:

/s/ Nicholas Lydon
Nicholas Lydon

Brian Druker

Scott Lowe

/s/ Alexis Borisy
Alexis Borisy

Chris Varma

David Armistead

Deb Palestrant

/s/ Daniel Lynch
Daniel Lynch

/s/ Christoph Lengauer
Christoph Lengauer

/s/ Kyle Kuvalanka
Kyle Kuvalanka

IN WITNESS WHEREOF, the parties have executed this Second Amended and Restated Stockholders Agreement as of the date first written above.

KEY HOLDERS:

/s/ Jeffrey Albers
Jeffrey Albers

SCHEDULE A

INVESTORS

Name and Contact of Investors

PFM Healthcare Master Fund, L.P.

PFM Healthcare Opportunities Master Fund, L.P.

Partner Investments, L.P.

RA Capital Healthcare Fund, L.P.

North River Partners, L.P.

Deutsche Bank Securities Inc.

North River Investors (Bermuda) L.P.

Salthill Investors (Bermuda) L.P.

Salthill Partners, L.P.

Hawkes Bay Master Investors (Cayman) LP

Hadley Harbor Master Investors (Cayman) L.P.**

Global Health Care Opportunity Ltd.

Redmile Capital Offshore Fund, Ltd.

Redmile Capital Offshore Fund II, Ltd.

Redmile Special Opportunities Fund, Ltd.

Boxer Capital LLC

MVA Investors LLC

Sabby Healthcare Volatility Maser Fund, Ltd.

Titan Perc LTD

Perceptive Life Sciences Master Fund LTD

Cowen Investments LLC

Third Rock Ventures II, L.P.

Beacon Bioventures Fund III Limited Partnership

Nextech III Oncology LPCI

Biotechnology Value Fund, L.P.

Biotechnology Value Fund Ii, L.P.

Investment 10, L.L.C.

Casdin Partners Master Fund, LP

David P. Schenkein 2004 Revocable Trust

Amy Schenkein 2004 Revocable Trust

IMcK Holdings LLC

SCHEDULE B

KEY HOLDERS

Name and Address

Nick Lydon

Brian Drucker

Scott Lowe

Alexis Borisy

Chris Varma

David Armistead

Deb Palestrant

Daniel Lynch

Christoph Lengauer

Kyle Kuvalanka

Jeffrey Albers
c/o Blueprint Medicines
215 First St.
Cambridge, MA 02142

EXHIBIT A

ADOPTION AGREEMENT

This Adoption Agreement ("**Adoption Agreement**") is executed on , 20 , by the undersigned (the "**Holder**") pursuant to the terms of that certain Second Amended and Restated Stockholders Agreement dated as of Novebmer 7, 2014, as the same may be amended, restated or otherwise modified from time to time (the "**Agreement**"), by and among the Company and certain of its Stockholders, as such Agreement may be amended or amended and restated hereafter. Capitalized terms used but not defined in this Adoption Agreement shall have the respective meanings ascribed to such terms in the Agreement. By the execution of this Adoption Agreement, the Holder agrees as follows.

1.1 Acknowledgement. Holder acknowledges that Holder is acquiring certain shares of the capital stock of the Company (the "**Stock**")[or options, warrants or other rights to purchase such Stock (the "**Options**")], for one of the following reasons (Check the correct box):

o as a transferee of Shares from a party in such party's capacity as an "Investor" bound by the Agreement, and after such transfer, Holder shall be considered an "Investor" and a "Stockholder" for all purposes of the Agreement.

o as a transferee of Shares from a party in such party's capacity as a "Key Holder" bound by the Agreement, and after such transfer, Holder shall be considered a "Key Holder" and a "Stockholder" for all purposes of the Agreement.

o as a new Investor in accordance with Section 8.2(a) of the Agreement, in which case Holder will be an "Investor" and a "Stockholder" for all purposes of the Agreement.

o in accordance with Section 8.2(b) of the Agreement, as a new party who is not a new Investor, in which case Holder will be a "Key Holder" and "Stockholder" for all purposes of the Agreement.

1.2 Agreement. Holder hereby (a) agrees that the Stock [Options], and any other shares of capital stock or securities required by the Agreement to be bound thereby, shall be bound by and subject to the terms of the Agreement and (b) adopts the Agreement with the same force and effect as if Holder were originally a party thereto.

1.3 Notice. Any notice required or permitted by the Agreement shall be given to Holder at the address or facsimile number listed below Holder's signature hereto.

HOLDER: _____

By: _____
Name and Title of Signatory

Address: _____

_____

Facsimile Number: _____

ACCEPTED AND AGREED:

BLUEPRINT MEDICINES CORPORATION

By: _____

Name: _____

Title: _____

EXHIBIT B

CONSENT OF SPOUSE

I, [ ], spouse of [ ], acknowledge that I have read the Second Amended and Restated Stockholders Agreement, dated as of November 7, 2014 to which this Consent is attached as Exhibit B, as the same may be amended, restated or otherwise modified from time to time (the "**Agreement**"), and that I know the contents of the Agreement. I am aware that the Agreement contains provisions regarding the voting and transfer of shares of capital stock of the Company that my spouse may own, including any interest I might have therein.

I hereby agree that my interest, if any, in any shares of capital stock of the Company subject to the Agreement shall be irrevocably bound by the Agreement and further understand and agree that any community property interest I may have in such shares of capital stock of the Company shall be similarly bound by the Agreement.

I am aware that the legal, financial and related matters contained in the Agreement are complex and that I am free to seek independent professional guidance or counsel with respect to this Consent. I have either sought such guidance or counsel or determined after reviewing the Agreement carefully that I will waive such right.

Dated: _____

_____
[*Name of Key Holder's Spouse, if any*]

Exhibit 10.1

BLUEPRINT MEDICINES CORPORATION

AMENDMENT NO. 1 TO
2011 STOCK OPTION AND GRANT PLAN

WHEREAS, the Board of Directors and the stockholders of Blueprint Medicines Corporation (the "Company") approved and adopted the 2011 Stock Option and Grant Plan (the "Plan") of the Company on April 4, 2011; and

WHEREAS, the Board of Directors and the stockholders of the Corporation have determined that it is in the best interest of the Corporation to amend the Plan as set forth in this Amendment.

NOW, THEREFORE, the Plan is amended as follows:

1. Amendment of the Plan

1.01. Section 3(a) of the Plan is hereby amended and restated in its entirety to read as follows:

"Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 5,000,000 shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the shares of Stock underlying any Awards that are forfeited, canceled, withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise), in each case shall be added back to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company."

2. Miscellaneous.

2.01. Effect. Except as amended hereby, the Plan shall remain in full force and effect.

2.02. Defined Terms. All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.

2.03. Governing Law. This Amendment shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to its principles of conflicts of laws that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

ADOPTED BY BOARD OF DIRECTORS: February 7, 2012

APPROVED BY STOCKHOLDERS: February 7, 2012

BLUEPRINT MEDICINES CORPORATION

AMENDMENT NO. 2 TO
2011 STOCK OPTION AND GRANT PLAN

WHEREAS, the Board of Directors and the stockholders of Blueprint Medicines Corporation (the "Company") approved and adopted the 2011 Stock Option and Grant Plan (as amended, the "Plan") of the Company on April 4, 2011; and

WHEREAS, the Board of Directors and the stockholders of the Corporation have determined that it is in the best interest of the Corporation to amend the Plan as set forth in this Amendment.

NOW, THEREFORE, the Plan is amended as follows:

1. Amendment of the Plan

1.01. The definition of "Restricted Stock Award" in Section 1 of the Plan is hereby amended and restated in its entirety to read as follows:

"Restricted Stock Award" means Awards granted pursuant to Section 6 and "Restricted Stock" means Shares granted pursuant to such awards, provided that once any such Shares become vested such vested Shares shall be considered Unrestricted Stock.

1.01. Section 3(a) of the Plan is hereby amended and restated in its entirety to read as follows:

Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 9,000,000 shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the shares of Stock underlying any Awards that are forfeited, canceled, withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise), in each case shall be added back to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company.

2. Miscellaneous.

2.01. Effect. Except as amended hereby, the Plan shall remain in full force and effect.

2.02. Defined Terms. All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.

2.03. Governing Law. This Amendment shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to its principles of conflicts of laws that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

ADOPTED BY BOARD OF DIRECTORS: September 20, 2012

APPROVED BY STOCKHOLDERS: September 12, 2013

BLUEPRINT MEDICINES CORPORATION

AMENDMENT NO. 3 TO
2011 STOCK OPTION AND GRANT PLAN

WHEREAS, the Board of Directors and the stockholders of Blueprint Medicines Corporation (the "Company") approved and adopted the 2011 Stock Option and Grant Plan (as amended, the "Plan") of the Company on April 4, 2011 and amended it on February 7, 2012, September 20, 2012 and re-approved and re-adopted the Plan on September 13, 2013; and

WHEREAS, the Board of Directors and the stockholders of the Corporation have determined that it is in the best interest of the Corporation to further amend the Plan as set forth in this Amendment No. 3.

NOW, THEREFORE, the Plan is amended as follows:

1. Amendment of the Plan

1.01. Section 3(a) of the Plan is hereby amended and restated in its entirety to read as follows:

"(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 10,500,000 shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the shares of Stock underlying any Awards that are forfeited, canceled, withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise), in each case shall be added back to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company."

2. Miscellaneous.

2.01. Effect. Except as amended hereby, the Plan shall remain in full force and effect.

2.02. Defined Terms. All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.

2.03. Governing Law. This Amendment No. 3 shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to its principles of conflicts of laws that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

ADOPTED BY BOARD OF DIRECTORS: November 3, 2013

APPROVED BY STOCKHOLDERS: November 13, 2013

BLUEPRINT MEDICINES CORPORATION

AMENDMENT NO. 4 TO
2011 STOCK OPTION AND GRANT PLAN

WHEREAS, the Board of Directors and the stockholders of Blueprint Medicines Corporation (the "Company") approved and adopted the 2011 Stock Option and Grant Plan (as amended, the "Plan") of the Company on April 4, 2011 and amended it on February 7, 2012, September 20, 2012, re-approved and re-adopted the Plan on September 13, 2013 and amended it on November 3, 2013; and

WHEREAS, the Board of Directors and the stockholders of the Corporation have determined that it is in the best interest of the Corporation to further amend the Plan as set forth in this Amendment No. 4.

NOW, THEREFORE, the Plan is amended as follows:

1. Amendment of the Plan

1.01. Section 3(a) of the Plan is hereby amended and restated in its entirety to read as follows:

"(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 14,000,000 shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the shares of Stock underlying any Awards that are forfeited, canceled, withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise), in each case shall be added back to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company."

2. Miscellaneous.

2.01. Effect. Except as amended hereby, the Plan shall remain in full force and effect.

2.02. Defined Terms. All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.

2.03. Governing Law. This Amendment No. 3 shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to its principles of conflicts of laws that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

ADOPTED BY BOARD OF DIRECTORS: January 3, 2014

APPROVED BY STOCKHOLDERS: January 3, 2014

BLUEPRINT MEDICINES CORPORATION

AMENDMENT NO. 5 TO
2011 STOCK OPTION AND GRANT PLAN

WHEREAS, the Board of Directors and the stockholders of Blueprint Medicines Corporation (the "Company") have determined that it is in the best interest of the Corporation to further amend the 2011 Stock Option and Grant Plan (as amended, the "Plan") of the Company as set forth in this Amendment No. 5.

NOW, THEREFORE, the Plan is amended as follows:

1. Amendment of the Plan

1.01. Section 3(a) of the Plan is hereby amended and restated in its entirety to read as follows:

"(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 17,200,000 shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the shares of Stock underlying any Awards that are forfeited, canceled, withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise), in each case shall be added back to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company."

2. Miscellaneous.

2.01. Effect. Except as amended hereby, the Plan shall remain in full force and effect.

2.02. Defined Terms. All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.

2.03. Governing Law. This Amendment No. 5 shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to its principles of conflicts of laws that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

ADOPTED BY BOARD OF DIRECTORS: August 14, 2014

APPROVED BY STOCKHOLDERS: August 18, 2014

BLUEPRINT MEDICINES CORPORATION

AMENDMENT NO. 6 TO
2011 STOCK OPTION AND GRANT PLAN

WHEREAS, the Board of Directors and the stockholders of Blueprint Medicines Corporation (the "Company") have determined that it is in the best interest of the Corporation to further amend the 2011 Stock Option and Grant Plan (as amended, the "Plan") of the Company as set forth in this Amendment No. 6.

NOW, THEREFORE, the Plan is amended as follows:

1. Amendment of the Plan

1.01. Section 3(a) of the Plan is hereby amended and restated in its entirety to read as follows:

"(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 19,750,100 shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the shares of Stock underlying any Awards that are forfeited, canceled, withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise), in each case shall be added back to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company."

2. Miscellaneous.

2.01. Effect. Except as amended hereby, the Plan shall remain in full force and effect.

2.02. Defined Terms. All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.

2.03. Governing Law. This Amendment No. 6 shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to its principles of conflicts of laws that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

ADOPTED BY BOARD OF DIRECTORS: February 10, 2015

APPROVED BY STOCKHOLDERS:

BLUEPRINT MEDICINES CORPORATION
2011 STOCK OPTION AND GRANT PLAN

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan (the "Plan"). The purpose of the Plan is to encourage and enable the officers, employees, directors, Consultants and other key persons (including prospective employees, but conditioned on their employment) of Blueprint Medicines Corporation, a Delaware corporation (including any successor entity, the "Company"), and any Subsidiary, upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business, to acquire a proprietary interest in the Company.

The following terms shall be defined as set forth below:

"Affiliate" of any Person means a Person that directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with the first mentioned Person. A Person shall be deemed to control another Person if such first Person possesses directly or indirectly the power to direct, or cause the direction of, the management and policies of the second Person, whether through the ownership of voting securities, by contract or otherwise.

"Award" or "Awards," except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Restricted Stock Awards, Unrestricted Stock Awards, Restricted Stock Units or any combination of the foregoing.

"Award Agreement" means a written or electronic agreement setting forth the terms and provisions applicable to an Award granted under the Plan. Each Award Agreement may contain terms and conditions in addition to those set forth in the Plan; *provided, however,* that except to the extent explicitly provided to the contrary, in the event of any conflict in the terms of the Plan and the Award Agreement, the terms of the Plan shall govern.

"Bankruptcy" shall mean (i) the filing of a voluntary petition under any bankruptcy or insolvency law, or a petition for the appointment of a receiver or the making of an assignment for the benefit of creditors, with respect to the Holder, (ii) the Holder being subjected involuntarily to such a petition or assignment or to an attachment or other legal or equitable interest with respect to the Holder' s assets, which involuntary petition or assignment or attachment is not discharged within 60 days after its date, or (iii) the Holder being subject to a transfer of its Issued Shares or Award(s) by operation of law (including by divorce, even if not insolvent), except by reason of death.

"Board" means the Board of Directors of the Company.

"Cause" shall have the meaning as set forth in the Award Agreement(s). In the case that any Award Agreement does not contain a definition of "Cause," it shall mean (i) the grantee's dishonest statements or acts with respect to the Company or any Affiliate of the Company, or

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any of the Company's current or prospective customers, suppliers, vendors or other third parties with which such entity does business; (ii) the grantee's commission of (A) a felony or (B) any misdemeanor involving moral turpitude, deceit, dishonesty or fraud; (iii) the grantee's failure to perform his or her assigned duties and responsibilities to the reasonable satisfaction of the Company which failure continues, in the reasonable judgment of the Company, after written notice given to the grantee by the Company; (iv) the grantee's gross negligence, willful misconduct or insubordination with respect to the Company or any Affiliate of the Company; or (v) the grantee's violation of any provision of any agreement(s) between the grantee and the Company relating to noncompetition, nondisclosure and/or assignment of inventions.

"Code" means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

"Committee" means the Committee of the Board referred to in Section 2.

"Consultant" means any natural person that provides bona fide services to the Company (including a Subsidiary), and such services are not in connection with the offer or sale of securities in a capital-raising transaction and do not directly or indirectly promote or maintain a market for the Company's securities.

"Effective Date" means the date on which the Plan is adopted as set forth on the final page of the Plan.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

"Fair Market Value" of the Stock on any given date means the fair market value of the Stock determined in good faith by the Committee based on the reasonable application of a reasonable valuation method not inconsistent with Section 409A of the Code. If the Stock is admitted to trade on a national securities exchange, the determination shall be made by reference to the closing price. If the date for which Fair Market Value is determined is the first day when trading prices for the Stock are reported on a national securities exchange, the Fair Market Value shall be the "Price to the Public" (or equivalent) set forth on the cover page for the final prospectus relating to the Company's Initial Public Offering.

"Good Reason" shall have the meaning as set forth in the Award Agreement(s). In the case that any Award Agreement does not contain a definition of "Good Reason," it shall mean (i) a material diminution in the grantee's base salary except for across-the-board salary reductions based on the Company's financial performance similarly affecting all or substantially all senior management employees of the Company or (ii) a change of more than 50 miles in the geographic location at which the grantee provides services to the Company.

"Grant Date" means the date that the Committee designates in its approval of an Award in accordance with applicable law as the date on which the Award is granted, which date may not precede the date of such Committee approval.

"Holder" means, with respect to an Award or any Issued Shares, the Person holding such Award or Issued Shares, including the initial recipient of the Award or any Permitted Transferee.

"Incentive Stock Option" means any Stock Option designated and qualified as an "incentive stock option" as defined in Section 422 of the Code.

"Initial Public Offering" means the consummation of the first firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act covering the offer and sale by the Company of its equity securities, as a result of or following which the Stock shall be publicly held.

"Issued Shares" means, collectively, all outstanding Shares issued pursuant to Restricted Stock Awards, Unrestricted Stock Awards and Restricted Stock Units and all Option Shares.

"NASDAQ" means the NASDAQ Stock Market LLC.

"Non-Qualified Stock Option" means any Stock Option that is not an Incentive Stock Option.

"Option" or "Stock Option" means any option to purchase shares of Stock granted pursuant to Section 5.

"Option Shares" means outstanding shares of Stock that were issued to a Holder upon the exercise of a Stock Option.

"Permitted Transferees" shall mean any of the following to whom a Holder may transfer Issued Shares hereunder (as set forth in Section 9(a)(ii)(A)): the Holder's child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, any person sharing the Holder's household (other than a tenant or employee), a trust in which these persons have more than fifty percent of the beneficial interest, a foundation in which these persons control the management of assets, and any other entity in which these persons own more than fifty percent of the voting interests*; provided, however,* that any such trust does not require or permit distribution of any Issued Shares during the term of the Award Agreement unless subject to its terms. Upon the death of the Holder, the term Permitted Transferees shall also include such deceased Holder's estate, executors, administrators, personal representatives, heirs, legatees and distributees, as the case may be.

"Person" shall mean any individual, corporation, partnership (limited or general), limited liability company, limited liability partnership, association, trust, joint venture, unincorporated organization or any similar entity.

"Repurchase Event" means (i) a Termination Event in which an Award Recipient's Service Relationship with the Company or its Subsidiaries is terminated for Cause, (ii) a Sale Event or (ii) the Holder's Bankruptcy.

"Restricted Stock Award" means Awards granted pursuant to Section 6 and *"Restricted Stock"* means Shares granted pursuant to such Awards.

"Restricted Stock Unit" means an Award of phantom stock units to a grantee, which may be settled in cash or stock as determined by the Committee, pursuant to Section 8.

"Sale Event" means the consummation of (i) the dissolution or liquidation of the Company, (ii) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (iii) a merger, reorganization or consolidation involving the Company in which the shares of voting stock of the Company outstanding immediately prior to such transaction represent or are converted into or exchanged for securities of the surviving or resulting entity immediately upon completion of such transaction which represent less than 50 percent of the outstanding voting power of such surviving or resulting entity, (iv) the acquisition of all or a majority of the outstanding voting stock of the Company in a single transaction or a series of related transactions by a Person or group of Persons, or (v) any other acquisition of the business of the Company, as determined by the Board; *provided, however,* that the Company's Initial Public Offering, any subsequent public offering or another capital raising event, or a merger effected solely to change the Company's domicile shall not constitute a "Sale Event."

"Section 409A" means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

"Service Relationship" means any relationship as a full-time employee, part-time employee, director or other key person (including Consultants) of the Company or any Subsidiary or any successor entity (e.g., a Service Relationship shall be deemed to continue without interruption in the event an individual's status changes from full-time employee to part-time employee or Consultant).

"Shares" means shares of Stock.

"Stock" means the Common Stock, par value $0.001 per share, of the Company.

"Subsidiary" means any corporation or other entity (other than the Company) in which the Company has more than a 50 percent interest, either directly or indirectly.

"Ten Percent Owner" means an employee who owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent of the Company or any Subsidiary.

"Termination Event" means the termination of the Award recipient's Service Relationship with the Company and its Subsidiaries for any reason whatsoever, regardless of the circumstances thereof, and including, without limitation, upon death, disability, retirement, discharge or resignation for any reason, whether voluntarily or involuntarily. The following shall not constitute a Termination Event: (i) a transfer to the service of the Company from a Subsidiary or from the Company to a Subsidiary, or from one Subsidiary to another Subsidiary or (ii) an approved leave of absence for military service or sickness, or for any other purpose approved by the Committee, if the individual's right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Committee otherwise so provides in writing.

"Unrestricted Stock Award" means any Award granted pursuant to Section 7 and "Unrestricted Stock" means Shares granted pursuant to such Awards.

SECTION 2. ADMINISTRATION OF PLAN; COMMITTEE AUTHORITY TO SELECT GRANTEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Board, or at the discretion of the Board, by a committee of the Board, comprised of not less than two Directors. All references herein to the "Committee" shall be deemed to refer to the group then responsible for administration of the Plan at the relevant time (i.e., either the Board of Directors or a committee or committees of the Board, as applicable).

(b) Powers of Committee. The Committee shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

(i) to select the individuals to whom Awards may from time to time be granted;

(ii) to determine the time or times of grant, and the amount, if any, of Incentive Stock Options, Non-Qualified Stock Options, Restricted Stock Awards, Unrestricted Stock Awards, Restricted Stock Units, or any combination of the foregoing, granted to any one or more grantees;

(iii) to determine the number of shares of Stock to be covered by any Award and, subject to the provisions of Section 5(a)(i) below, the price, exercise price, conversion ratio or other price relating thereto;

(iv) to determine and, subject to Section 12, to modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and grantees, and to approve the form of Award Agreements;

(v) to accelerate at any time the exercisability or vesting of all or any portion of any Award;

(vi) to impose any limitations on Awards granted under the Plan, including limitations on transfers, repurchase provisions and the like, and to exercise repurchase rights or obligations;

(vii) subject to any restrictions imposed by Section 409A, to extend at any time the period in which Stock Options may be exercised; and

(viii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including related written instruments); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.

All decisions and interpretations of the Committee shall be binding on all persons, including the Company and Plan grantees.

(c) Award Agreement. Awards under the Plan shall be evidenced by Award Agreements that set forth the terms, conditions and limitations for each Award. To the extent permitted by the Committee, Award Agreements may be executed electronically by the Award recipient.

(d) Indemnification. Neither the Board nor the Committee, nor any member of either or any delegate thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the Plan, and the members of the Board and the Committee (and any delegate thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under the Company's governing documents,

including its certificate of incorporation or bylaws (each, as may be amended or restated in the future), or any directors' and officers' liability insurance coverage which may be in effect from time to time and/or any indemnification agreement between such individual and the Company.

(e) Foreign Award Recipients. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and any Subsidiary operate or have employees or other individuals eligible for Awards, the Committee, in its sole discretion, shall have the power and authority to: (i) determine which Subsidiaries, if any, shall be covered by the Plan; (ii) determine which individuals, if any, outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to individuals outside the United States to comply with applicable foreign laws; (iv) establish subplans and modify exercise procedures and other terms and procedures, to the extent the Committee determines such actions to be necessary or advisable (and such subplans and/or modifications shall be attached to the Plan as appendices); provided, however, that no such subplans and/or modifications shall increase the share limitation contained in Section 3(a) hereof; and (v) take any action, before or after an Award is made, that the Committee determines to be necessary or advisable to obtain approval or comply with any local governmental regulatory exemptions or approvals.

SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS AND OTHER TRANSACTIONS; SUBSTITUTION

(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 2,500,000 shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the shares of Stock underlying any Awards that are forfeited, canceled, withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise), in each case shall be added back to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company.

(b) Changes in Stock. Subject to Section 3(c) hereof, if, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding shares of Stock are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Stock or other securities, or, if, as a result of any merger or consolidation, or sale of all or substantially all of the assets of the Company, the outstanding shares of Stock are converted into or exchanged for securities of the Company or any successor entity (or a parent or subsidiary thereof), the Committee shall make an appropriate and equitable or proportionate adjustment in (i) the maximum number of shares reserved for issuance under the Plan, (ii) the number and kind of shares or other securities subject to any then outstanding Awards under the Plan, (iii) the repurchase price, if any, per share subject to each outstanding Award, and (iv) the exercise price for each share subject to any then outstanding Stock Options under the Plan, without changing the aggregate exercise price (i.e., the exercise price multiplied by the number of Stock Options) as to which such Stock Options remain exercisable. The adjustment by the Committee shall be final, binding and conclusive. No fractional shares of Stock shall be issued under the Plan resulting from any such adjustment, but the Committee in its discretion may make a cash payment in lieu of fractional shares.

(c) Sale Events.

(i) Options.

(A) In the case of and subject to the consummation of a Sale Event, the Plan and all Options issued hereunder shall terminate upon the effective time of any such Sale Event unless provision is made in connection with the Sale Event for the assumption or continuation of Options theretofore granted by the successor entity, or the substitution of such Options with new Options of the successor entity or parent thereof, with an equitable or proportionate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree (after taking into account any acceleration hereunder and/or pursuant to the terms of any Award Agreement).

(B) In the event of the termination of the Plan and all Options issued hereunder pursuant to Section 3(c), each Holder of Options shall be permitted, within a specified period of time prior to the consummation of the Sale Event as determined by the Committee, to exercise all such Options which are then exercisable or will become exercisable as of the effective time of the Sale Event; *provided*, *however*, that the exercise of Options not exercisable prior to the Sale Event shall be subject to the consummation of the Sale Event.

(C) Notwithstanding anything to the contrary in Section 3(c)(i)(A), in the event of a Sale Event, the Company shall have the right, but not the obligation, to make or provide for a cash payment to the grantees holding Options in exchange for the cancellation thereof, in an amount equal to the difference between (A) the value as determined by the Committee of the consideration payable per share of Stock pursuant to

the Sale Event (the "Sale Price") times the number of shares of Stock subject to outstanding Options (to the extent then vested and exercisable, including by reason of acceleration in connection with such Sale Event, at prices not in excess of the Sale Price) and (B) the aggregate exercise price of all such outstanding vested Options.

(ii) Option Shares. Unless otherwise provided in an Award Agreement, in the case of and subject to the consummation of a Sale Event, Option Shares shall be subject to the repurchase right set forth in Section 9(c)(i).

(iii) Restricted Stock and Restricted Stock Unit Awards.

(A) In the case of and subject to the consummation of a Sale Event, all Restricted Stock and Restricted Stock Unit Awards issued hereunder shall be forfeited immediately prior to the effective time of any such Sale Event unless provision is made in connection with the Sale Event for the assumption or continuation of such Awards by the successor entity, or the substitution of such Awards with new Awards of the successor entity or parent thereof, with an equitable or proportionate adjustment as to the number and kind of shares subject to such Awards as such parties shall agree (after taking into account any acceleration hereunder and/or pursuant to the terms of any Award Agreement).

(B) In the event of the forfeiture of shares of Restricted Stock issued hereunder pursuant to Section 3(c)(iii)(A), such shares of Restricted Stock shall be repurchased from the Holder thereof at a price per share equal to the lower of the original per share purchase price paid by the

recipient (subject to adjustment as provided in Section 3(b)) or the current Fair Market Value of such shares, determined immediately prior to the effective time of the Sale Event.

(C) Notwithstanding anything to the contrary in Section 3(c)(iii)(A), in the event of a Sale Event, the Company shall have the right, but not the obligation, to make or provide for a cash payment to the grantees holding Restricted Stock or Restricted Stock Unit Awards in exchange for the cancellation thereof, in an amount equal to the Sale Price times the number of shares of Stock subject to such Awards, to be paid at the time of such Sale Event or upon the later vesting of such Awards.

(iv) Unrestricted Stock Awards. Unless otherwise provided in an Award Agreement, any shares of Unrestricted Stock shall be treated in a Sale Event the same as all other Shares then outstanding.

SECTION 4. ELIGIBILITY

Grantees under the Plan will be such full or part-time officers and other employees, directors, Consultants and key persons (including prospective employees, but conditioned on their employment) of the Company and any Subsidiary who are selected from time to time by the Committee in its sole discretion; provided, however, that an Incentive Stock Option may be granted only to a person who, at the time the Incentive Stock Option is granted, is an employee of the Company or any Subsidiary.

SECTION 5. STOCK OPTIONS

Upon the grant of a Stock Option, the Company and the grantee shall enter into a Stock Option Award Agreement. The terms and conditions of each such Stock Option Award Agreement shall be determined by the Committee, and such terms and conditions may differ among individual Awards and grantees, all of whom must be eligible persons under Section 4 hereof.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a "subsidiary corporation" within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

(a) Terms of Stock Options. The Committee in its discretion may grant Stock Options to eligible officers, employees, directors, Consultants and key persons of the Company or any Subsidiary. Stock Options granted pursuant to this Section 5(a) shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Committee shall deem desirable.

(i) Exercise Price. The exercise price per share for the Stock covered by a Stock Option granted pursuant to Section 5(a) shall be determined by the Committee at the time of grant but shall not be less than 100 percent of the Fair Market Value on the Grant Date. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the option price of such Incentive Stock Option shall not be less than 110 percent of the Fair Market Value on the Grant Date.

(ii) Option Term. The term of each Stock Option shall be fixed by the Committee, but no Stock Option shall be exercisable more than ten years after the date the Stock Option is granted. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the term of such Stock Option shall be no more than five years from the Grant Date.

(iii) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable and/or vested at such time or times, whether or not in installments, as shall be determined by the Committee at or after the Grant Date. The Award Agreement may permit an optionee to exercise all or a portion of a Stock Option immediately at grant; provided that the Option Shares issued upon such exercise shall be subject to restrictions and a vesting schedule identical to the vesting schedule of the related Stock Option and the optionee shall be required to enter into a Restricted Stock Award Agreement and any other similar documentation required by the Company as a condition to exercise of such Stock Option. An optionee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options. An optionee shall not be deemed to have acquired any such shares unless and until a Stock Option shall have been exercised pursuant to the terms hereof and the optionee's name shall have been entered on the books of the Company as a stockholder.

(iv) Method of Exercise. Stock Options may be exercised by an optionee in whole or in part, by the optionee giving written notice of exercise to the Company, specifying the

number of shares to be purchased. Payment of the purchase price may be made by one or more of the following methods (or any combination thereof) to the extent provided in the Option Award Agreement:

(A) In cash, by certified or bank check, by wire transfer of immediately available funds, or other instrument acceptable to the Committee;

(B) If permitted by the Committee and the Initial Public Offering has occurred (or the Stock otherwise becomes publicly-traded), through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the optionee on the open market or that are beneficially owned by the optionee and are not then subject to restrictions under any Company plan. To the extent required to avoid variable accounting treatment under FAS 123R or other applicable accounting rules, such surrendered shares if originally purchased from the Company shall have been owned by the optionee for at least six months. Such surrendered shares shall be valued at Fair Market Value on the exercise date;

(C) If permitted by the Committee and the Initial Public Offering has occurred (or the Stock otherwise becomes publicly-traded), by the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; provided that in the event the optionee chooses to pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Committee shall prescribe as a condition of such payment procedure; and

(D) If permitted by the Committee, with respect to Stock Options that are not Incentive Stock Options, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price.

Payment instruments will be received subject to collection. No certificates for shares of Stock so purchased will be issued to the optionee or, with respect to uncertificated Stock, no transfer to the optionee on the records of the Company will take place, until the Company has completed all steps required by law to be taken in connection with the issuance and sale of the shares, which steps may include, without limitation, (i) receipt of a representation from the optionee at the time of exercise of the Option that the optionee is purchasing the shares for the optionee's own account and not with a view to any sale or distribution thereof, (ii) the legending of any certificate (or notation on any book entry) representing the shares to evidence the foregoing restrictions, (iii) obtaining from optionee payment or provision for all withholding taxes due as a result of the exercise of the Option, and (iv) if required by the Company, the optionee shall have entered into any stockholders' agreements or other agreements with the Company and/or certain other stockholders of the Company relating to shares of the Stock. The delivery of certificates representing the shares of Stock (or the transfer to the optionee on the records of the Company with respect to uncertificated Stock) to be purchased pursuant to the exercise of a Stock Option will be contingent upon receipt from the optionee (or a purchaser

acting in his or her stead in accordance with the provisions of the Stock Option) by the Company of the full purchase price for such shares and the fulfillment of any other requirements contained in the Option Award Agreement or applicable provisions of laws. In the event an optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the optionee upon the exercise of the Stock Option shall be net of the number of shares attested to.

(b) Annual Limit on Incentive Stock Options. To the extent required for "incentive stock option" treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the time of grant) of the shares of Stock with respect to which Incentive Stock Options granted under the Plan and any other plan of the Company or its parent and any Subsidiary that become exercisable for the first time by an optionee during any calendar year shall not exceed $100,000 or such other limit as may be in effect from time to time under Section 422 of the Code. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option.

SECTION 6. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. The Committee may, in its sole discretion, grant (or sell at par value or such higher purchase price determined by the Committee) to an eligible person under Section 4 hereof a Restricted Stock Award under the Plan. The Committee shall determine the restrictions and conditions applicable to each Restricted Stock Award at the time of grant. Conditions may be based on continuing employment (or other Service Relationship), achievement of pre-established performance goals and objectives and/or such other criteria as the Committee may determine. The grant of a Restricted Stock Award is contingent on the grantee executing a Restricted Stock Award Agreement. The terms and conditions of each such Award Agreement shall be determined by the Committee, and such terms and conditions may differ among individual Awards and grantees, all of whom must be eligible persons under Section 4 hereof.

(b) Rights as a Stockholder. Upon execution of a Restricted Stock Award Agreement and payment of any applicable purchase price, a grantee of Restricted Stock shall be considered the record owner of and shall be entitled to vote the Shares of Restricted Stock if, and to the extent, such Shares are entitled to voting rights, subject to such conditions contained in the Restricted Stock Award Agreement. The grantee shall be entitled to receive all dividends and any other distributions declared on the Shares; provided, however, that the Company is under no duty to declare any such dividends or to make any such distribution. The Restricted Stock Award Agreement may require or permit the immediate payment, waiver, deferral or investment of dividends paid on the Restricted Stock. Unless the Committee shall otherwise determine, certificates evidencing the Restricted Stock shall remain in the possession of the Company until such Restricted Stock is vested as provided in subsection (d) below of this Section, and the grantee shall be required, as a condition of the grant, to deliver to the Company a stock power endorsed in blank and such other instruments of transfer as the Committee may prescribe.

(c) Restrictions. Restricted Stock may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Restricted Stock Award Agreement. Except as may otherwise be provided by the Committee either in the

Award Agreement or, subject to Section 12 below, in writing after the Award Agreement is issued, if any, if a grantee's employment (or other Service Relationship) with the Company and any Subsidiary terminates, the Company or its assigns shall have the right, as may be specified in the relevant instrument, to repurchase some or all of the Shares subject to the Award at such purchase price as is set forth in the Restricted Stock Award Agreement.

(d) Vesting of Restricted Stock. The Committee at the time of grant shall specify the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which the substantial risk of forfeiture imposed shall lapse and the Restricted Stock shall become vested, subject to such further rights of the Company or its assigns as may be specified in the Restricted Stock Award Agreement.

SECTION 7. UNRESTRICTED STOCK AWARDS.

The Committee may, in its sole discretion, grant (or sell at par value or such higher purchase price determined by the Committee) to an eligible person under Section 4 hereof an Unrestricted Stock Award under the Plan. Unrestricted Stock Awards may be granted in respect of past services or other valid consideration, or in lieu of cash compensation due to such grantee.

SECTION 8. RESTRICTED STOCK UNITS

(a) Nature of Restricted Stock Units. The Committee shall determine the restrictions and conditions applicable to each Restricted Stock Unit at the time of grant. Vesting conditions may be based on continuing employment (or other Service Relationship), achievement of pre-established performance goals and objectives and/or other such criteria as the Committee may determine. The grant of Restricted Stock Unit(s) is contingent on the grantee executing a Restricted Stock Unit Award Agreement. The terms and conditions of each such Award Agreement shall be determined by the Committee and may differ among individual Awards and grantees. On or promptly following the vesting date or dates applicable to any Restricted Stock Unit, but in no event later than March 15 of the year

following the year in which such vesting occurs, such Restricted Stock Unit(s), shall be settled in the form of cash or shares of Stock, as specified in the Award Agreement.

(b) Rights as a Stockholder. A grantee shall have the rights of a stockholder only as to shares of Stock, if any, acquired upon settlement of a Restricted Stock Unit. A grantee shall not be deemed to have acquired any such shares unless and until a Restricted Stock Unit shall have been settled in Stock pursuant to the terms hereof, the Company shall have issued and delivered a certificate representing the shares to the grantee, and the grantee's name shall have been entered in the books of the Company as a stockholder.

(c) Termination. Except as may otherwise be provided by the Committee either in the Award Agreement or in writing after the Award Agreement is issued, a grantee's right in all Restricted Stock Units that have not vested shall automatically terminate upon the grantee's termination of employment (or cessation of Service Relationship) with the Company and any Subsidiary for any reason.

SECTION 9. TRANSFER RESTRICTIONS; COMPANY RIGHT OF FIRST REFUSAL; COMPANY REPURCHASE RIGHTS

(a) Restrictions on Transfer.

(i) Non-Transferability of Stock Options. No Stock Option shall be transferable by the optionee otherwise than by will or by the laws of descent and distribution and all Stock Options shall be exercisable, during the optionee's lifetime, only by the optionee, or by the optionee's legal representative or guardian in the event of the optionee's incapacity. Notwithstanding the foregoing, the Committee, in its sole discretion, may provide in the Award Agreement regarding a given Stock Option that the optionee may transfer, without consideration for the transfer, his or her Non-Qualified Stock Options to members of his or her immediate family, to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners, provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Option.

(ii) Issued Shares. No Issued Shares shall be sold, assigned, transferred, pledged, hypothecated, given away or in any other manner disposed of or encumbered, whether voluntarily or by operation of law, unless (i) such transfer is in compliance with the terms of the applicable Award Agreement, all applicable securities laws (including, without limitation, the Securities Act), and with the terms and conditions of this Section 9, (ii) such transfer does not cause the Company to become subject to the reporting requirements of the Exchange Act, and (iii) the transferee consents in writing to be bound by the provisions of the Plan, including this Section 9. In connection with any proposed transfer, the Committee may require the transferor to provide at the transferor's own expense an opinion of counsel to the transferor, satisfactory to the Committee, that such transfer is in compliance with all foreign, federal and state securities laws (including, without limitation, the Securities Act). Any attempted disposition of Issued Shares not in accordance with the terms and conditions of this Section 9 shall be null and void, and the Company shall not reflect on its records any change in record ownership of any Issued Shares as a result of any such disposition, shall otherwise refuse to recognize any such disposition and shall not in any way give effect to any such disposition of Issued Shares. Subject to the foregoing general provisions, and unless otherwise provided in the applicable Award Agreement, Issued Shares may be transferred pursuant to the following specific terms and conditions (provided that with respect to any transfer of Restricted Stock, all vesting and forfeiture provisions shall continue to apply only with respect to the original recipient):

(A) Transfers to Permitted Transferees. The Holder may sell, assign, transfer or give away any or all of the Issued Shares to Permitted Transferees; *provided*, *however*, that following such sale, assignment, transfer or gift, such Issued Shares shall continue to be subject to the terms of this Plan (including this Section 9) and such Permitted Transferee(s) shall, as a condition to any such transfer, deliver a written acknowledgment to that effect to the Company. Notwithstanding the foregoing, the Holder may not sell, assign, transfer or give any or all of the Issued Shares to any Person whom the Company reasonably determines is a direct competitor or a potential competitor of the Company or any of its Subsidiaries.

(B) Transfers Upon Death. Upon the death of the Holder, any Issued Shares then held by the Holder at the time of such death and any Issued Shares acquired thereafter by the Holder's legal representative shall be subject to the provisions of this Plan, and the Holder's estate, executors, administrators, personal representatives, heirs, legatees and distributees shall be obligated to convey such Issued Shares to the Company or its assigns under the terms contemplated hereby.

(b) Right of First Refusal. In the event that a Holder desires at any time to sell or otherwise transfer all or any part of such Holder's Issued Shares (other than shares of Restricted Stock which by their terms are not transferrable), the Holder first shall give written notice to the Company of the Holder's intention to make such transfer. Such notice shall state the number of Issued Shares which the Holder proposes to sell (the "Offered Shares"), the price and the terms at which the proposed sale is to be made and the name and address of the proposed transferee. At any time within 30 days after the receipt of such notice by the Company, the Company or its assigns may elect to purchase all or any portion of the Offered Shares at the price and on the terms offered by the proposed transferee and specified in the notice. The Company or its assigns shall exercise this right by mailing or delivering written notice to the Holder within the foregoing 30-day period. If the Company or its assigns elect to exercise its purchase rights under this Section 9(b), the closing for such purchase shall, in any event, take place within 45 days after the receipt by the Company of the initial notice from the Holder. In the event that the Company or its assigns do not elect to exercise such purchase right, or in the event that the Company or its assigns do not pay the full purchase price within such 45-day period, the Holder may, within 60 days thereafter, sell the Offered Shares to the proposed transferee and at the same price and on the same terms as specified in the Holder's notice. Any Shares purchased by such proposed transferee shall no longer be subject to the terms of the Plan. Any Shares not sold to the proposed transferee shall remain subject to the Plan. If the Holder is a party to any stockholders' agreements or other agreements with the Company and/or certain other of the Company's stockholders relating to shares of the Stock, (i) the transferring Holder shall comply with the requirements of such stockholders' agreements or other agreements relating to any proposed transfer of the Offered Shares, and (ii) any proposed transferee that purchases Offered Shares shall enter into such stockholders' agreements or other agreements with the Company and/or certain other of the Company's stockholders relating to the Offered Shares on the same terms and in the same capacity as the transferring Holder.

(c) Company's Right of Repurchase.

(i) Right of Repurchase for Option Shares. The Company or its assigns shall have the right and option upon a Repurchase Event to repurchase from a Holder of Option Shares some or all (as determined by the Company) of the Option Shares held or subsequently acquired upon exercise of a Stock Option by such Holder at the price per share specified below. Such repurchase right may be exercised by the Company within the later of (A) six months following the date of such Repurchase Event or (B) seven months after the acquisition of such Option Shares upon exercise of a Stock Option (the "Option Shares

Repurchase Period"). The "Option Shares Repurchase Price" shall be equal to the Fair Market Value of the Option Shares, determined as of the date the Committee elects to exercise its repurchase rights in connection with a Repurchase Event.

(ii) Right of Repurchase With Respect to Restricted Stock and Shares issued pursuant to an Unrestricted Stock Award or Restricted Stock Unit Award. Unless otherwise set forth in the agreement entered into by the recipient and the Company in connection with a Restricted Stock Award, Unrestricted Stock Award or Restricted Stock Unit Award, the Company or its assigns shall have the right and option upon a Repurchase Event to repurchase from a Holder of Issued Shares received pursuant to a Restricted Stock Award, Unrestricted Stock Award or Restricted Stock Unit Award some or all (as determined by the Company) of such Issued Shares at the price per share specified below. In addition, upon a Termination Event, the Company or its assigns shall have the right and option to repurchase from a Holder of Issued Shares received pursuant to a Restricted Stock Award any Issued Shares which have not vested as of the Termination Event. Such repurchase right may be exercised by the Company within six months following the date of such Repurchase Event or Termination Event as applicable (the "Non-Option Shares Repurchase Period"). The "Non-Option Shares Repurchase Price" shall be (i) in the case of Issued Shares which are vested as of the date of the Repurchase Event, the Fair Market Value of such Issued Shares as of the date the Company elects to exercise its repurchase rights in connection with a Repurchase Event and (ii) in the case of Issued Shares which have not vested as of the date of the Repurchase Event or Termination Event (as applicable), the lower of the original per share purchase price paid by the recipient subject to adjustment as provided in Section 3(b) or the current Fair Market Value of such Issued Shares as of the date the Company elects to exercise its repurchase rights in connection with a Repurchase Event or Termination Event (as applicable).

(iii) Procedure. Any repurchase right of the Company shall be exercised by the Company or its assigns by giving the Holder written notice on or before the last day of the Option Shares Repurchase Period or Non-Option Shares Repurchase Period, as applicable, of its intention to exercise such repurchase right. Upon such notification, the Holder shall promptly surrender to the Company, free and clear of any liens or encumbrances, any certificates representing the Shares being purchased, together with a duly executed stock power for the transfer of such Shares to the Company or the Company's assignee or assignees. Upon the Company's or its assignee's receipt of the certificates from the Holder, the Company or its assignee or assignees shall deliver to him, her or them a check for the Option Shares Repurchase Price or the Non-Option Shares Repurchase Price, as applicable; *provided, however*, that the Company may pay the Option Shares Repurchase Price or Non-Option Shares Repurchase Price, as applicable, by offsetting and canceling any indebtedness then owed by the Holder to the Company.

(d) Drag Along Right. In the event the holders of a majority of the Company's equity securities then outstanding (the "Majority Shareholders") determine to enter into a Sale Event in a *bona fide* negotiated transaction (a "Sale"), with any non-Affiliate of the Company or any majority stockholder (in each case, the "Buyer"), a Holder of Issued Shares, including any Permitted Transferees, shall be obligated to and shall upon the written request of the Company or the Majority Shareholders: (i) sell, transfer and deliver, or cause to be sold, transferred and delivered, to the Buyer, his or her Issued Shares (including for this purpose all of such Holder's or his or her Permitted Transferee's Issued Shares that presently or as a result of any such transaction may be acquired upon the exercise of an Option (following the payment of the exercise price therefor)) on substantially the same terms applicable to the Majority Shareholders (with appropriate adjustments to reflect the conversion of convertible securities, the redemption

of redeemable securities and the exercise of exercisable securities as well as the relative preferences and priorities of preferred stock); and (ii) execute and deliver such instruments of conveyance and transfer and take such other action, including voting such Issued Shares in favor of any Sale proposed by the Majority Shareholders and executing any purchase agreements, merger agreements, indemnity agreements, escrow agreements or related documents as the Company, the Majority Shareholders or the Buyer may reasonably require in order to carry out the terms and provisions of this Section 9(d).

(e) Escrow Arrangement.

(i) Escrow. In order to carry out the provisions of Sections 9(b), (c) and (d) of this Agreement more effectively, the Company shall hold any Issued Shares in escrow together with separate stock powers executed by the Holder in blank for transfer, and any Permitted Transferee shall, as an additional condition to any transfer of Issued Shares, execute a like stock power as to such Issued Shares. The Company shall not dispose of the Issued Shares except as otherwise provided in this Agreement. In the event of any repurchase by the Company (or any of its assigns), the Company is hereby authorized by the Holder and any Permitted Transferee, as the Holder's and each such Permitted Transferee's attorney-in-fact, to date and complete the stock powers necessary for the transfer of the Issued Shares being purchased and to transfer such Issued Shares in accordance with the terms hereof. At such time as any Issued Shares are no longer subject to the Company's repurchase, first refusal and drag along rights, the Company shall, at the written request of the Holder, deliver to the Holder (or the relevant Permitted Transferee) a certificate representing such Issued Shares with the balance of the Issued Shares to be held in escrow pursuant to this Section 9(e).

(ii) Remedy. Without limitation of any other provision of this Agreement or other rights, in the event that a Holder, any Permitted Transferees or any other Person is required to sell a Holder's Issued Shares pursuant to the provisions of Sections 9(b), (c), or (d) hereof and in the further event that he or she refuses or for any reason fails to deliver to the Company or its designated purchaser of such Issued Shares the certificate or certificates evidencing such Issued Shares together with a related stock power, the Company or such designated purchaser may deposit the applicable purchase price for such Issued Shares with a bank designated by the Company, or with the Company's independent public accounting firm, as agent or trustee, or in escrow, for such Holder, any Permitted Transferees or other Person, to be held by such bank or accounting firm for the benefit of and for delivery to him, her, them or it, and/or, in its discretion, pay such purchase price by offsetting any indebtedness then owed by such Holder as provided above. Upon any such deposit and/or offset by the Company or its designated purchaser of such amount and upon notice to the Person who was required to sell the Issued Shares to be sold pursuant to the provisions of Sections 9(b), (c) or (d), such Issued Shares shall at such time be deemed to have been sold, assigned, transferred and conveyed to such purchaser, such Holder shall have no further rights thereto (other than the right to withdraw the payment thereof held in escrow, if applicable), and the Company shall record such transfer in its stock transfer book or in any appropriate manner.

(f) Lockup Provision. A Holder agrees, if requested by the Company and any underwriter engaged by the Company, not to sell or otherwise transfer or dispose of any Issued Shares (including, without limitation, pursuant to Rule 144 under the Securities Act) held by him

or her for such period following the effective date of any registration statement of the Company filed under the Securities Act as the Company or such underwriter shall specify reasonably and in good faith. If requested by the underwriter engaged by the Company, each Holder shall execute a separate letter reflecting the

agreement set forth in this Section 9(f).

(g) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of shares of the Company's Stock, the restrictions contained in this Section 9 shall apply with equal force to additional and/or substitute securities, if any, received by Holder in exchange for, or by virtue of his or her ownership of, Issued Shares.

(h) Termination. The terms and provisions of Section 9(b), Section 9(c) (except for the Company's right to repurchase unvested Restricted Stock Awards upon a Termination Event) and Section 9(d) shall terminate upon the closing of the Company's Initial Public Offering or upon consummation of any Sale Event, in either case as a result of which shares of the Company (or a successor entity) of the same class as the Issued Shares are registered under Section 12 of the Exchange Act and publicly traded on any national security exchange.

SECTION 10. TAX WITHHOLDING

(a) Payment by Grantee. Each grantee shall, no later than the date as of which the value of an Award or of any Stock or other amounts received thereunder first becomes includable in the gross income of the grantee for Federal income tax purposes, pay to the Company, or make arrangements satisfactory to the Committee regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld by the Company with respect to such income. The Company and any Subsidiary shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the grantee. The Company's obligation to deliver stock certificates (or evidence of book entry) to any grantee is subject to and conditioned on any such tax withholding obligations being satisfied by the grantee.

(b) Payment in Stock. Subject to approval by the Committee, the Company's minimum required tax withholding obligation may be satisfied, in whole or in part, by the Company withholding from shares of Stock to be issued pursuant to any Award a number of shares with an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the minimum withholding amount due.

SECTION 11. SECTION 409A AWARDS.

To the extent that any Award is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A (a "409A Award"), the Award shall be subject to such additional rules and requirements as specified by the Committee from time to time in order to comply with Section 409A. In this regard, if any amount under a 409A Award is payable upon a "separation from service" (within the meaning of Section 409A) to a grantee who is considered a "specified employee" (within the meaning of Section 409A), then no such

payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee's separation from service, or (ii) the grantee's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A.

SECTION 12. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Committee may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law or for any other lawful purpose, but no such action shall adversely affect rights under any outstanding Award without the consent of the holder of the Award. The Committee may exercise its discretion to reduce the exercise price of outstanding Stock Options or effect repricing through cancellation of outstanding Awards and by granting such holders new Awards in replacement of the cancelled Awards. To the extent determined by the Committee to be required either by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code or otherwise, Plan amendments shall be subject to approval by the Company stockholders entitled to vote at a meeting of stockholders. Nothing in this Section 12 shall limit the Board's or Committee's authority to take any action permitted pursuant to Section 3(c).

SECTION 13. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a grantee, a grantee shall have no rights greater than those of a general creditor of the Company unless the Committee shall otherwise expressly so determine in connection with any Award or Awards.

SECTION 14. GENERAL PROVISIONS

(a) No Distribution; Compliance with Legal Requirements. The Committee may require each person acquiring Stock pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the shares of Stock without a view to distribution thereof. No shares of Stock shall be issued pursuant to an Award until all applicable securities law and other legal and stock exchange or similar requirements have been satisfied. The Committee may require the placing of such stop-orders and restrictive legends on certificates for Stock and Awards as it deems appropriate.

(b) Delivery of Stock Certificates. Stock certificates to grantees under the Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the grantee, at the grantee's last known address on file with the Company; provided, that stock certificates to be held in escrow pursuant to Section 9(e) of the Plan shall be deemed delivered when the Company shall have recorded the issuance in its records. Uncertificated Stock shall be deemed delivered for all purposes when the Company or a Stock transfer agent of the Company shall have given to the grantee by electronic mail (with proof of receipt) or by United States mail, addressed to the grantee, at the grantee's last known address on file with the Company, notice of

issuance and recorded the issuance in its records (which may include electronic "book entry" records).

(c) No Employment Rights. The adoption of the Plan and the grant of Awards do not confer upon any Person any right to continued employment or Service Relationship with the Company or any Subsidiary.

(d) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to the Company's insider trading policy-related restrictions, terms and conditions as may be established by the Committee, or in accordance with policies set by the Committee, from time to time.

(e) Designation of Beneficiary. Each grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award on or after the grantee's death or receive any payment under any Award payable on or after the grantee's death. Any such designation shall be on a form provided for that purpose by the Committee and shall not be effective until received by the Committee. If no beneficiary has been designated by a deceased grantee, or if the designated beneficiaries have predeceased the grantee, the beneficiary shall be the grantee's estate.

(f) Legend. Any certificate(s) representing the Issued Shares shall carry substantially the following legend (and with respect to uncertificated Stock, the book entries evidencing such shares shall contain the following notation):

> The transferability of this certificate and the shares of stock represented hereby are subject to the restrictions, terms and conditions (including repurchase and restrictions against transfers) contained in the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan and any agreement entered into thereunder by and between the company and the holder of this certificate (a copy of which is available at the offices of the company for examination).

SECTION 15. EFFECTIVE DATE OF PLAN

The Plan shall become effective upon adoption by the Board and shall be approved by the stockholders in accordance with applicable state law, and the Company's certificate of incorporation and bylaws (each, as may be amended or restated in the future) within 12 months thereafter. Subject to such approval by the stockholders and to the requirement that no Stock may be issued hereunder prior to such approval, Stock Options and other Awards may be granted hereunder on and after adoption of the Plan by the Board. No grants of Stock Options and other Awards may be made hereunder after the tenth anniversary of the Effective Date and no grants of Incentive Stock Options may be made hereunder after the tenth anniversary of the date the Plan is approved by the Board.

SECTION 16. GOVERNING LAW

This Plan, all Awards and any controversy arising out of or relating to this Plan and all Awards shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

DATE APPROVED BY THE BOARD OF DIRECTORS: April 4, 2011

DATE APPROVED BY THE STOCKHOLDERS: April 4, 2011

INCENTIVE STOCK OPTION AGREEMENT
UNDER THE BLUEPRINT MEDICINES CORPORATION
2011 STOCK OPTION AND GRANT PLAN

Name of Optionee: (the "Optionee")

No. of Underlying Shares: Shares of Common Stock

Grant Date: (the "Grant Date")

Vesting Commencement Date: (the "Vesting Commencement Date")

Expiration Date: (the "Expiration Date")

Option Exercise Price/Share: $ (the "Option Exercise Price")

Pursuant to the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan, as amended (the "Plan"), Blueprint Medicines Corporation, a Delaware corporation (together with any successor thereto, the "Company"), hereby grants to the Optionee, who is an employee of the Company or any of its Subsidiaries, an option (the "Stock Option") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value $0.001 per share ("Common Stock"), of the Company indicated above (the "Underlying Shares," and such shares once issued shall be referred to as the "Option Shares"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Incentive Stock Option Agreement (this "Agreement") and in the Plan. This Stock Option is intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "Code"). To the extent that any portion of the Stock Option does not so qualify, it shall be deemed a non-qualified stock option.

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Plan.

1. Vesting, Exercisability and Termination.

(a) No portion of this Stock Option may be exercised until such portion shall have vested and become exercisable.

(b) Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, this Stock Option shall be vested and exercisable with respect to the Underlying Shares on the respective dates indicated below:

[VESTING SCHEDULE]

Notwithstanding anything herein to the contrary in the case of a Sale Event, this Stock Option shall be treated as provided in Section 3(c) of the Plan**[provided; however INSERT ANY ACCELERATED VESTING PROVISION HERE]**.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or disability (as defined in Section 422(c) of the Code), this Stock Option may be exercised, to the extent exercisable on the date of such termination, by the Optionee, the Optionee's legal representative or legatee for a period of 12 months from the date of death or disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or disability (as defined in Section 422(c) of the Code), and unless otherwise determined by the Committee, this Stock Option may be exercised, to the extent exercisable on the date of termination, for a period of 90 days from the date of termination or until the Expiration Date or other termination date, if earlier; provided however, if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees. Any portion of this Stock Option that is not exercisable on the date of termination of the Service Relationship shall terminate immediately and be null and void.

(d) It is understood and intended that this Stock Option is intended to qualify as an "incentive stock option" as defined in Section 422 of the Code to the extent permitted under applicable law. Accordingly, the Optionee understands that in order to obtain the benefits of an incentive stock option under Section 422 of the Code, no sale or other disposition may be made of Option Shares for which incentive stock option treatment is desired within the one-year period beginning on the day after the day of the transfer of such Option Shares to him or her, nor within the two-year period beginning on the day after Grant Date of this Stock Option and further that this Stock Option must be exercised within 90 days after termination of employment as an employee (or 12 months in the case of death or disability) to qualify as an incentive stock option. If the Optionee disposes (whether by sale, gift, transfer or otherwise) of any such Option Shares within either of these periods, he or she will notify the Company within 30 days after such disposition. The Optionee also agrees to provide the Company with any information concerning any such dispositions required by the Company for tax purposes. Further, to the extent the Underlying Shares and any other incentive stock options of the Optionee having an aggregate Fair Market Value in excess of $100,000 (determined as of the Grant Date) first become exercisable in any year, such options will not qualify as incentive stock options.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Underlying Shares with respect to which this Stock Option is exercisable at the time of such notice. Such notice shall specify the number of Underlying Shares to be purchased. Payment of the purchase price may be made by one or more of the methods described in Section 5(a)(iv) of the Plan, subject to the limitations contained in such Section of the Plan (and in any subsections thereof), including the requirement that the Committee specifically approve in advance certain payment methods.

(b) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Agreement is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee's lifetime only by the Optionee (or by the Optionee's guardian or personal representative in the event of the Optionee's incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee's Stock Option in the event of the Optionee's death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee's death.

5. Restrictions on Transfer of Option Shares. The Option Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of shares of the Company's stock, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, Option Shares.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope hereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by e-mail or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, permitted assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(j) [Employment / Consulting] Agreement. Optionee acknowledges that this Agreement has been executed and delivered, and the Stock Option granted hereunder has been issued, pursuant to, and in full satisfaction of, the Company's obligations under Section [ ] of the [Employment / Consulting] Agreement, dated , by and between the Company and Optionee.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

BLUEPRINT MEDICINES CORPORATION

By: _____
Name:
Title:

Address:

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that the Stock Option granted hereby is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan and this Agreement, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

_____
Name:

Address:

[SPOUSE'S CONSENT(1)
I acknowledge that I have read the
foregoing Incentive Stock Option Agreement
and understand the contents thereof.

]

(1) A spouse's consent is required only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

DESIGNATED BENEFICIARY:

_____

Beneficiary's Address:

Appendix A

STOCK OPTION EXERCISE NOTICE

Blueprint Medicines Corporation

Attention: [ ]

Pursuant to the terms of the stock option agreement between the undersigned and Blueprint Medicines Corporation (the "Company") dated (the "Agreement") under the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan, I, [Insert Name] , hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of $ representing the purchase price for [Fill in number of Underlying Shares] Underlying Shares. I have chosen the following form(s) of payment:

o 1. Cash

o 2. Certified or bank check payable to Blueprint Medicines Corporations

o 3. Other (as referenced in the Agreement and described in the Plan (please describe))

.

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

(i) I am purchasing the Underlying Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.

(iii) I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Underlying Shares and to make an informed investment decision with respect to such purchase.

(iv) I can afford a complete loss of the value of the Option Shares and am able to bear the economic risk of holding such Option Shares for an indefinite period of time.

(v) I understand that the Option Shares may not be registered under the Securities Act of 1933 (it being understood that the Option Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable

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state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Option Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Option Shares will include similar restrictive notations.

Sincerely yours,

_____

Name:

Address:

EARLY EXERCISE
INCENTIVE STOCK OPTION AGREEMENT
UNDER THE BLUEPRINT MEDICINES CORPORATION
2011 STOCK OPTION AND GRANT PLAN

Name of Optionee: (the "Optionee")

No. of Option Shares: Shares of Common Stock

Grant Date:

Vesting Commencement Date: (the "Vesting Commencement Date")

Expiration Date: (the "Expiration Date")

Option Exercise Price/Share: $ (the "Option Exercise Price")

Pursuant to the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan, as amended (the "Plan") and as contemplated by that certain Offer Letter ("Offer Letter") dated June 12, 2014, by and between the Optionee and Blueprint Medicines Corporation, a Delaware corporation (together with any successor thereto, the "Company"), as supplemented by that certain Letter Agreement (the "Letter Agreement," and together with the "Offer Letter," the "Offer Letter Agreement") dated August , 2014 by and between the Optionee and the Company, the Company hereby grants to the Optionee, who is an officer, employee, director, Consultant or other key person of the Company or any of its Subsidiaries, an option (the "Stock Option") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value $0.001 per share ("Common Stock"), of the Company indicated above (the "Option Shares"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Early Exercise Incentive Stock Option Agreement (this "Agreement") and in the Plan. This Stock Option is intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "Code"). To the extent that any portion of the Stock Option does not so qualify, it shall be deemed a non-qualified stock option.

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Plan or the Offer Letter Agreement.

1. Vesting, Exercisability and Termination.

(a) Early Exercise Permitted. This Stock Option shall be immediately exercisable, regardless of whether the Option Shares are vested.

(b) Vesting Schedule. Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, the Option Shares shall be vested on the respective dates indicated below:

[VESTING SCHEDULE]

Notwithstanding anything herein to the contrary, in the case of a Sale Event, this Stock Option and the Option Shares shall be treated as provided in Section 3(c) of the Plan**[provided; however INSERT ANY ACCELERATED VESTING PROVISION HERE]**.

Further, notwithstanding anything herein to the contrary, if (a) the Company is subject to a Sale Event and (b) this Stock Option and the Option Shares are not assumed or continued by the buyer, then, this Stock Option and the Option Shares shall be treated as provided in Section 3(c) of the Plan.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or disability (as defined in Section 422(c) of the Code), this Stock Option may continue to be exercised, to the extent the Option Shares are vested on the date of termination, by the Optionee, the Optionee's legal representative or legatee for a period of 12 months from the date of death or disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or disability (as defined in Section 422(c) of the Code), and unless otherwise determined by the Committee, this Stock Option may continue to be exercised, to the extent the Option Shares are vested on the date of termination, for a period of 90 days from the date of termination or until the Expiration Date or other termination date, if earlier; provided however, if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees. Any portion of this Stock Option with respect to Option Shares that are not vested and exercisable on the date of termination of the Service Relationship shall terminate immediately and be null and void.

(d) It is understood and intended that this Stock Option is intended to qualify as an "incentive stock option" as defined in Section 422 of the Code to the extent permitted under applicable law. Accordingly, the Optionee understands that in order to obtain the benefits of an incentive stock option under Section 422 of the Code, no sale or other disposition may be made of Option Shares for which incentive stock option treatment is desired within the one-year period beginning on the day after the day of the transfer of such Option Shares to him or her, nor within the two-year period beginning on the day after the Grant Date of this Stock Option and further that this Stock Option must be exercised within three months after termination of employment as an employee (or 12 months in the case of death or disability) to qualify as an

incentive stock option. If the Optionee disposes (whether by sale, gift, transfer or otherwise) of any such Shares within either of these periods, he or she will notify the Company within 30 days after such disposition. The Optionee also agrees to provide the Company with any information concerning any such dispositions required by the Company for tax purposes. Further, to the extent this Stock Option and any other incentive stock options of the Optionee having an aggregate Fair Market Value in excess of $100,000 (determined as of the Grant Date) first become exercisable in any year, such options will not qualify as incentive stock options.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Option Shares. Such notice shall specify the number of Option Shares to be purchased. To the extent this Stock Option is only partially exercised, such exercise shall first be with respect to the Option Shares, if any, that have previously vested, and then with respect to the Option Shares that will next vest, with the Option Shares that vest at the latest date being exercised last. Payment of the purchase price may be made by one or more of the methods described in Section 5(a)(iv) of the Plan, subject to the limitations contained in such Section of the Plan (and in any subsections thereof), including the requirement that the Committee specifically approve in advance certain payment methods.

(b) In the event the Optionee exercises a portion of this Stock Option with respect to Option Shares that have not vested, the Optionee shall also deliver a Restricted Stock Agreement covering such unvested Option Shares in the form of Appendix B hereto (the "Restricted Stock Agreement") with the same vesting schedule for such Option Shares as set forth for such Option Shares herein.

(c) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Agreement is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee's lifetime only by the Optionee (or by the Optionee's guardian or personal representative in the event of the Optionee's incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee's Stock Option in the event of the Optionee's death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee's death.

5. Restrictions on Transfer of Option Shares. The Option Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan and, if applicable, the Restricted Stock Agreement.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of shares of the Company's stock, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, Option Shares.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope hereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by e-mail or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, permitted assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

BLUEPRINT MEDICINES CORPORATION

By: _____
Name:
Title:

Address:

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that the Stock Option granted hereby is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan and this Agreement, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

_____
Name:

Address:

[SPOUSE'S CONSENT(1)
I acknowledge that I have read the
foregoing Incentive Stock Option Agreement
and understand the contents thereof.

]

(1) A spouse's consent is required only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

Appendix A

STOCK OPTION EXERCISE NOTICE

Blueprint Medicines Corporation
Attention: [ ]

Pursuant to the terms of the stock option agreement between the undersigned and Blueprint Medicines Corporation (the "Company") dated (the "Agreement") under the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan, I, [Insert Name] , hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of $ representing the purchase price for [Fill in number of Option Shares] Option Shares. I have chosen the following form(s) of payment:

- o 1. Cash
- o 2. Certified or bank check payable to Blueprint Medicines Corporation
- o 3. Other (as referenced in the Agreement and described in the Plan (please describe))

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

(i) I am purchasing the Option Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.

(iii) I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Option Shares and to make an informed investment decision with respect to such purchase.

(iv) I can afford a complete loss of the value of the Option Shares and am able to bear the economic risk of holding such Option Shares for an indefinite period of time.

(v) I understand that the Option Shares may not be registered under the Securities Act of 1933 (it being understood that the Option Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or

disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Option Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Option Shares will include similar restrictive notations.

(vi) To the extent required, I have executed and delivered to the Company the Restricted Stock Agreement attached as Appendix B to the Agreement.

Sincerely yours,

_____

Name:

Address:

NON-QUALIFIED STOCK OPTION AGREEMENT
UNDER THE BLUEPRINT MEDICINES CORPORATION
2011 STOCK OPTION AND GRANT PLAN

Name of Optionee: (the "Optionee")

No. of Underlying Shares: Shares of Common Stock

Grant Date:

Vesting Commencement Date: (the "Vesting Commencement Date")

Expiration Date: (the "Expiration Date")

Option Exercise Price/Share: $ (the "Option Exercise Price")

Pursuant to the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan, as amended (the "Plan"), Blueprint Medicines Corporation, a Delaware corporation (together with any successor thereto, the "Company"), hereby grants to the Optionee, who is an officer, employee, director, Consultant or other key person of the Company or any of its Subsidiaries, an option (the "Stock Option") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value $0.001 per share ("Common Stock"), of the Company indicated above (the "Underlying Shares," and such shares once issued shall be referred to as the "Option Shares"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Non-Qualified Stock Option Agreement (this "Agreement") and in the Plan. This Stock Option is not intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "Code").

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Plan.

1. Vesting, Exercisability and Termination.

(a) No portion of this Stock Option may be exercised until such portion shall have vested and become exercisable.

(b) Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, this Stock Option shall be vested and exercisable with respect to the Underlying Shares on the respective dates indicated below:

[VESTING SCHEDULE]

Notwithstanding anything herein to the contrary in the case of a Sale Event, this Stock Option shall be treated as provided in Section 3(c) of the Plan**[provided; however INSERT ANY ACCELERATED VESTING PROVISION HERE]**.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or disability (as defined in Section 422(c) of the Code), this Stock Option may be exercised, to the extent exercisable on the date of such termination, by the Optionee, the Optionee's legal representative or legatee for a period of 12 months from the date of death or disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or disability (as defined in Section 422(c) of the Code), and unless otherwise determined by the Committee, this Stock Option may be exercised, to the extent exercisable on the date of termination, for a period of 90 days from the date of termination or until the Expiration Date or other termination date, if earlier; provided however, if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees and any Permitted Transferee. Any portion of this Stock Option that is not exercisable on the date of termination of the Service Relationship shall terminate immediately and be null and void.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Underlying Shares with respect to which this Stock Option is exercisable at the time of such notice. Such notice shall specify the number of Underlying Shares to be purchased. Payment of the purchase price may be made by one or more of the methods described in Section 5(a)(iv) of the Plan, subject to the limitations contained in such Section of the Plan (and in any subsections thereof), including the requirement that the Committee specifically approve in advance certain payment methods.

(b) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Agreement is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee's lifetime only by the Optionee (or by the Optionee's guardian or personal representative in the event of the Optionee's incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee's Stock Option in the event of the Optionee's death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee's death.

5. Restrictions on Transfer of Option Shares. The Option Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of shares of the Company's stock, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, Option Shares.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope hereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by e-mail or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, permitted assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(j) [Employment / Consulting] Agreement. Optionee acknowledges that this Agreement has been executed and delivered, and the Stock Option granted hereunder has been issued, pursuant to, and in full satisfaction of, the Company's obligations under Section [ ] of the [Employment / Consulting] Agreement, dated , by and between the Company and Optionee.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

BLUEPRINT MEDICINES CORPORATION

By: _____
Name:
Title:

Address:

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that the Stock Option granted hereby is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan and this Agreement, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

_____
Name:

Address:

[SPOUSE'S CONSENT(1)
I acknowledge that I have read the
foregoing Non-Qualified Stock Option Agreement
and understand the contents thereof.

]

(1) A spouse's consent is required only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

DESIGNATED BENEFICIARY:

Beneficiary's Address:

Appendix A

STOCK OPTION EXERCISE NOTICE

Blueprint Medicines Corporation
Attention: [ ]

Pursuant to the terms of the stock option agreement between the undersigned and Blueprint Medicines Corporation (the "Company") dated (the "Agreement") under the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan, I, [Insert Name] , hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of $ representing the purchase price for [Fill in number of Underlying Shares] Underlying Shares. I have chosen the following form(s) of payment:

o 1. Cash
o 2. Certified or bank check payable to Blueprint MedicinesCorporation
o 3. Other (as referenced in the Agreement and described in the Plan (please describe))

.

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

(i) I am purchasing the Underlying Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.

(iii) I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Underlying Shares and to make an informed investment decision with respect to such purchase.

(iv) I can afford a complete loss of the value of the Option Shares and am able to bear the economic risk of holding such Option Shares for an indefinite period of time.

(v) I understand that the Option Shares may not be registered under the Securities Act of 1933 (it being understood that the Option Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable

state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Option Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Option Shares will include similar restrictive notations.

Sincerely yours,

_____
Name:

Address:

EARLY EXERCISE
NON-QUALIFIED STOCK OPTION AGREEMENT
UNDER THE BLUEPRINT MEDICINES CORPORATION
2011 STOCK OPTION AND GRANT PLAN

Name of Optionee: (the "Optionee")

No. of Option Shares: Shares of Common Stock

Grant Date:

Vesting Commencement Date: (the "Vesting Commencement Date")

Expiration Date: (the "Expiration Date")

Option Exercise Price/Share: $ (the "Option Exercise Price")

Pursuant to the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan, as amended (the "Plan"), Blueprint Medicines Corporation, a Delaware corporation (together with any successor thereto, the "Company"), hereby grants to the Optionee, who is an officer, employee, director, Consultant or other key person of the Company or any of its Subsidiaries, an option (the "Stock Option") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value $0.001 per share ("Common Stock"), of the Company indicated above (the "Option Shares"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Early Exercise Non-Qualified Stock Option Agreement (this "Agreement") and in the Plan. This Stock Option is not intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "Code").

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Plan.

1. Vesting, Exercisability and Termination.

(a) Early Exercise Permitted. This Stock Option shall be immediately exercisable, regardless of whether the Option Shares are vested.

(b) Vesting Schedule. Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, the Option Shares shall be vested on the respective dates indicated below:

[VESTING SCHEDULE]

Notwithstanding anything herein to the contrary, in the case of a Sale Event, this Stock Option and the Option Shares shall be treated as provided in Section 3(c) of the Plan**[provided; however INSERT ANY ACCELERATED VESTING PROVISION HERE]**.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or disability (as defined in Section 422(c) of the Code), this Stock Option may continue to be exercised, to the extent the Option Shares are vested on the date of termination, by the Optionee, the Optionee's legal representative or legatee for a period of 12 months from the date of death or disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or disability (as defined in Section 422(c) of the Code), and unless otherwise determined by the Committee, this Stock Option may continue to be exercised, to the extent the Option Shares are vested on the date of termination, for a period of 90 days from the date of termination or until the Expiration Date or other termination date, if earlier; provided however, if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees and any Permitted Transferee. Any portion of this Stock Option with respect to Option Shares that are not vested on the date of termination of the Service Relationship shall terminate immediately and be null and void.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Option Shares. Such notice shall specify the number of Option Shares to be purchased. To the extent this Stock Option is only partially exercised, such exercise shall first be with respect to the Option Shares, if any, that have previously vested, and then with respect to the Option Shares that will next vest, with the Option Shares that vest at the latest date being exercised last. Payment of the purchase price may be made by one or more of the methods described in Section 5(a)(iv) of the Plan, subject to the limitations contained in such Section of the Plan (and in any subsections thereof), including the requirement that the Committee specifically approve in advance certain payment methods.

(b) In the event the Optionee exercises a portion of this Stock Option with respect to Option Shares that have not vested, the Optionee shall also deliver a Restricted Stock Agreement covering such unvested Option Shares in the form of Appendix B hereto (the "Restricted Stock Agreement") with the same vesting schedule for such Option Shares as set forth for such Option Shares herein.

(c) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Agreement is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee's lifetime only by the Optionee (or by the Optionee's guardian or personal representative in the event of the Optionee's incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee's Stock Option in the event of the Optionee's death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee's death.

5. Restrictions on Transfer of Option Shares. The Option Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan and, if applicable, the Restricted Stock Agreement.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of shares of the Company's stock, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, Option Shares.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope hereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law

principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by e-mail or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, permitted assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(j) [Employment / Consulting] Agreement. Optionee acknowledges that this Agreement has been executed and delivered, and the Stock Option granted hereunder has been issued, pursuant to, and in full satisfaction of, the Company's obligations under Section [ ] of the [Employment / Consulting] Agreement, dated , by and between the Company and Optionee.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

BLUEPRINT MEDICINES CORPORATION

By: _____

Name:
Title:

Address:

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that the Stock Option granted hereby is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan and this Agreement, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

_____

Name:

Address:

[SPOUSE'S CONSENT(1)
I acknowledge that I have read the
foregoing Non-Qualified Stock Option Agreement
and understand the contents thereof.

]

(1) A spouse's consent is required only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

Appendix

A STOCK OPTION EXERCISE NOTICE

Blueprint Medicines Corporation
Attention: [ ]

Pursuant to the terms of the stock option agreement between the undersigned and Blueprint Medicines Corporation (the "Company") dated (the "Agreement") under the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan, I, [Insert Name] , hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of $ representing the purchase price for [Fill in number of Option Shares] Option Shares. I have chosen the following form(s) of payment:

- o 1. Cash
- o 2. Certified or bank check payable to Blueprint Medicines Corporation
- o 3. Other (as referenced in the Agreement and described in the Plan (please describe))

.

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

(i) I am purchasing the Option Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.

(iii) I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Option Shares and to make an informed investment decision with respect to such purchase.

(iv) I can afford a complete loss of the value of the Option Shares and am able to bear the economic risk of holding such Option Shares for an indefinite period of time.

(v) I understand that the Option Shares may not be registered under the Securities Act of 1933 (it being understood that the Option Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or

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disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Option Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Option Shares will include similar restrictive notations.

(vi) To the extent required, I have executed and delivered to the Company the Restricted Stock Agreement attached as Appendix B to the Agreement.

Sincerely yours,

Name:

Address:

RESTRICTED STOCK AWARD NOTICE
UNDER THE BLUEPRINT MEDICINES CORPORATION
2011 STOCK OPTION AND GRANT PLAN

Pursuant to the Blueprint Medicines Corporation 2011 Stock Option and Grant Plan (as amended, the "Plan"), Blueprint Medicines Corporation, a Delaware corporation (together with any successor, the "Company"), hereby grants, sells and issues to the individual named below, the Shares at the Per Share Purchase Price, subject to the terms and conditions set forth in this Restricted Stock Award Notice (the "Award Notice"), the attached Restricted Stock Agreement (the "Agreement") and the Plan. This Award is a Restricted Stock Award under the Plan. The Grantee agrees to the provisions set forth herein and acknowledges that each such provision is a material condition of the Company's agreement to issue and sell the Shares to him or her. The Company hereby acknowledges receipt of $**[ ]** in full payment for the Shares. All references to share prices and amounts herein shall be equitably adjusted to reflect stock splits, stock dividends, recapitalizations, mergers, reorganizations and similar changes affecting the capital stock of the Company, and any shares of capital stock of the Company received on or in respect of Shares in connection with any such event (including any shares of capital stock or any right, option or warrant to receive the same or any security convertible into or exchangeable for any such shares or received upon conversion of any such shares) shall be subject to this Agreement on the same basis and extent at the relevant time as the Shares in respect of which they were issued, and shall be deemed Shares as if and to the same extent they were issued at the date hereof.

Name of Grantee:	(the "Grantee")
No. of Shares:	Shares of Common Stock (the "Shares")
Grant Date:	,
Vesting Commencement Date:	, (the "Vesting Commencement Date")
Per Share Purchase Price:	$ (the "Per Share Purchase Price")
Vesting Schedule:	Twenty-five percent (25%) of the Shares shall vest on the first anniversary of the Vesting Commencement Date; provided that the Grantee continues to have a Service Relationship with the Company at such time. Thereafter, the remaining seventy-five percent (75%) of the Shares shall vest in thirty-six (36) equal monthly installments at the end of each month following the first anniversary of the Vesting Commencement Date, provided the Grantee continues to have a Service Relationship with the Company at such time. Notwithstanding anything in the Agreement to the contrary in the case of a Sale Event, the Shares

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of Restricted Stock shall be treated as provided in Section 3(c) of the Plan.

Attachments: Restricted Stock Agreement, Blueprint Medicines Corporation 2011 Stock Option and Grant Plan

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RESTRICTED STOCK AGREEMENT
UNDER THE BLUEPRINT MEDICINES CORPORATION
2011 STOCK OPTION AND GRANT PLAN

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Award Notice and the Plan.

1. Purchase and Sale of Shares; Vesting; Investment Representations.

(a) Purchase and Sale. The Company hereby sells to the Grantee, and the Grantee hereby purchases from the Company, the number of Shares set forth in the Award Notice for the Per Share Purchase Price.

(b) Vesting. Initially, all of the Shares are non-transferable and subject to a substantial risk of forfeiture and are Shares of Restricted Stock. The risk of forfeiture shall lapse with respect to the Shares on the respective dates indicated on the Vesting Schedule set forth in the Award Notice.

(c) Investment Representations. In connection with the purchase and sale of the Shares contemplated by Section 1(a) above, the Grantee hereby represents and warrants to the Company as follows:

(i) The Grantee is purchasing the Shares for the Grantee's own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) The Grantee has had such an opportunity as he or she has deemed adequate to obtain from the Company such information as is necessary to permit him or her to evaluate the merits and risks of the Grantee's investment in the Company and has consulted with the Grantee's own advisers with respect to the Grantee's investment in the Company.

(iii) The Grantee has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(iv) The Grantee can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(v) The Grantee understands that the Shares are not registered under the Act (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Act and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirements thereof). The Grantee further acknowledges that certificates representing the Shares will bear

restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) The Grantee has read and understands the Plan and acknowledges and agrees that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(vii) The Grantee understands and agrees that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(viii) The Grantee understands and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(ix) The Grantee understands and agrees that the Grantee may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

2. Repurchase Right. Upon a Termination Event or a Repurchase Event, the Company shall have the right to repurchase the Shares as set forth in Section 9(c) of the Plan.

3. Restrictions on Transfer of Shares. The Shares (whether or not vested) shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Restricted Stock Award shall be subject to and governed by all the terms and conditions of the Plan.

5. Miscellaneous Provisions.

(a) Record Owner; Dividends. The Grantee and any Permitted Transferees, during the duration of this Agreement, shall be considered the record owners of and shall be entitled to vote the Shares if and to the extent the Shares are entitled to voting rights. The Grantee and any Permitted Transferees shall be entitled to receive all dividends and any other distributions declared on the Shares; provided, however, that the Company is under no duty to declare any such dividends or to make any such distribution.

(b) Section 83(b) Election. The Grantee shall consult with the Grantee's tax advisor to determine whether it would be appropriate for the Grantee to make an election under Section 83(b) of the Code with respect to this Award. Any such election must be filed with the Internal Revenue Service within 30 days of the date of this Award. If the Grantee makes an election under Section 83(b) of the Code, the Grantee shall give prompt notice to the Company (and provide a copy of such election to the Company).

(c) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(d) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(e) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of The Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of The Commonwealth of Massachusetts.

(f) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(g) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(h) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(i) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(j) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(k) Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

6. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or the Shares, this Agreement, or the breach, termination or validity of the Plan, the Shares or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the "J.A.M.S. Rules"). The arbitration shall be governed by the United States Arbitration Act, 9

U.S.C. Sections 1 - 16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Boston, Massachusetts.

(b) The arbitration shall commence within 60 days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party's witness or expert. The arbitrator's decision and award shall be made and delivered within six months of the selection of the arbitrator. The arbitrator's decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Grantee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a "Party") covenants and agrees that such party will participate in the arbitration in good faith. This Section 6 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above named courts, that its property is exempt or immune from attachment or execution (except as protected by applicable law), that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

[SIGNATURE PAGE FOLLOWS]

The foregoing Restricted Stock Agreement is hereby accepted and the terms and conditions thereof are hereby agreed to by the undersigned as of the date first above written.

BLUEPRINT MEDICINES CORPORATION

By: _____

Name:

Title:

Address:

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof and understands that the Shares granted hereby are subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Award Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 6 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

Name:

Address:

BLUEPRINT MEDICINES CORPORATION

2015 STOCK OPTION AND INCENTIVE PLAN

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the Blueprint Medicines Corporation 2015 Stock Option and Incentive Plan (the "Plan"). The purpose of the Plan is to encourage and enable the officers, employees, Non-Employee Directors and other key persons (including Consultants) of Blueprint Medicines Corporation (the "Company") and its Subsidiaries upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. It is anticipated that providing such persons with a direct stake in the Company's welfare will assure a closer identification of their interests with those of the Company and its stockholders, thereby stimulating their efforts on the Company's behalf and strengthening their desire to remain with the Company.

The following terms shall be defined as set forth below:

"*Act*" means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

"*Administrator*" means either the Board or the compensation committee of the Board or a similar committee performing the functions of the compensation committee and which is comprised of not less than two Non-Employee Directors who are independent.

"*Award*" or "*Awards,*" except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Units, Restricted Stock Awards, Unrestricted Stock Awards, Cash-Based Awards, Performance Share Awards and Dividend Equivalent Rights.

"*Award Certificate*" means a written or electronic document setting forth the terms and provisions applicable to an Award granted under the Plan. Each Award Certificate is subject to the terms and conditions of the Plan.

"*Board*" means the Board of Directors of the Company.

"*Cash-Based Award*" means an Award entitling the recipient to receive a cash-denominated payment.

"*Code*" means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

"*Consultant*" means any natural person that provides bona fide services to the Company, and such services are not in connection with the offer or sale of securities in a capital-raising transaction and do not directly or indirectly promote or maintain a market for the Company's securities.

"*Covered Employee*" means an employee who is a "Covered Employee" within the meaning of Section 162(m) of the Code.

"*Dividend Equivalent Right*" means an Award entitling the grantee to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other award to which it relates) if such shares had been issued to and held by the grantee.

"*Effective Date*" means the date set forth in Section 21.

"*Exchange Act*" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

"*Fair Market Value*" of the Stock on any given date means the fair market value of the Stock determined in good faith by the Administrator; provided, however, that if the Stock is admitted to quotation on the NASDAQ Capital Market, the NASDAQ Global Market, the NASDAQ Global Select Market, the New York Stock Exchange or another national securities exchange, the determination shall be made by reference to the closing price of the Stock. If there is no closing price for such date, the determination shall be made by reference to the last date preceding such date for which there is a closing price; provided further, however, that if the date for which Fair Market Value is determined is the first day when trading prices for the Stock are reported on a national securities exchange, the Fair Market Value shall be the "Price to the Public" (or equivalent) set forth on the cover page for the final prospectus relating to the Company's Initial Public Offering.

"*Incentive Stock Option*" means any Stock Option designated and qualified as an "incentive stock option" as defined in Section 422 of the Code.

"*Initial Public Offering*" means the consummation of the first underwritten, firm commitment public offering pursuant to an effective registration statement under the Act covering the offer and sale by the Company of its equity securities, or such other event as a result of or following which the Stock shall be publicly held.

"*Non-Employee Director*" means a member of the Board who is not also an employee of the Company or any Subsidiary.

"*Non-Qualified Stock Option*" means any Stock Option that is not an Incentive Stock Option.

"*Option*" or "*Stock Option*" means any option to purchase shares of Stock granted pursuant to Section 5.

"*Performance-Based Award*" means any Restricted Stock Award, Restricted Stock Units, Performance Share Award or Cash-Based Award granted to a Covered Employee that is intended to qualify as "performance-based compensation" under Section 162(m) of the Code and the regulations promulgated thereunder.

"*Performance Criteria*" means the criteria that the Administrator selects for purposes of establishing the Performance Goal or Performance Goals for an individual for a Performance Cycle. The Performance Criteria (which shall be applicable to the organizational level specified by the Administrator, including, but not limited to, the Company or a unit, division, group, or Subsidiary of the Company) that will be used to establish Performance Goals are limited to the following: achievement of specified research and development, publication, clinical and/or regulatory milestones, total shareholder return, earnings before interest, taxes, depreciation and amortization, net income (loss) (either before or after interest, taxes, depreciation and/or amortization), changes in the market price of the Stock, economic value-added, funds from operations or similar measure, sales or revenue, acquisitions or strategic transactions, operating income (loss), cash flow (including, but not limited to, operating cash flow and free cash flow), return on capital, assets, equity, or investment, return on sales, gross or net profit levels, productivity, expense, margins, operating efficiency, customer satisfaction, working capital, earnings (loss) per share of Stock, sales or market shares and number of customers, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group.

"*Performance Cycle*" means one or more periods of time, which may be of varying and overlapping durations, as the Administrator may select, over which the attainment of one or more Performance Criteria will be measured for the purpose of determining a grantee's right to and the payment of a Restricted Stock Award, Restricted Stock Units, Performance Share Award or Cash-Based Award, the vesting and/or payment of which is subject to the attainment of one or more Performance Goals. Each such period shall not be less than 12 months.

"*Performance Goals*" means, for a Performance Cycle, the specific goals established in writing by the Administrator for a Performance Cycle based upon the Performance Criteria.

"*Performance Share Award*" means an Award entitling the recipient to acquire shares of Stock upon the attainment of specified Performance Goals.

"*Restricted Stock Award*" means an Award of shares of Stock subject to such restrictions and conditions as the Administrator may determine at the time of grant.

"*Restricted Stock Units*" means an Award of phantom stock units to a grantee.

"*Sale Event*" shall mean (i) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (ii) a merger, reorganization or consolidation pursuant to which the holders of the Company's outstanding voting power and outstanding stock immediately prior to such transaction do not own a majority of the outstanding voting power and outstanding stock or other equity interests of the resulting or successor entity (or its ultimate parent, if applicable) immediately upon completion of such transaction, (iii) the sale of all of the Stock of the Company to an unrelated person, entity or group thereof acting in concert, or (iv) any other transaction in which the owners of the Company's outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the Company or any successor entity immediately upon completion of the transaction other than as a result of the acquisition of securities directly from the Company.

"*Sale Price*" means the value as determined by the Administrator of the consideration payable, or otherwise to be received by stockholders, per share of Stock pursuant to a Sale Event.

"*Section 409A*" means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

"*Stock*" means the Common Stock, par value $0.001 per share, of the Company, subject to adjustments pursuant to Section 3.

"*Stock Appreciation Right*" means an Award entitling the recipient to receive shares of Stock having a value equal to the excess of the Fair Market Value of the Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

"*Subsidiary*" means any corporation or other entity (other than the Company) in which the Company has at least a 50 percent interest, either directly or indirectly.

"*Ten Percent Owner*" means an employee who owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent or subsidiary corporation.

"*Unrestricted Stock Award*" means an Award of shares of Stock free of any restrictions.

SECTION 2. ADMINISTRATION OF PLAN; ADMINISTRATOR AUTHORITY TO SELECT GRANTEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Administrator.

(b) Powers of Administrator. The Administrator shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

(i) to select the individuals to whom Awards may from time to time be granted;

(ii) to determine the time or times of grant, and the extent, if any, of Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Awards, Restricted Stock Units, Unrestricted Stock Awards, Cash-Based Awards, Performance Share Awards and Dividend Equivalent Rights, or any combination of the foregoing, granted to any one or more grantees;

(iii) to determine the number of shares of Stock to be covered by any Award;

(iv) to determine and modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and grantees, and to approve the forms of Award Certificates;

(v) to accelerate at any time the exercisability or vesting of all or any portion of any Award provided that the Administrator generally shall not exercise such discretion to accelerate Awards subject to Sections 7 and 8 except in the event of the grantee's death, disability or retirement, or a change in control of the Company (including a Sale Event);

(vi) subject to the provisions of Section 5(b), to extend at any time the period in which Stock Options may be exercised; and

(vii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including related written instruments); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.

All decisions and interpretations of the Administrator shall be binding on all persons, including the Company and Plan grantees.

(c) Delegation of Authority to Grant Awards. Subject to applicable law, the Administrator, in its discretion, may delegate to the Chief Executive Officer of the Company all or part of the Administrator's authority and duties with respect to the granting of Awards to individuals who are (i) not subject to the reporting and other provisions of Section 16 of the Exchange Act and (ii) not Covered Employees. Any such delegation by the Administrator shall include a limitation as to the amount of Awards that may be granted during the period of the delegation and shall contain guidelines as to the determination of the exercise price and the vesting criteria. The Administrator may revoke or amend the terms of a delegation at any time but such action shall not invalidate any prior actions of the Administrator's delegate or delegates that were consistent with the terms of the Plan.

(d) Award Certificate. Awards under the Plan shall be evidenced by Award Certificates that set forth the terms, conditions and limitations for each Award which may include, without limitation, the term of an Award and the provisions applicable in the event employment or service terminates.

(e) Indemnification. Neither the Board nor the Administrator, nor any member of either or any delegate thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the Plan, and the members of the Board and the Administrator (and any delegate thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under the Company's articles of incorporation or bylaws or any directors' and officers' liability insurance coverage which may be in effect from time to time and/or any indemnification agreement between such individual and the Company.

(f) Foreign Award Recipients. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and its Subsidiaries operate or have employees or other individuals eligible for Awards, the

Administrator, in its sole discretion, shall have the power and authority to: (i) determine which Subsidiaries shall be covered by the Plan; (ii) determine which individuals outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to individuals outside the United States to comply with applicable foreign laws; (iv) establish subplans and modify exercise procedures and other terms and procedures, to the extent the Administrator determines such actions to be necessary or advisable (and such subplans and/or modifications shall be attached to this Plan as appendices); provided, however, that no such subplans and/or modifications shall increase the share limitations contained in Section 3(a) hereof; and (v) take any action, before or after an Award is made, that the Administrator determines to be necessary or advisable to obtain approval or comply with any local governmental regulatory exemptions or approvals. Notwithstanding the foregoing, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate the Exchange Act or any other applicable United States securities law, the Code, or any other applicable United States governing statute or law.

SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS; SUBSTITUTION

(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be shares (the "Initial Limit"), subject to adjustment as provided in Section 3(c), plus on January 1, 2016 and each January 1 thereafter, the number of shares of Stock reserved and available for issuance under the Plan shall be cumulatively increased by [4]% percent of the number of shares of Stock issued and outstanding on the immediately preceding December 31 or such lesser number of shares of Stock as determined by the Administrator (the "Annual Increase"). Subject to such overall limitation, the maximum aggregate number of shares of Stock that may be issued in the form of Incentive Stock Options shall not exceed the Initial Limit cumulatively increased on January 1, 2016 and on each January 1 thereafter by the lesser of the Annual Increase for such year or shares of Stock, subject in all cases to adjustment as provided in Section 3(c). The shares of Stock underlying any Awards under the Plan and under the Company's Amended and Restated 2011 Stock Option and Grant Plan, as amended, that are forfeited, canceled, held back upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) shall be added back to the shares of Stock available for issuance under the Plan. In the event the Company repurchases shares of Stock on the open market, such shares shall not be added to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award; provided, however, that Stock Options or Stock Appreciation Rights with respect to no more than shares of Stock may be granted to any one individual grantee during any one calendar year period. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company.

(b) [Reserved]

(c) Changes in Stock. Subject to Section 3(d) hereof, if, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding shares of Stock are increased or decreased or are exchanged for a different number or kind of shares or other

securities of the Company, or additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Stock or other securities, or, if, as a result of any merger or consolidation, sale of all or substantially all of the assets of the Company, the outstanding shares of Stock are converted into or exchanged for securities of the Company or any successor entity (or a parent or subsidiary thereof), the Administrator shall make an appropriate or proportionate adjustment in (i) the maximum number of shares reserved for issuance under the Plan, including the

maximum number of shares that may be issued in the form of Incentive Stock Options, (ii) the number of Stock Options or Stock Appreciation Rights that can be granted to any one individual grantee and the maximum number of shares that may be granted under a Performance-Based Award, (iii) the number and kind of shares or other securities subject to any then outstanding Awards under the Plan, (iv) the repurchase price, if any, per share subject to each outstanding Restricted Stock Award, and (v) the exercise price for each share subject to any then outstanding Stock Options and Stock Appreciation Rights under the Plan, without changing the aggregate exercise price (i.e., the exercise price multiplied by the number of Stock Options and Stock Appreciation Rights) as to which such Stock Options and Stock Appreciation Rights remain exercisable. The Administrator shall also make equitable or proportionate adjustments in the number of shares subject to outstanding Awards and the exercise price and the terms of outstanding Awards to take into consideration cash dividends paid other than in the ordinary course or any other extraordinary corporate event. The adjustment by the Administrator shall be final, binding and conclusive. No fractional shares of Stock shall be issued under the Plan resulting from any such adjustment, but the Administrator in its discretion may make a cash payment in lieu of fractional shares.

(d) Mergers and Other Transactions. Except as the Administrator may otherwise specify with respect to particular Awards in the relevant Award Certificate, in the case of and subject to the consummation of a Sale Event, the parties thereto may cause the assumption or continuation of Awards theretofore granted by the successor entity, or the substitution of such Awards with new Awards of the successor entity or parent thereof, with appropriate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree. To the extent the parties to such Sale Event do not provide for the assumption, continuation or substitution of Awards, the Plan and all outstanding Awards hereunder will terminate at the effective time of such Sale Event. Notwithstanding the foregoing, the Administrator may in its discretion, or to the extent specified in the relevant Award Certificate, cause certain Awards to become vested and/or exercisable immediately prior to such Sale Event. In the event of such termination, (i) the Company shall have the right, but not the obligation, to make or provide for a cash payment to the grantees holding Options and Stock Appreciation Rights, in exchange for the cancellation thereof, in an amount equal to the difference between (A) the Sale Price multiplied by the number of shares of Stock subject to outstanding Options and Stock Appreciation Rights (to the extent then exercisable after taking into account any acceleration thereunder at prices not in excess of the Sale Price) and (B) the aggregate exercise price of all such outstanding Options and Stock Appreciation Rights or (ii) each grantee shall be permitted, within a specified period of time prior to the consummation of the Sale Event as determined by the Administrator, to exercise all outstanding Options and Stock Appreciation Rights (to the extent then exercisable) held by such grantee, including those that will become exercisable upon the consummation of the Sale Event (provided that such exercise shall be subject to the consummation of the Sale Event). The Company shall also have the right, but not the obligation, to make or provide a cash payment to the grantees holding other Awards,

in exchange for cancellation thereof an amount equal to the Sale Price multiplied by the number of shares subject to such Awards, to be paid at the time of the Sale Event or upon the later vesting of such Awards

SECTION 4. ELIGIBILITY

Grantees under the Plan will be such full or part-time officers and other employees, Non-Employee Directors and key persons (including Consultants) of the Company and its Subsidiaries as are selected from time to time by the Administrator in its sole discretion.

SECTION 5. STOCK OPTIONS

Any Stock Option granted under the Plan shall be in such form as the Administrator may from time to time approve.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a “subsidiary corporation” within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

Stock Options granted pursuant to this Section 5 shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Administrator shall deem desirable. If the Administrator so determines, Stock Options may be granted in lieu of cash compensation at the optionee’s election, subject to such terms and conditions as the Administrator may establish.

(a) Exercise Price. The exercise price per share for the Stock covered by a Stock Option granted pursuant to this Section 5 shall be determined by the Administrator at the time of grant but shall not be less than one hundred percent (100%) of the Fair Market Value on the date of grant. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the option price of such Incentive Stock Option shall be not less than one hundred ten percent (110%) of the Fair Market Value on the grant date.

(b) Option Term. The term of each Stock Option shall be fixed by the Administrator, but no Stock Option shall be exercisable more than ten years after the date the Stock Option is granted. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the term of such Stock Option shall be no more than five years from the date of grant.

(c) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable at such time or times, whether or not in installments, as shall be determined by the Administrator at or after the grant date. The Administrator may at any time accelerate the exercisability of all or any portion of any Stock Option. An optionee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options.

(d) Method of Exercise. Stock Options may be exercised in whole or in part, by giving written or electronic notice of exercise to the Company, specifying the number of shares

to be purchased. Payment of the purchase price may be made by one or more of the following methods to the extent provided in the Option Award Certificate:

(i) In cash, by certified or bank check or other instrument acceptable to the Administrator;

(ii) Through the delivery (or attestation to the ownership) of shares of Stock that are not then subject to restrictions under any Company plan. Such surrendered shares shall be valued at Fair Market Value on the exercise date;

(iii) By the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; provided that in the event the optionee chooses to

pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; or

(iv) With respect to Stock Options that are not Incentive Stock Options, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price.

Payment instruments will be received subject to collection. The transfer to the optionee on the records of the Company or of the transfer agent of the shares of Stock to be purchased pursuant to the exercise of a Stock Option will be contingent upon receipt from the optionee (or a purchaser acting in his stead in accordance with the provisions of the Stock Option) by the Company of the full purchase price for such shares and the fulfillment of any other requirements contained in the Option Award Certificate or applicable provisions of laws (including the satisfaction of any withholding taxes that the Company is obligated to withhold with respect to the optionee). In the event an optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the optionee upon the exercise of the Stock Option shall be net of the number of attested shares. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the exercise of Stock Options, such as a system using an internet website or interactive voice response, then the paperless exercise of Stock Options may be permitted through the use of such an automated system.

(e) Annual Limit on Incentive Stock Options. To the extent required for "incentive stock option" treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the time of grant) of the shares of Stock with respect to which Incentive Stock Options granted under this Plan and any other plan of the Company or its parent and subsidiary corporations become exercisable for the first time by an optionee during any calendar year shall not exceed $100,000. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option.

SECTION 6. STOCK APPRECIATION RIGHTS

(a) Exercise Price of Stock Appreciation Rights. The exercise price of a Stock Appreciation Right shall not be less than one hundred percent (100%) of the Fair Market Value of the Stock on the date of grant.

(b) Grant and Exercise of Stock Appreciation Rights. Stock Appreciation Rights may be granted by the Administrator independently of any Stock Option granted pursuant to Section 5 of the Plan.

(c) Terms and Conditions of Stock Appreciation Rights. Stock Appreciation Rights shall be subject to such terms and conditions as shall be determined from time to time by the Administrator. The term of a Stock Appreciation Right may not exceed ten years.

SECTION 7. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. The Administrator may grant Restricted Stock Awards under the Plan. A Restricted Stock Award is any Award of Stock (the "Restricted Shares") subject to such restrictions and conditions as the Administrator may determine at the time of grant. Conditions may be based on continuing employment (or other service relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of each such Award Certificate shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees.

(b) Rights as a Stockholder. Upon the grant of the Restricted Stock Award and payment of any applicable purchase price, a grantee shall have the rights of a stockholder with respect to the voting of the Restricted Shares and receipt of dividends; provided that if the lapse of restrictions with respect to the Restricted Stock Award is tied to the attainment of performance goals, any dividends paid by the Company during the performance period shall accrue and shall not be paid to the grantee until and to the extent the performance goals are met with respect to the Restricted Stock Award. Unless the Administrator shall otherwise determine, (i) uncertificated Restricted Shares shall be accompanied by a notation on the records of the Company or the transfer agent to the effect that they are subject to forfeiture until such Restricted Shares are vested as provided in Section 7(d) below, and (ii) certificated Restricted Shares shall remain in the possession of the Company until such Restricted Shares are vested as provided in Section 7(d) below, and the grantee shall be required, as a condition of the grant, to deliver to the Company such instruments of transfer as the Administrator may prescribe.

(c) Restrictions. Restricted Shares may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Restricted Stock Award Certificate. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, if a grantee's employment (or other service relationship) with the Company and its Subsidiaries terminates for any reason, any Restricted Shares that have not vested at the time of termination shall automatically and without any requirement of notice to such grantee from or other action by or on behalf of, the Company be deemed to have been reacquired by the Company at its original purchase price (if any) from such grantee or such grantee's legal representative simultaneously

with such termination of employment (or other service relationship), and thereafter shall cease to represent any ownership of the Company by the grantee or rights of the grantee as a stockholder. Following such deemed reacquisition of Restricted Shares that are represented by physical certificates, a grantee shall surrender such certificates to the Company upon request without consideration.

(d) Vesting of Restricted Shares. The Administrator at the time of grant shall specify the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which the non-transferability of the Restricted Shares and the Company's right of repurchase or forfeiture shall lapse. Subsequent to such date or dates and/or the attainment of such pre-established performance goals, objectives and other conditions, the shares on which all restrictions have lapsed shall no longer be Restricted Shares and shall be deemed "vested."

SECTION 8. RESTRICTED STOCK UNITS

(a) Nature of Restricted Stock Units. The Administrator may grant Restricted Stock Units under the Plan. A Restricted Stock Unit is an Award of stock units that may be settled in shares of Stock upon the satisfaction of such restrictions and conditions at the time of grant. Conditions may be based on continuing employment (or other service relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of each such Award Certificate shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees. Except in the

case of Restricted Stock Units with a deferred settlement date that complies with Section 409A, at the end of the vesting period, the Restricted Stock Units, to the extent vested, shall be settled in the form of shares of Stock. Restricted Stock Units with deferred settlement dates are subject to Section 409A and shall contain such additional terms and conditions as the Administrator shall determine in its sole discretion in order to comply with the requirements of Section 409A.

(b) Election to Receive Restricted Stock Units in Lieu of Compensation. The Administrator may, in its sole discretion, permit a grantee to elect to receive a portion of future cash compensation otherwise due to such grantee in the form of an award of Restricted Stock Units. Any such election shall be made in writing and shall be delivered to the Company no later than the date specified by the Administrator and in accordance with Section 409A and such other rules and procedures established by the Administrator. Any such future cash compensation that the grantee elects to defer shall be converted to a fixed number of Restricted Stock Units based on the Fair Market Value of Stock on the date the compensation would otherwise have been paid to the grantee if such payment had not been deferred as provided herein. The Administrator shall have the sole right to determine whether and under what circumstances to permit such elections and to impose such limitations and other terms and conditions thereon as the Administrator deems appropriate. Any Restricted Stock Units that are elected to be received in lieu of cash compensation shall be fully vested, unless otherwise provided in the Award Certificate.

(c) Rights as a Stockholder. A grantee shall have the rights as a stockholder only as to shares of Stock acquired by the grantee upon settlement of Restricted Stock Units; provided, however, that the grantee may be credited with Dividend Equivalent Rights with respect to the stock units underlying his Restricted Stock Units, subject to the provisions of Section 13 and such terms and conditions as the Administrator may determine.

(d) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, a grantee's right in all Restricted Stock Units that have not vested shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

SECTION 9. UNRESTRICTED STOCK AWARDS

Grant or Sale of Unrestricted Stock. The Administrator may, in its sole discretion, grant (or sell at par value or such higher purchase price determined by the Administrator) an Unrestricted Stock Award under the Plan. Unrestricted Stock Awards may be granted in respect of past services or other valid consideration, or in lieu of cash compensation due to such grantee.

SECTION 10. CASH-BASED AWARDS

Grant of Cash-Based Awards. The Administrator may, in its sole discretion, grant Cash-Based Awards to any grantee in such number or amount and upon such terms, and subject to such conditions, as the Administrator shall determine at the time of grant. The Administrator shall determine the maximum duration of the Cash-Based Award, the amount of cash to which the Cash-Based Award pertains, the conditions upon which the Cash-Based Award shall become vested or payable, and such other provisions as the Administrator shall determine. Each Cash-Based Award shall specify a cash-denominated payment amount, formula or payment ranges as determined by the Administrator. Payment, if any, with respect to a Cash-Based Award shall be made in accordance with the terms of the Award and may be made in cash or in shares of Stock, as the Administrator determines.

SECTION 11. PERFORMANCE SHARE AWARDS

(a) Nature of Performance Share Awards. The Administrator may, in its sole discretion, grant Performance Share Awards independent of, or in connection with, the granting of any other Award under the Plan. The Administrator shall determine whether and to whom Performance Share Awards shall be granted, the Performance Goals, the periods during which performance is to be measured, which may not be less than one year except in the case of a Sale Event, and such other limitations and conditions as the Administrator shall determine.

(b) Rights as a Stockholder. A grantee receiving a Performance Share Award shall have the rights of a stockholder only as to shares actually received by the grantee under the Plan and not with respect to shares subject to the Award but not actually received by the grantee. A grantee shall be entitled to receive shares of Stock under a Performance Share Award only upon satisfaction of all conditions specified in the Performance Share Award Certificate (or in a performance plan adopted by the Administrator).

(c) Termination. Except as may otherwise be provided by the Administrator either in the Award agreement or, subject to Section 18 below, in writing after the Award is issued, a grantee's rights in all Performance Share Awards shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

SECTION 12. PERFORMANCE-BASED AWARDS TO COVERED EMPLOYEES

(a) Performance-Based Awards. Any employee or other key person providing services to the Company and who is selected by the Administrator may be granted one or more Performance-Based Awards in the form of a Restricted Stock Award, Restricted Stock Units, Performance Share Awards or Cash-Based Award payable upon the attainment of Performance Goals that are established by the Administrator and relate to one or more of the Performance Criteria, in each case on a specified date or dates or over any period or periods determined by the Administrator. The Administrator shall define in an objective fashion the manner of calculating the Performance Criteria it selects to use for any Performance Cycle. Depending on the Performance Criteria used to establish such Performance Goals, the Performance Goals may be expressed in terms of overall Company performance or the performance of a division, business unit, or an individual. The Administrator, in its discretion, may adjust or modify the calculation of Performance Goals for such Performance Cycle in order to prevent the dilution or enlargement of the rights of an individual (i) in the event of, or in anticipation of, any unusual or extraordinary corporate item, transaction, event or development, (ii) in recognition of, or in anticipation of, any other unusual or nonrecurring events affecting the Company, or the financial statements of the Company, or (iii) in response to, or in anticipation of, changes in applicable laws, regulations, accounting principles, or business conditions; provided, however, that the Administrator may not exercise such discretion in a manner that would increase the Performance-Based Award granted to a Covered Employee. Each Performance-Based Award shall comply with the provisions set forth below.

(b) Grant of Performance-Based Awards. With respect to each Performance-Based Award granted to a Covered Employee (or any other eligible individual that the Administrator determines is reasonably likely to become a Covered Employee), the Administrator shall select, within the first 90 days of a Performance Cycle (or, if shorter, within the maximum period allowed under Section 162(m) of the Code) the Performance Criteria for such grant, and the

Performance Goals with respect to each Performance Criterion (including a threshold level of performance below which no amount will become payable with respect to such Award). Each Performance-Based Award will specify the amount payable, or the formula for determining the amount payable, upon achievement of the various applicable performance targets. The Performance Criteria established by the Administrator may be (but need not be) different for each Performance Cycle and different Performance Goals may be applicable to Performance-Based Awards to different Covered Employees.

(c) Payment of Performance-Based Awards. Following the completion of a Performance Cycle, the Administrator shall meet to review and certify in writing whether, and to what extent, the Performance Goals for the Performance Cycle have been achieved and, if so, to also calculate and certify in writing the amount of the Performance-Based Awards earned for the Performance Cycle. The Administrator shall then determine the actual size of each Covered Employee's Performance-Based Award, and, in doing so, may reduce or eliminate the amount of the Performance-Based Award for a Covered Employee if, in its sole judgment, such reduction or elimination is appropriate.

(d) Maximum Award Payable. The maximum Performance-Based Award payable to any one Covered Employee under the Plan for a Performance Cycle is shares of

Stock (subject to adjustment as provided in Section 3(c) hereof) or $[2,000,000] in the case of a Performance-Based Award that is a Cash-Based Award.

SECTION 13. DIVIDEND EQUIVALENT RIGHTS

(a) Dividend Equivalent Rights. A Dividend Equivalent Right may be granted hereunder to any grantee as a component of an award of Restricted Stock Units, Restricted Stock Award or Performance Share Award or as a freestanding award. The terms and conditions of Dividend Equivalent Rights shall be specified in the Award Certificate. Dividend equivalents credited to the holder of a Dividend Equivalent Right may be paid currently or may be deemed to be reinvested in additional shares of Stock, which may thereafter accrue additional equivalents. Any such reinvestment shall be at Fair Market Value on the date of reinvestment or such other price as may then apply under a dividend reinvestment plan sponsored by the Company, if any. Dividend Equivalent Rights may be settled in cash or shares of Stock or a combination thereof, in a single installment or installments. A Dividend Equivalent Right granted as a component of an award of Restricted Stock Units or Restricted Stock Award with performance vesting or Performance Share Award shall provide that such Dividend Equivalent Right shall be settled only upon settlement or payment of, or lapse of restrictions on, such other Award, and that such Dividend Equivalent Right shall expire or be forfeited or annulled under the same conditions as such other Award.

(b) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, a grantee's rights in all Dividend Equivalent Rights or interest equivalents granted as a component of an award of Restricted Stock Units, Restricted Stock Award or Performance Share Award that has not vested shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

SECTION 14. TRANSFERABILITY OF AWARDS

(a) Transferability. Except as provided in Section 14(b) below, during a grantee's lifetime, his or her Awards shall be exercisable only by the grantee, or by the grantee's legal representative or guardian in the event of the grantee's incapacity. No Awards shall be sold, assigned, transferred or otherwise encumbered or disposed of by a grantee other than by will or by the laws of descent and distribution or pursuant to a domestic relations order. No Awards shall be subject, in whole or in part, to attachment, execution, or levy of any kind, and any purported transfer in violation hereof shall be null and void.

(b) Administrator Action. Notwithstanding Section 14(a), the Administrator, in its discretion, may provide either in the Award Certificate regarding a given Award or by subsequent written approval that the grantee (who is an employee or director) may transfer his or her Non-Qualified Options to his or her immediate family members, to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners, provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Award. In no event may an Award be transferred by a grantee for value.

(c) Family Member. For purposes of Section 14(b), "family member" shall mean a grantee's child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, any person sharing the grantee's household (other than a tenant of the grantee), a trust in which these persons (or the grantee) have more than fifty percent (50%) of the beneficial interest, a foundation in which these persons (or the grantee) control the management of assets, and any other entity in which these persons (or the grantee) own more than fifty percent (50%) of the voting interests.

(d) Designation of Beneficiary. Each grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award or receive any payment under any Award payable on or after the grantee's death. Any such designation shall be on a form provided for that purpose by the Administrator and shall not be effective until received by the Administrator. If no beneficiary has been designated by a deceased grantee, or if the designated beneficiaries have predeceased the grantee, the beneficiary shall be the grantee's estate.

SECTION 15. TAX WITHHOLDING

(a) Payment by Grantee. Each grantee shall, no later than the date as of which the value of an Award or of any Stock or other amounts received thereunder first becomes includable in the gross income of the grantee for Federal income tax purposes, pay to the Company, or make arrangements satisfactory to the Administrator regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld by the Company with respect to such income. The Company and its Subsidiaries shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the grantee. The Company's obligation to deliver evidence of book entry (or stock certificates) to any grantee is subject to and conditioned on tax withholding obligations being satisfied by the grantee.

(b) Payment in Stock. Subject to approval by the Administrator, the Company's minimum required tax withholding obligation may be satisfied, in whole or in part, by the Company withholding from shares of Stock to be issued pursuant to any Award a number of shares with an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the withholding amount due.

SECTION 16. SECTION 409A AWARDS

To the extent that any Award is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A (a "409A Award"), the Award shall be subject to such additional rules and requirements as specified by the Administrator from time to time in order to comply with Section 409A. In this regard, if any amount under a 409A Award is payable upon a "separation from service" (within the meaning of Section 409A) to a grantee who is then considered a "specified employee" (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee's separation from service, or (ii) the grantee's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax

imposed pursuant to Section 409A. Further, the settlement of any such Award may not be accelerated except to the extent permitted by Section 409A.

SECTION 17. TRANSFER, LEAVE OF ABSENCE, ETC.

For purposes of the Plan, the following events shall not be deemed a termination of employment:

(a) a transfer to the employment of the Company from a Subsidiary or from the Company to a Subsidiary, or from one Subsidiary to another; or

(b) an approved leave of absence for military service or sickness, or for any other purpose approved by the Company, if the employee's right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise so provides in writing.

SECTION 18. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Administrator may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law or for any other lawful purpose, but no such action shall adversely affect rights under any outstanding Award without the holder's consent. Except as provided in Section 3(c) or 3(d), without prior stockholder approval, in no event may the Administrator exercise its discretion to reduce the exercise price of outstanding Stock Options or Stock Appreciation Rights or effect repricing through cancellation and re-grants or cancellation of Stock Options or Stock Appreciation Rights in exchange for cash. To the extent required under the rules of any securities exchange or market system on which the Stock is listed, to the extent determined by the Administrator to be required by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code, or to ensure that compensation earned under Awards qualifies as performance-based compensation under Section 162(m) of the Code, Plan amendments shall be subject to approval by the Company stockholders entitled to vote at a meeting of stockholders. Nothing in this Section 18 shall limit the Administrator's authority to take any action permitted pursuant to Section 3(c) or 3(d).

SECTION 19. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a grantee, a grantee shall have no rights greater than those of a general creditor of the Company unless the Administrator shall otherwise expressly determine in connection with any Award or Awards. In its sole discretion, the Administrator may authorize the creation of trusts or other arrangements to meet the Company's obligations to deliver Stock or make payments with respect to Awards hereunder, provided that the existence of such trusts or other arrangements is consistent with the foregoing sentence.

SECTION 20. GENERAL PROVISIONS

(a) No Distribution. The Administrator may require each person acquiring Stock pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the shares without a view to distribution thereof.

(b) Delivery of Stock Certificates. Stock certificates to grantees under this Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the grantee, at the grantee's last known address on file with the Company. Uncertificated Stock shall be deemed delivered for all purposes when the Company or a Stock transfer agent of the Company shall have given to the grantee by electronic mail (with proof of receipt) or by United States mail, addressed to the grantee, at the grantee's last known address on file with the Company, notice of issuance and recorded the issuance in its records (which may include electronic "book entry" records). Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates evidencing shares of Stock pursuant to the exercise of any Award, unless and until the Administrator has determined, with advice of counsel (to the extent the Administrator deems such advice necessary or advisable), that the issuance and delivery of such certificates is in compliance with all applicable laws, regulations of governmental authorities and, if applicable, the requirements of any exchange on which the shares of Stock are listed, quoted or traded. All Stock certificates delivered pursuant to the Plan shall be subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with federal, state or foreign jurisdiction, securities or other laws, rules and quotation system on which the Stock is listed, quoted or traded. The Administrator may place legends on any Stock certificate to reference restrictions applicable to the Stock. In addition to the terms and conditions provided herein, the Administrator may require that an individual make such reasonable covenants, agreements, and representations as the Administrator, in its discretion, deems necessary or advisable in order to comply with any such laws, regulations, or requirements. The Administrator shall have the right to require any individual to comply with any timing or other restrictions with respect to the settlement or exercise of any Award, including a window-period limitation, as may be imposed in the discretion of the Administrator.

(c) Stockholder Rights. Until Stock is deemed delivered in accordance with Section 20(b), no right to vote or receive dividends or any other rights of a stockholder will exist with respect to shares of Stock to be issued in connection with an Award, notwithstanding the exercise of a Stock Option or any other action by the grantee with respect to an Award.

(d) Other Compensation Arrangements; No Employment Rights. Nothing contained in this Plan shall prevent the Board from adopting other or additional compensation arrangements, including trusts, and such arrangements may be either generally applicable or applicable only in specific cases. The adoption of this Plan and the grant of Awards do not confer upon any employee any right to continued employment with the Company or any Subsidiary.

(e) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to the Company's insider trading policies and procedures, as in effect from time to time.

(f) Clawback Policy. Awards under the Plan shall be subject to the Company's clawback policy, as in effect from time to time.

SECTION 21. EFFECTIVE DATE OF PLAN

This Plan shall become effective immediately prior to the Company's Initial Public Offering, following stockholder approval of the Plan in accordance with applicable state law, the Company's bylaws and articles of incorporation, and applicable stock exchange rules or pursuant to written consent. No grants of Stock Options and other Awards may be made hereunder after the tenth anniversary of the Effective Date and no grants of Incentive Stock Options may be made hereunder after the tenth anniversary of the date the Plan is approved by the Board.

SECTION 22. GOVERNING LAW

This Plan and all Awards and actions taken thereunder shall be governed by, and construed in accordance with, the laws of the State of Delaware, applied without regard to conflict of law principles.

DATE APPROVED BY BOARD OF DIRECTORS: , 2015

DATE APPROVED BY STOCKHOLDERS: , 2015

INCENTIVE STOCK OPTION AGREEMENT
UNDER THE BLUEPRINT MEDICINES CORPORATION
2015 STOCK OPTION AND INCENTIVE PLAN

Name of Optionee:

No. of Option Shares:

Option Exercise Price per Share: $
[FMV on Grant Date (110% of FMV if a 10% owner)]

Grant Date:

Expiration Date:
[up to 10 years (5 if a 10% owner)]

Pursuant to the Blueprint Medicines Corporation 2015 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Blueprint Medicines Corporation (the "Company") hereby grants to the Optionee named above an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Common Stock, par value $0.001 per share (the "Stock"), of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated so long as the Optionee remains an employee of the Company or a Subsidiary on such dates:

Incremental Number of Option Shares Exercisable*	**Exercisability Date**
(%)	
(%)	
(%)	
(%)	
(%)	

* Max. of $100,000 per yr.

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time

of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; or (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; or (iv) a combination of (i), (ii) and (iii) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the Shares attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) The minimum number of shares with respect to which this Stock Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

(d) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Employment. If the Optionee's employment by the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's employment terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Termination Due to Disability. If the Optionee's employment terminates by reason of the Optionee's disability (as determined by the Administrator), any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of such disability, may thereafter be exercised by the Optionee for a period of 12 months from the date of disability or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of disability shall terminate immediately and be of no further force or effect.

(c) Termination for Cause. If the Optionee's employment terminates for Cause, any portion of this Stock Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean, unless otherwise provided in an employment agreement between the Company and the Optionee, a determination by the Administrator that the Optionee shall be dismissed as a result of (i) the Optionee's dishonest statements or acts with respect to the Company or any affiliate of the Company, or any of the Company's current or prospective customers, suppliers vendors or other third parties with which such entity does business; (ii) the Optionee's commission of (A) a felony or (B) any misdemeanor involving moral turpitude, deceit, dishonesty or fraud; (iii) the Optionee's failure to perform his assigned duties and responsibilities to the reasonable satisfaction of the Company which failure continues, in the reasonable judgment of the Company, after written notice given to the grantee by the Company; (iv) the Optionee's gross negligence, willful misconduct or insubordination with respect to the Company or any affiliate of the Company; or (v) the Optionee's material violation of any provision of any agreement(s) between the Optionee and the Company relating to noncompetition, nondisclosure and/or assignment of inventions.

(d) Other Termination. If the Optionee's employment terminates for any reason other than the Optionee's death, the Optionee's disability, or Cause, and unless otherwise determined by the Administrator, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of three months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock

Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

The Administrator's determination of the reason for termination of the Optionee's employment shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. Status of the Stock Option. This Stock Option is intended to qualify as an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), but the Company does not represent or warrant that this Stock Option qualifies as such. The Optionee should consult with his or her own tax advisors regarding the tax effects of this Stock Option and the requirements necessary to obtain favorable income tax treatment under Section 422 of the Code, including, but not limited to, holding period requirements. To the extent any portion of this Stock Option does not so qualify as an "incentive stock option," such portion shall be deemed to be a non-qualified stock option. If the Optionee intends to dispose or does dispose (whether by sale, gift, transfer or otherwise) of any Option Shares within the one-year period beginning on the date after the transfer of such shares to him or her, or within the two-year period beginning on the day after the grant of this Stock Option, he or she will so notify the Company within 30 days after such disposition.

7. Tax Withholding. The Optionee shall, not later than the date as of which the exercise of this Stock Option becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Company shall have the authority to cause the minimum required tax withholding obligation to be satisfied, in whole or in part, by withholding from shares of Stock to be issued to the Optionee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the minimum withholding amount due.

8. No Obligation to Continue Employment. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Optionee in employment and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Optionee at any time.

9. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

10. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

11. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

BLUEPRINT MEDICINES CORPORATION

By: _____

Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: _____ _____

Optionee's Signature

Optionee's name and address:

NON-QUALIFIED STOCK OPTION AGREEMENT
FOR COMPANY EMPLOYEES
UNDER BLUEPRINT MEDICINES CORPORATION
2015 STOCK OPTION AND INCENTIVE PLAN

Name of Optionee:

No. of Option Shares:

Option Exercise Price per Share: $

[FMV on Grant Date]

Grant Date:

Expiration Date:

[No more than 10 years]

Pursuant to the Blueprint Medicines Corporation 2015 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Blueprint Medicines Corporation (the "Company") hereby grants to the Optionee named above an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Common Stock, par value $0.001 per share (the "Stock") of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan. This Stock Option is not intended to be an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated so long as Optionee remains an employee of the Company or a Subsidiary on such dates:

Incremental Number of Option Shares Exercisable	**Exercisability Date**
(%)	
(%)	
(%)	
(%)	
(%)	

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; (iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; or (v) a combination of (i), (ii), (iii) and (iv) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the Shares attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a

holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) The minimum number of shares with respect to which this Stock Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

(d) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Employment. If the Optionee's employment by the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's employment terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Termination Due to Disability. If the Optionee's employment terminates by reason of the Optionee's disability (as determined by the Administrator), any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of such disability, may thereafter be exercised by the Optionee for a period of 12 months from the date of disability or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of disability shall terminate immediately and be of no further force or effect.

(c) Termination for Cause. If the Optionee's employment terminates for Cause, any portion of this Stock Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean, unless otherwise provided in an employment agreement between the Company and the Optionee, a determination by the Administrator that the Optionee shall be dismissed as a result of (i) the Optionee's dishonest statements or acts with respect to the Company or any affiliate of the Company, or any of the Company's current or prospective customers, suppliers vendors or other third parties with which such entity does business; (ii) the Optionee's commission of (A) a felony or (B) any misdemeanor involving moral turpitude, deceit, dishonesty or fraud; (iii) the Optionee's failure to perform his assigned duties and responsibilities to the reasonable satisfaction of the Company which failure continues, in the reasonable judgment of the Company, after written notice given to the grantee by the Company; (iv) the Optionee's gross negligence, willful misconduct or insubordination with respect to the Company or any affiliate of the Company; or (v) the Optionee's material violation of any provision of any agreement(s) between the Optionee and the Company relating to noncompetition, nondisclosure and/or assignment of inventions.

(d) Other Termination. If the Optionee's employment terminates for any reason other than the Optionee's death, the Optionee's disability or Cause, and unless otherwise determined by the Administrator, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of three months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

The Administrator's determination of the reason for termination of the Optionee's employment shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. Tax Withholding. The Optionee shall, not later than the date as of which the exercise of this Stock Option becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Company shall have the authority to cause the minimum required tax withholding obligation to be satisfied, in whole or in part, by withholding from shares of Stock to be issued to the Optionee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the minimum withholding amount due.

7. No Obligation to Continue Employment. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Optionee in employment and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Optionee at any time.

8. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

9. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or

desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

10. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

BLUEPRINT MEDICINES CORPORATION

By: _____

Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: _____ _____

Optionee's Signature

Optionee's name and address:

NON-QUALIFIED STOCK OPTION AGREEMENT
FOR NON-EMPLOYEE DIRECTORS
UNDER BLUEPRINT MEDICINES CORPORATION
2015 STOCK OPTION AND INCENTIVE PLAN

Name of Optionee:

No. of Option Shares:

Option Exercise Price per Share: $
[FMV on Grant Date]

Grant Date:

Expiration Date:

[No more than 10 years]

Pursuant to the Blueprint Medicines Corporation 2015 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Blueprint Medicines Corporation (the "Company") hereby grants to the Optionee named above, who is a Director of the Company but is not an employee of the Company, an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Common Stock, par value $0.001 per share (the "Stock"), of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan. This Stock Option is not intended to be an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated so long as the Optionee remains in service as a member of the Board on such dates:

Incremental Number of Option Shares Exercisable	Exercisability Date
(%)	
(%)	
(%)	
(%)	
(%)	

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; (iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; or (v) a combination of (i), (ii), (iii) and (iv) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the Shares attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a

holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) The minimum number of shares with respect to which this Stock Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

(d) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination as Director. If the Optionee ceases to be a Director of the Company, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's service as a Director terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Other Termination. If the Optionee ceases to be a Director for any reason other than the Optionee's death, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date the Optionee ceased to be a Director, for a period of twelve months from the date the Optionee ceased to be a Director or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date the Optionee ceases to be a Director shall terminate immediately and be of no further force or effect.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. No Obligation to Continue as a Director. Neither the Plan nor this Stock Option confers upon the Optionee any rights with respect to continuance as a Director.

7. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

8. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

9. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

BLUEPRINT MEDICINES CORPORATION

By: _____

Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: _____ _____

Optionee's Signature

Optionee's name and address:

RESTRICTED STOCK AWARD AGREEMENT
UNDER THE BLUEPRINT MEDICINES CORPORATION
2015 STOCK OPTION AND INCENTIVE PLAN

Name of Grantee:

No. of Shares:

Grant Date:

Pursuant to the Blueprint Medicines Corporation 2015 Stock Option and Incentive Plan (the "Plan") as amended through the date hereof, Blueprint Medicines Corporation (the "Company") hereby grants a Restricted Stock Award (an "Award") to the Grantee named above. Upon acceptance of this Award, the Grantee shall receive the number of shares of Common Stock, par value $0.001 per share (the "Stock") of the Company specified above, subject to the restrictions and conditions set forth herein and in the Plan. The Company acknowledges the receipt from the Grantee of consideration with respect to the par value of the Stock in the form of cash, past or future services rendered to the Company by the Grantee or such other form of consideration as is acceptable to the Administrator.

1. Award. The shares of Restricted Stock awarded hereunder shall be issued and held by the Company's transfer agent in book entry form, and the Grantee's name shall be entered as the stockholder of record on the books of the Company. Thereupon, the Grantee shall have all the rights of a stockholder with respect to such shares, including voting and dividend rights, subject, however, to the restrictions and conditions specified in Paragraph 2 below. The Grantee shall (i) sign and deliver to the Company a copy of this Award Agreement and (ii) deliver to the Company a stock power endorsed in blank.

2. Restrictions and Conditions.

(a) Any book entries for the shares of Restricted Stock granted herein shall bear an appropriate legend, as determined by the Administrator in its sole discretion, to the effect that such shares are subject to restrictions as set forth herein and in the Plan.

(b) Shares of Restricted Stock granted herein may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of by the Grantee prior to vesting.

(c) If the Grantee's employment with the Company and its Subsidiaries is voluntarily or involuntarily terminated for any reason (including death) prior to vesting of shares of Restricted Stock granted herein, all shares of Restricted Stock shall immediately and automatically be forfeited and returned to the Company.

3. Vesting of Restricted Stock. The restrictions and conditions in Paragraph 2 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee remains an employee of the Company or a Subsidiary on such Dates. If a series

of Vesting Dates is specified, then the restrictions and conditions in Paragraph 2 shall lapse only with respect to the number of shares of Restricted Stock specified as vested on such date.

Incremental Number of Shares Vested	**Vesting Date**
(%)	
(%)	
(%)	
(%)	
(%)	

Subsequent to such Vesting Date or Dates, the shares of Stock on which all restrictions and conditions have lapsed shall no longer be deemed Restricted Stock. The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 3.

4. Dividends. Dividends on shares of Restricted Stock shall be paid currently to the Grantee.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Award shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Transferability. This Agreement is personal to the Grantee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution.

7. Tax Withholding. The Grantee shall, not later than the date as of which the receipt of this Award becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. Except in the case where an election is made pursuant to Paragraph 8 below, the Company shall have the authority to cause the required minimum tax withholding obligation to be satisfied, in whole or in part, by withholding from shares of Stock to be issued or released by the transfer agent a number of shares of Stock with an aggregate Fair Market Value that would satisfy the minimum withholding amount due.

8. Election Under Section 83(b). The Grantee and the Company hereby agree that the Grantee may, within 30 days following the Grant Date of this Award, file with the Internal Revenue Service and the Company an election under Section 83(b) of the Internal Revenue Code. In the event the Grantee makes such an election, he or she agrees to provide a copy of the election to the Company. The Grantee acknowledges that he or she is responsible for obtaining the advice of his or her tax advisors with regard to the Section 83(b) election and that he or she is relying solely on such advisors and not on any statements or representations of the Company or any of its agents with regard to such election.

9. No Obligation to Continue Employment. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Grantee in employment and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Grantee at any time.

10. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

11. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

12. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

BLUEPRINT MEDICINES CORPORATION

By: _____

Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: _____ _____

Grantee's Signature

Grantee's name and address:

RESTRICTED STOCK UNIT AWARD AGREEMENT
FOR COMPANY EMPLOYEES
UNDER BLUEPRINT MEDICINES CORPORATION
2015 STOCK OPTION AND INCENTIVE PLAN

Name of Grantee:

No. of Restricted Stock Units:

Grant Date:

Pursuant to the Blueprint Medicines Corporation 2015 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Blueprint Medicines Corporation (the "Company") hereby grants an award of the number of Restricted Stock Units listed above (an "Award") to the Grantee named above.

Each Restricted Stock Unit shall relate to one share of Common Stock, par value $0.001 per share (the "Stock") of the Company.

1. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.

2. Vesting of Restricted Stock Units. The restrictions and conditions of Paragraph 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee remains an employee of the Company or a Subsidiary on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.

Incremental Number of Restricted Stock Units Vested	**Vesting Date**
(%)	
(%)	
(%)	
(%)	
(%)	

The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.

3. Termination of Employment. If the Grantee's employment with the Company and its Subsidiaries terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and neither the Grantee nor any of his or her successors, heirs, assigns, or personal

representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units.

4. Issuance of Shares of Stock. As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Tax Withholding. The Grantee shall, not later than the date as of which the receipt of this Award becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Company shall have the authority to cause the required minimum tax withholding obligation to be satisfied, in whole or in part, by withholding from shares of Stock to be issued to the Grantee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the withholding amount due.

7. Section 409A of the Code. This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as "short-term deferrals" as described in Section 409A of the Code.

8. No Obligation to Continue Employment. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Grantee in employment and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Grantee at any time.

9. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

10. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv)

authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

11. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

BLUEPRINT MEDICINES CORPORATION

By: _____

Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: _____

_____
Grantee's Signature

Grantee's name and address:

RESTRICTED STOCK UNIT AWARD AGREEMENT
FOR NON-EMPLOYEE DIRECTORS
UNDER BLUEPRINT MEDICINES CORPORATION
2015 STOCK OPTION AND INCENTIVE PLAN

Name of Grantee:

No. of Restricted Stock Units:

Grant Date:

Pursuant to the Blueprint Medicines Corporation 2015 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Blueprint Medicines Corporation (the "Company") hereby grants an award of the number of Restricted Stock Units listed above (an "Award") to the Grantee named above. Each Restricted Stock Unit shall relate to one share of Common Stock, par value $0.001 per share (the "Stock") of the Company.

1. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.

2. Vesting of Restricted Stock Units. The restrictions and conditions of Paragraph 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee remains in service as a member of the Board on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.

Incremental Number of Restricted Stock Units Vested	**Vesting Date**
(%)	
(%)	
(%)	
(%)	
(%)	

The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.

3. Termination of Service. If the Grantee's service with the Company and its Subsidiaries terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and

neither the Grantee nor any of his or her successors, heirs, assigns, or personal representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units.

4. Issuance of Shares of Stock. As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Section 409A of the Code. This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as "short-term deferrals" as described in Section 409A of the Code.

7. No Obligation to Continue as a Director. Neither the Plan nor this Award confers upon the Grantee any rights with respect to continuance as a Director.

8. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

9. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

10. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

BLUEPRINT MEDICINES CORPORATION

By: _____

Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: _____

_____

Grantee's Signature

Grantee's name and address:

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "**Lease**") is made this 24 day of June, 2011, between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Tenant**").

BASIC LEASE PROVISIONS

Address:	215 First Street, Cambridge, MA 02142
Premises:	That portion of the Building (as defined below), known as Suite 340/350, containing approximately 15,392 rentable square feet, as determined by Landlord, as shown on **Exhibit A**.
Shared Science Facility:	That portion of the Building depicted as the "Shared Science Facility" on **Exhibit B** attached hereto, subject to adjustment and relocation by Landlord from time to time.
Shared Conference Facility:	That portion of the Building depicted as the "Shared Conference Facility" on **Exhibit C** attached hereto, subject to adjustment and relocation by Landlord from time to time.
Project:	The real property on which the Building is located, together with all improvements thereon and appurtenances thereto as described on **Exhibit D**.
Building:	That building located on the Project and commonly known and numbered as 215 First Street, Cambridge, Massachusetts.
Base Rent:	$59,644.00 per month, subject to adjustments as set forth in Section 3 below
Rent Adjustment Percentage:	3.5%
Rentable Area of Premises:	Approximately 15,392 rentable square feet.
Rentable Area of Project:	Approximately 366,719 rentable square feet.
Tenant's Share:	4.20%.
Tenant's Percentage Share (Science Facility):	18.09%
Security Deposit:	$119,288.00
Target Commencement Date:	October 14, 2011

Term:	Beginning on the Commencement Date and ending four (4) years from the first day of the first full month commencing on or after the Commencement Date.
Permitted Use:	Research and development laboratory, related office and other related uses consistent with the character of the Project and otherwise in compliance with the provisions of Section 6 hereof.

Address for Rent Payment:
P.O. Box 975383
Dallas, TX 75397-5383

Landlord's Notice Address:
385 East Colorado Boulevard,
Suite 299
Pasadena, CA91101
Attention: Corporate Secretary
Facsimile: 626-578-0770

Tenant's Notice Address:
215 First Street, Suite 340
Cambridge, MA 02142
Attention: Lease Administrator

1. **Lease of Premises; Right to Use Common Areas; License to Shared Areas**.

(a) **Lease of Premises; Common Areas.** Upon and subject to all of the terms and conditions hereof, Landlord hereby leases the Premises to Tenant and Tenant hereby leases the Premises from Landlord. The portions of the Project that are for the non-exclusive use of tenants of the Project (including but not limited to the restrooms, elevators, stairways, lobbies, corridors, walkways and Building entrances) are collectively referred to herein as the "**Common Areas**." Tenant shall have the non-exclusive right to use the Common Areas of the Project, excluding the Shared Science Facility and Shared Conference Facility to which Tenant's rights are as set forth in Section 1(b) below. Landlord reserves the right to modify, reconfigure and relocate the Common Areas, provided that such modifications, reconfigurations or relocations do not materially adversely affect Tenant's use of or access to the Premises for the Permitted Use. Notwithstanding the foregoing, no interruption in Building Systems, services or Utilities, from any cause whatsoever, in connection with any work to effect any such modification, reconfiguration or relocation shall result in eviction or constructive eviction of Tenant, termination of this Lease or the abatement of Rent. Landlord reserves the right to change the form of ownership of the Project or any part thereof.

(b) **Shared Science Facility; Shared Conference Facility.** Concurrently with the execution and delivery of this Lease by Tenant, Tenant shall execute and deliver to Landlord a license agreement in the form attached as Exhibit E attached hereto (the "**License Agreement**"). Tenant shall have the nonexclusive right to use the Shared Science Facility and Shared Conference Facility pursuant to the terms and conditions of the License Agreement. Tenant shall have no right to use or access the Shared Science Facility or Shared Conference Facility, except as provided in the License Agreement.

2. **Delivery; Acceptance of Premises; Commencement Date**. Landlord shall use reasonable efforts to deliver the Premises to Tenant on or before the Target Commencement Date, with the Tenant Improvements under the Work Letter attached hereto as **Exhibit F** (the "**Work Letter**") Substantially Completed

("**Delivery**" or "**Deliver**"). If Landlord fails to so Deliver the Premises on or before the Target Commencement Date, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease shall not be void or voidable

except as provided herein. If Landlord does not Deliver the Premises within 60 days of the Target Commencement Date for any reason other than delays due to Force Majeure or Tenant Delays, this Lease may be terminated by Landlord or Tenant by written notice to the other (except that Landlord shall have no right to terminate this Lease other than in the event of Force Majeure or Tenant Delays), and if so terminated by either: (a) any Rent paid prior to the date of such termination (except any Rent paid for any time period that Tenant occupied the Premises and conducted its business therein) the Security Deposit, or any balance thereof (i.e., after deducting therefrom all amounts to which Landlord is entitled under the provisions of this Lease), shall be returned to Tenant, and (b) neither Landlord nor Tenant shall have any further rights, duties or obligations under this Lease, except with respect to provisions which expressly survive termination of this Lease. As used herein, the terms "**Tenant Improvements**," "**Tenants' Work**," "**Tenant Delays**" and "**Substantially Completed**" shall have the meanings set forth for such terms in the Work Letter. If neither Landlord nor Tenant elects to void this Lease within 5 business days of the lapse of such 60 day period pursuant to this Section 2, such right to void this Lease shall be waived and this Lease shall remain in full force and effect.

The "**Commencement Date**" shall be the earliest of: (i) the date Landlord Delivers the Premises to Tenant; (ii) the date Landlord could have Delivered the Premises but for Tenant Delays; and (iii) the date Tenant conducts any business in the Premises or any part thereof. The "**Rent Commencement Date**" shall be the Commencement Date. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Commencement Date, the Rent Commencement Date and the expiration date of the Term when such are established in the form of the "Acknowledgement of Commencement Date" attached to this Lease as Exhibit G; provided, however, the failure of either party to execute and deliver such acknowledgment shall not affect the rights of either party hereunder. The "**Term**" of this Lease shall be as defined above in the Basic Lease Provision and the Extension Term which Tenant may elect pursuant to Section 35 hereof.

Except as set forth in the Work Letter (i) Tenant shall accept the Premises in their condition as of the Commencement Date, subject to all applicable Legal Requirements (as defined in Section 7 hereof); (ii) Landlord shall have no obligation for any defects in the Premises; and (iii) Tenant's taking possession of the Premises shall be conclusive evidence that Tenant accepts the Premises and that the Premises were in good condition at the time possession was taken. Any occupancy of the Premises by Tenant before the Commencement Date shall be subject to all of the terms and conditions of this Lease, excluding the obligation to pay Base Rent and Operating Expenses.

Tenant agrees and acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Premises or the Project, and/or the suitability of the Premises or the Project for the conduct of Tenant's business, and Tenant waives any implied warranty that the Premises or the Project are suitable for the Permitted Use. This Lease constitutes the complete agreement of Landlord and Tenant with respect to the subject matter hereof and supersedes any and all prior representations, inducements, promises, agreements, understandings and negotiations which are not contained herein.

3. **Base Rent**.

(a) The first month's Base Rent and Security Deposit shall be due and payable on delivery of an executed copy of this Lease to Landlord. Tenant shall pay to Landlord in advance, monthly installments of Base Rent on or before the first day of each calendar month during the Term hereof, in lawful money of the United States of America, at the office or address of Landlord for payment of Rent set forth above. Notwithstanding the foregoing, (i) Base Rent for months 1 through 6 of the Base Term shall be adjusted to $17,437.50 per month for such 6-month period, and (ii) Base Rent for months 7 through 12 of the Base Term shall be adjusted to $34,875.00 per month for such 6-month period; provided that Tenant is not in Default hereunder. Payments of Base Rent for any fractional calendar month shall be prorated. Except as expressly provided in this Lease, Tenant shall have no right at any time to abate, reduce, or set-off any Rent due hereunder. If the Rent Commencement Date is other than the first day of a calendar month, the difference between the first full calendar month's Base Rent paid pursuant to the first sentence of this Section 3(a), and the prorated Base Rent for the fractional month in which the Rent Commencement Date occurs shall be applied by Landlord to the first full calendar month after the Rent Commencement Date. Base Rent shall increase to $63,363.73 per month commencing on the first anniversary of the Commencement Date. Commencing on the second anniversary of the Commencement Date, Base Rent shall be increased on each anniversary of the Commencement Date (each an "**Adjustment Date**") by multiplying the Base Rent payable immediately before such Adjustment Date by the Rent Adjustment Percentage and adding the resulting amount to the Base Rent payable immediately before such Adjustment Date. Base Rent, as so adjusted, shall thereafter be due as otherwise provided herein. Base Rent adjustments for any fractional calendar month shall be prorated.

(b) In addition to Base Rent, Tenant agrees to pay to Landlord as additional rent ("**Additional Rent**"): (i) Tenant's Share of Project Operating Expenses and Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses (each as defined in Section 4), and (ii) any and all other amounts Tenant assumes or agrees to pay under the provisions of this Lease, including, without limitation, any and all other sums that may become due by reason of any default of Tenant or failure to comply with the agreements, terms, covenants and conditions of this Lease to be performed by Tenant, after any applicable notice and cure period. Tenant's obligation to pay Base Rent and Additional Rent hereunder are collectively referred to herein as "**Rent**".

4. **Operating Expense Payments**. Landlord shall deliver to Tenant a written estimate of Project Operating Expenses and Science Facility Operating Expenses for each calendar year during the Term (together, the "**Annual Estimate**"), which may be revised by Landlord from time to time during such calendar year. During each month of the Term, on the same date that Base Rent is due, Tenant shall pay Landlord an amount equal to 1/12th of Tenant's Share of Project Operating Expenses and 1/12th of Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, each as shown on the Annual Estimate. Payments for any fractional calendar month shall be prorated. As used herein the term "**Operating Expenses**" shall mean collectively the Project Operating Expenses and the Science Facility Operating Expenses (as such terms are hereinafter defined); and the term "**Tenant's Share of Operating Expenses**" shall mean collectively Tenant's Share of Project Operating Expenses and Tenant's Percentage Share (Science Facility) of Science Facility Operating

Expenses. Landlord's current budget for Operating Expenses is attached hereto as **Exhibit L**. Tenant acknowledges and agrees that such budget is Landlord's estimate of Operating Expenses as of the date of this Lease and is subject to change from time to time.

The term "**Project Operating Expenses**" means all costs and expenses of any kind or description whatsoever incurred or accrued each calendar year by Landlord with respect to the Project (including, without duplication, Taxes (as defined below in this Section 4), transportation services (including costs associated with Landlord's participation in the EZ-Ride shuttle or a successor shuttle service), capital repairs and replacements, and those capital improvements the purpose of which is to reduce Project Operating Expenses and/or to comply with Legal Requirements first in effect after the date of this Lease, which capital repairs, replacements and capital improvements are in each case amortized over the lesser of 7 years and the useful life of such capital items, and the costs of Landlord's third party property manager or, if there is no third party property manager, administration rent in the amount of 3.0% of Base Rent (including Base Rent that would have been due if Base Rent were not reduced in the first 6 months after the Commencement Date)), excluding only:

(a) the original construction costs of the Project and renovation prior to the date of the Lease and costs of correcting defects in such original construction or renovation;

(b) capital expenditures for expansion of the Project or capital improvements that are not for the purpose of reducing Project Operating Expenses and/or complying with Legal Requirements first made effective after the date of this Lease;

(c) interest, principal payments of Mortgage (as defined in Section 23) debts of Landlord, financing costs and amortization of funds borrowed by Landlord, whether secured or unsecured and all payments of base rent (but not taxes or operating expenses) under any ground lease or other underlying lease of all or any portion of the Project;

(d) depreciation of the Project (except for those capital improvements, the cost of which are includable in Project Operating Expenses as provided above in this Section 4);

(e) advertising, legal and space planning expenses and leasing commissions and other costs and expenses incurred in procuring and leasing space to tenants for the Project, including any leasing office maintained in the Project, free rent and construction allowances for tenants;

(f) legal and other expenses incurred in the negotiation or enforcement of leases;

(g) completing, fixturing, improving, renovating, painting, redecorating or other work, which Landlord pays for or performs for other tenants within their premises, and costs of correcting defects in such work;

(h) costs of utilities outside normal business hours sold to tenants of the Project;

(i) costs to be reimbursed by other tenants of the Project or Taxes to be paid directly by Tenant or other tenants of the Project, whether or not actually paid;

(j) salaries, wages, benefits and other compensation paid to officers and employees of Landlord who are not assigned in whole or in part to the operation, management, maintenance or repair of the Project or officers and employees who are above the level of property manager unless such officers and employees have responsibility for the operation or management of the Project, among other projects;

(k) general organizational, administrative and overhead costs relating to maintaining Landlord's existence, either as a corporation, partnership, or other entity, including general corporate, legal and accounting expenses;

(l) costs (including attorneys' fees and costs of settlement, judgments and payments in lieu thereof) incurred in connection with disputes with tenants, other occupants, or prospective tenants, and costs and expenses, including legal fees, incurred in connection with negotiations or disputes with employees, consultants, management agents, leasing agents, purchasers or mortgagees of the Building;

(m) costs incurred by Landlord due to the violation by Landlord, its employees, agents or contractors or any tenant of the terms and conditions of any lease of space in the Project or any Legal Requirement (as defined in Section 6);

(n) penalties, fines or interest incurred as a result of Landlord's inability or failure to make payment of Taxes and/or to file any tax or informational returns when due, or from Landlord's failure to make any payment of Taxes required to be made by Landlord hereunder before delinquency;

(o) overhead and profit increment paid to Landlord or to subsidiaries or affiliates of Landlord for goods and/or services in or to the Project to the extent the same exceeds the costs of such goods and/or services "rendered by unaffiliated third parties on a competitive basis;

(p) costs of Landlord's charitable or political contributions, or of fine art maintained at the Project;

(q) costs in connection with services (including electricity), items or other benefits of a type which are not standard for the Project and which are not available to Tenant without specific charges therefor, but which are provided to another tenant or occupant of the Project, whether or not such other tenant or occupant is specifically charged therefor by Landlord;

(r) costs incurred in the sale or refinancing of the Project;

(s) net income taxes of Landlord or the owner of any interest in the Project, franchise, capital stock, gift, estate or inheritance taxes or any federal, state or local documentary taxes imposed against the Project or any portion thereof or interest therein;

(t) any expenses otherwise includable within Project Operating Expenses to the extent actually reimbursed by persons other than tenants of the Project under leases for space in the Project; and

(u) costs incurred in connection with the clean-up, response action or remediation of Hazardous Materials on the Project or in the Premises that Tenant demonstrates to Landlord's reasonable satisfaction were present on the Project or in the Premises prior to the date of this Lease, except to the extent

Tenant and/or any of the Tenant Parties have exacerbated or contributed to such contamination.

Within 90 days after the end of each calendar year (or such longer period as may be reasonably required), Landlord shall furnish to Tenant a statement (an "**Annual Statement**") showing in reasonable detail: (a) the actual totals of Project Operating Expenses, Science Facility Operating Expenses, Tenant's Share of Project Operating Expenses and Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, in each case for the previous calendar year, and (b) the total of Tenant's payments in respect of Project Operating Expenses and Science Facility Operating Expenses for such year. If Tenant's Share of actual Project Operating Expenses for such year exceeds Tenant's payments of Project Operating Expenses for such year, or if Tenant's Percentage Share (Science Facility) of actual Science Facility Operating Expenses for such year exceeds Tenant's payments of Science Facility Operating Expenses for such year, the excess shall be due and payable by Tenant as Rent within 30 days after delivery of such Annual Statement to Tenant. If Tenant's payments of Project Operating Expenses for such year exceed Tenant's Share of actual Project Operating Expenses for such year, or if Tenant's payments of Science Facility Operating Expenses for such year exceed Tenant's Percentage Share (Science Facility) of actual Science Facility Operating Expenses for such year, Landlord shall pay the excess to Tenant within 30 days after delivery of such Annual Statement, except that after the expiration, or earlier termination of the Term or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord

The Annual Statement shall be final and binding upon Tenant unless Tenant, within 90 days after Tenant's receipt thereof, shall contest any item therein by giving written notice to Landlord, specifying each item contested and the reason therefor. If, during such 90 day period, Tenant reasonably and in good faith questions or contests the accuracy of Landlord's statement of Tenant's Share of Project Operating Expenses or Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, Landlord will provide Tenant with access to Landlord's books and records relating to the operation of the Project and such information as Landlord reasonably determines to be responsive to Tenant's questions (the "**Expense Information**"). If after Tenant's review of such Expense Information, Landlord and Tenant cannot agree upon the amount of Tenant's Share of Project Operating Expenses or Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, then Tenant shall have the right to have an independent public accounting firm selected by Tenant, working pursuant to a fee arrangement other than a contingent fee (at Tenant's sole cost and expense) and approved by Landlord (which approval shall not be unreasonably withheld or delayed), audit and/or review the Expense Information for the year in question (the "**Independent Review**"). The results of any such Independent Review shall be binding on Landlord and Tenant. If the Independent Review shows that the payments actually made by Tenant with respect to Project Operating Expenses for the

calendar year in question exceeded Tenant's Share of Project Operating Expenses for such calendar year, or that the payments actually made by Tenant with respect to Science Facility Operating Expenses for the calendar year in question exceeded Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, Landlord shall at Landlord's option either (i) credit the excess amount to the next succeeding installments of estimated Operating Expenses or (ii) pay the excess to Tenant within 30 days after delivery of such statement, except that after the expiration or earlier termination of this Lease or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord. If the Independent Review shows that Tenant's payments with respect to Project Operating Expenses for such calendar year were less than Tenant's Share of Project Operating Expenses for the calendar year, or that Tenant's payments with respect to Science Facility Operating Expenses for such calendar year were less than Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, Tenant shall pay the deficiency to Landlord within 30 days after delivery of such statement. If the Independent Review shows that Tenant has overpaid with respect to Project Operating Expenses and Science Facility Operating Expenses by more than 5% then Landlord shall reimburse Tenant for all costs incurred by Tenant for the Independent Review.

Operating Expenses for the calendar years in which Tenant's obligation to share therein begins and ends shall include Operating Expenses for whole calendar months in such calendar years and any partial calendar months shall be prorated. Notwithstanding anything set forth herein to the contrary, if the Project is not at least 95% occupied on average during any year of the Term, for such year those expenses included in Tenant's Share of Project Operating Expenses that vary with the level of occupancy of the Building shall be computed as though the Project had been 95% occupied on average during such year.

"**Tenant's Share**" shall be the percentage set forth in the Basic Lease Provisions as Tenant's Share as reasonably adjusted by Landlord for changes in the physical size of the Premises or the Project occurring thereafter. Landlord may equitably increase Tenant's Share for any item of expense or cost reimbursable by Tenant that relates to a repair, replacement, or service that benefits only the Premises or only a portion of the Project that includes the Premises or that varies with occupancy or use. "**Tenant's Percentage Share (Science Facility)**" means the percentage set forth in the Basic Lease Provisions, which Tenant's Percentage Share (Science Facility) shall be subject to further adjustment for changes in the physical size of the Shared Science Facility or the Premises occurring after the date of this Lease, and may be equitably increased for any item of expense or cost reimbursable that is specific to Tenant or that varies with occupancy or use or to address variations in occupancy or use of the Shared Science Facility among Tenant and other tenants. In the event that Tenant's Share is adjusted based on a remeasurement of the Premises as set forth above, Tenant's Percentage Share (Science Facility) shall be subject to a corresponding adjustment. "**Science Facility Operating Expenses**" means Landlord's determination of all costs and expenses of any kind or description whatsoever incurred or accrued each calendar year by Landlord with respect to the Shared Science Facility at the Project (including, without duplication, water, sewer, electricity, gas and any other utilities serving such facilities, maintenance and repairs (including without limitation maintenance contracts) for such facilities and equipment therein, reasonable reserves consistent with good business practice for future repairs and replacements, capital repairs and replacements, and those capital improvements the purpose of which is to reduce Science Facility Operating Expenses

and/or to comply with Legal Requirements first in effect after the date of this Lease, which capital repairs, replacements and capital improvements are in each case amortized over the lesser of 7 years and the useful life of such capital items, the contractor fees and expenses and/or salaries, wages, benefits and other compensation paid to any personnel as may be assigned in whole or in part to such facilities, and any Taxes assessed by a Governmental Authority (as defined below) with a valuation allocated to the Shared Science Facility in the Project but excluding the same kinds of exclusions enumerating in clauses (a) through (u) above with respect to Project Operating Expenses. For purposes of clarification, the parties agree that those specific expense items actually included in Science Facility Operating Expenses in a year shall not also be included as Project Operating Expenses in the same year.

Landlord shall pay, as part of Operating Expenses, all taxes, levies, fees, assessments and governmental charges of any kind, existing as of the Commencement Date or thereafter enacted (collectively referred to as "**Taxes**"), imposed by any federal, state, regional, municipal, local or other governmental authority or agency, including, without limitation, quasi-public agencies (collectively, "**Governmental Authority**") during the Term, including, without limitation, all Taxes: (i) imposed on or measured by or based, in whole or in part, on rent payable to (or gross receipts received by) Landlord under this Lease and/or from the rental by Landlord of the Project or any portion thereof, or (ii) based on the square footage, assessed value or other measure or evaluation of any kind of the Premises, the Shared Science Facility, or the Project, or (iii) assessed or imposed by or on the operation or maintenance of any portion of the Premises, the Shared Science Facility, or the Project, including parking, or (iv) assessed or imposed by, or at the direction of, or resulting from Legal Requirements, or interpretations thereof, promulgated by, any Governmental Authority, or (v) imposed as a license or other fee, charge, tax or assessment on Landlord's business or occupation of

leasing space in the Project. Landlord may contest by appropriate legal proceedings the amount, validity, or application of any Taxes or liens securing Taxes. Taxes shall not include any net income taxes imposed on Landlord except to the extent such net income taxes are in substitution for any Taxes payable hereunder, nor franchise, conveyance or excise taxes. Project Operating Expenses hereunder shall also include the cost of tax monitoring services provided to Landlord with respect to the Project. Tenant shall pay, prior to delinquency, any and all Taxes levied or assessed against any personal property or trade fixtures placed by Tenant in the Premises, whether levied or assessed against Landlord or Tenant. If any Taxes on Tenant's personal property or trade fixtures are levied against Landlord or Landlord's property, or if the assessed valuation of the Project is increased by a value attributable to improvements in or alterations to the Premises, whether owned by Landlord or Tenant and whether or not affixed to the real property so as to become a part thereof, higher than the base valuation on which Landlord from time-to-time allocates Taxes to all tenants in the Project, Landlord shall have the right, but not the obligation, to pay such Taxes. Landlord's determination of any excess assessed valuation shall be binding and conclusive, absent manifest error. The amount of any such payment by Landlord shall constitute Additional Rent due from Tenant to Landlord immediately upon demand. If Landlord shall receive any abatement or refund of Taxes that does not derive from any vacancy in the Building or rent losses and such abatement or refund is for a time period for which Tenant has made payments during the Term, then out of any balance remaining after deducting Landlord's expenses incurred in obtaining such refund or abatement, Landlord shall, at Landlord's option, either (i) credit the excess amount determined by Landlord to be attributable to the Premises to the next succeeding installments of estimated Taxes or (ii) pay the excess amount determined by Landlord to be

attributable to the Premises to Tenant within 30 days after delivery of the Annual Statement, except that after the expiration or earlier termination of this Lease or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay such excess amount determined by Landlord to be attributable to the Premises to Tenant after deducting all other amounts due Landlord. Nothing contained in this Lease shall obligate Landlord to seek a refund or abatement of Taxes.

5. **Security Deposit**. Tenant shall deposit with Landlord, upon delivery of an executed copy of this Lease to Landlord, a security deposit (the "**Security Deposit**") for the performance of all of Tenant's obligations hereunder in the amount set forth in the Basic Lease Provisions, which Security Deposit shall be in the form of an unconditional and irrevocable letter of credit (the "**Letter of Credit**"): (i) in form and substance reasonably satisfactory to Landlord, (ii) naming Landlord as beneficiary, (iii) expressly allowing Landlord to draw upon it at any time from time to time by delivering to the issuer notice that Landlord is entitled to draw thereunder, (iv) issued by an FDIC-insured financial institution satisfactory to Landlord, and (v) redeemable by presentation of a sight draft (which may be presented by delivery by overnight courier) at the financial institution's offices in the United States. With respect to any Letter of Credit given as a Security Deposit or Additional Security Deposit (as defined below) hereunder, if Tenant does not provide Landlord with a substitute Letter of Credit complying with all of the requirements hereof at least 10 days before the stated expiration date of any then current Letter of Credit, Landlord shall have the right to draw the full amount of the current Letter of Credit and hold the funds drawn in cash without obligation for interest thereon as the Security Deposit and, if applicable, the Additional Security Deposit. The Security Deposit and Additional Security Deposit, if any, shall be held by Landlord as security for the performance of Tenant's obligations under this Lease. The Security Deposit and, if any, Additional Security Deposit do not constitute an advance rental deposit or a measure of Landlord's damages in case of Tenant's default. Upon each occurrence of a Default (as defined in Section 16). Landlord may use all or any part of the Security Deposit and, if any, the Additional Security Deposit to pay delinquent payments due under this Lease, and the cost of any damage, injury, expense or liability caused by such Default, without prejudice to any other remedy provided herein or provided by law. Tenant hereby waives the provisions of any law, now or hereafter in force, which provide that Landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of Rent, to repair damage caused by Tenant or to clean the Premises, it being agreed that Landlord may, in addition, claim those sums reasonably necessary to compensate Landlord for any other loss or damage, foreseeable or unforeseeable, caused by the act or omission of Tenant or any officer, employee, agent or invitee of Tenant. Upon any such use of all or any portion of the Security Deposit and/or Additional Security Deposit, Tenant shall, within 5 days after demand from Landlord, restore the Security Deposit to its original amount. If Tenant shall fully perform every provision of this Lease to be performed by Tenant, the Security Deposit, or any balance thereof (i.e., after deducting therefrom all amounts to which Landlord is entitled under the provisions of this Lease), shall be returned to Tenant (or, at Landlord's option, to the last assignee of Tenant's interest hereunder) within 90 days after the expiration or earlier termination of this Lease.

6. **Use**. The Premises shall be used solely for the Permitted Use set forth in the Basic Lease Provisions, in compliance with all laws, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants and restrictions now or hereafter applicable to the Premises, and the use and occupancy thereof (collectively, "**Legal Requirements**"). Tenant will

use the Premises in a careful, safe and proper manner and will not commit waste, overload the floor or structure of the Premises, subject the Premises to use that would damage the Premises or obstruct or interfere with the rights of Landlord or other tenants or occupants of the Project, including conducting or giving notice of any auction, liquidation, or going out of business sale on the Premises, or using or allowing the Premises to be used for any unlawful purpose.

Landlord shall, (i) as a Project Operating Expense to the extent such Legal Requirement is generally applicable to similar buildings in the area in which the Project is located and first requires alterations or modifications to the Common Areas, Shared Science Facility, Shared Conference Facility or the exterior of the Building after the Commencement Date, (ii) at Landlord's expense to the extent such Legal Requirements first require alterations or modifications to the Common Areas, Shared Science Facility, Shared Conference Facility or the exterior of the Building prior to the Commencement Date, or (iii) at Tenant's expense to the extent such Legal Requirement is applicable solely by reason of Tenant's, as compared to other tenants of the Project, particular use of the Premises or to the extent that work is required as a result of any Alterations (as defined in Section 10) made by or on behalf of Tenant, make such alterations or modifications to the Common Areas, Shared Science Facility, Shared Conference Facility or the exterior of the Building that are required by such Legal Requirements, including without limitation the Americans With Disabilities Act, 42 U.S.C. § 12101, et seq. (together with regulations promulgated pursuant thereto, "**ADA**"). For purposes of clarification, the parties agree that the term "Alterations" does not include Landlord's Work as defined in the Work Letter. Tenant, at its sole expense, shall make any alterations or modifications to the interior of the Premises that are first required after the Commencement Date by Legal Requirements (including without limitation, the ADA) or that are required at any time by reason of Tenant's, as compared to other tenants of the Project, particular use of the Premises or as a result of any Alterations made by or on behalf of Tenant.

7. **Holding Over**. If Tenant remains in possession of the Premises after the expiration or earlier termination of the Term without the express written consent of Landlord, (A) Tenant shall become a tenant at sufferance upon the terms of this Lease except that the monthly rental shall be equal to 150% of the Rent in effect during the last 30 days of the Term, and (B) Tenant shall be responsible for all damages suffered by Landlord resulting from or occasioned by Tenant's holding over, including consequential damages. Acceptance by Landlord of Rent after the expiration of the Term or earlier termination of this Lease shall not result in a renewal or reinstatement of this Lease.

8. **Parking**. Subject to all matters of record, Force Majeure, a casualty or Taking (as defined in Section 15 below) and the exercise by Landlord of its rights hereunder, Landlord shall make available to Tenant at then-current market rates from time to time a license for 15 parking spaces in the surface parking lots at the Project or at the "Brown Lot" at 100 Binney Street, Cambridge, Massachusetts, all of such parking spaces to be on a non-reserved basis. As of the

Commencement Date, the market parking rate for the parking spaces in such surface lots is $220 per parking space per month. Tenant shall have the right but not the obligation to license such 15 parking spaces. Tenant shall notify Landlord prior to the Commencement Date as to how many of the 15 parking spaces that Tenant will license hereunder and Tenant shall give Landlord 30 days' notice if it wishes to license additional spaces, up to 15 spaces in the aggregate hereunder, or reduce the number of spaces is it currently licensing. Landlord shall not be

responsible for enforcing Tenant's parking rights against any third parties, including without limitation other tenants of the Project. In the event that Landlord must alter the location of such parking spaces as a result of future construction, Landlord shall have the right, exercisable by 30 days' prior written notice to Tenant ("**Landlord's Relocation Notice**") given at any time during the Term, to relocate all or a portion of the parking spaces made available to Tenant hereunder to another location within a 7-minute walk of the Building; provided, however, that if the relocated parking set forth in Landlord's Relocation Notice is not within a 4-minute walk of the Building, Tenant may elect not to accept the relocated parking spaces by written notice to Landlord given within 30 days of the date of Landlord's Relocation Notice. If Tenant notifies Landlord within such 30-day period that Tenant elects not to accept such relocated parking spaces, then Tenant's parking rights hereunder shall terminate and be void as of the date set forth in Landlord's Relocation Notice as the effective date for such relocation and Tenant shall as of such effective date no longer have the obligation to pay the parking rates for such parking spaces. If Tenant fails to notify Landlord within such 30-day period that Tenant elects not to accept such relocated parking spaces, then Tenant's rights and obligations under this Section 8 shall apply to the relocated parking spaces as of the effective date set forth in the Landlord's Relocation Notice.

9. **Utilities, Services**.

(a) Landlord shall provide, subject to the terms of this Section 9, water, electricity, heat, air conditioning, light, power, passenger elevator service, telephone (to the central demarcation room only), sewer, and other utilities (including gas and fire sprinklers to the extent the Project is plumbed for such services), and, for the office portion of the Premises only, refuse and trash collection and janitorial services (collectively, "**Utilities**"). Landlord shall pay, as Operating Expenses or subject to Tenant's reimbursement obligation, for all Utilities used on the Premises, all maintenance charges for Utilities, and any storm sewer charges or other similar charges for Utilities imposed by any Governmental Authority or Utility provider, and any taxes, penalties, surcharges or similar charges thereon. Electricity serving the Premises will be separately submetered. Landlord may cause, at Landlord's expense, any Utilities to be separately metered or charged directly to Tenant by the provider. Tenant shall pay directly to the Utility provider, prior to delinquency, any separately metered Utilities and services which may be furnished to Tenant or the Premises during the Term. Tenant shall pay, as part of Operating Expenses, its share of all charges for jointly metered Utilities based upon consumption, as reasonably determined by Landlord. No interruption or failure of Utilities, from any cause whatsoever, shall result in eviction or constructive eviction of Tenant, termination of this Lease or the abatement of Rent. Tenant agrees to limit use of water and sewer with respect to Common Areas to normal restroom use.

(b) Tenant shall provide janitorial services and trash collection for the laboratory portion of the Premises, and Landlord shall provide as an Operating Expense a dumpster and/or compactor at the loading dock for use by Tenant in common with others entitled thereto for the disposal of non-hazardous and non-controlled substances and material.

(c) Tenant may use the freight elevator and loading dock in common with others entitled thereto at no additional charge. The regular hours of operation of the freight elevator and loading dock are 24 hours per day, 7 days per week, subject to downtime for maintenance and repairs.

(d) Landlord's sole obligation for providing standby generators or any other standby power equipment, systems, furnishings or personal property, whether or not affixed to the Building (collectively, the "Equipment") shall be (i) to provide such Equipment as is determined by Landlord in its sole and absolute discretion, and (ii) to contract with a third party (determined by Landlord to be qualified) to maintain the Equipment that is deemed by Landlord (in its reasonable professional discretion) to need periodic maintenance per the manufacturer's standard maintenance guidelines. Landlord shall have no obligation to provide Tenant with operational Equipment, back-up Equipment or back-up utilities or to supervise, oversee or confirm that the third party maintaining the Equipment is maintaining the Equipment as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the Equipment when such Equipment is not operational, including any delays thereto due to the inability to obtain parts or replacements, Landlord shall have no obligation to provide Tenant with alternative or back-up Equipment or alternative sources of utilities. Tenant expressly acknowledges and agrees that Landlord does not guaranty that the Equipment will be operational at all times, will function or perform adequately, or that emergency power will be available to the Premises when needed, and Landlord shall not be liable for any damages resulting from the failure of such Equipment. Tenant hereby releases Landlord from and against any and all claims arising directly or indirectly out of or relating to the Equipment or the existence, use of failure thereof, unless caused solely by the willful misconduct or gross negligence of Landlord. The terms of this Section 9(d) shall survive the expiration or earlier termination of this Lease.

10. **Alterations; Tenant's Property**. Any alterations, additions, or improvements made to the Premises by or on behalf of Tenant, including additional locks or bolts of any kind or nature upon any doors or windows in the Premises, but excluding installation, removal or realignment of furniture systems (other than removal of furniture systems owned or paid for by Landlord) not involving any modifications to the structure or connections (other then by ordinary plugs or jacks) to Building Systems (as defined in Section 11(a) below) ("**Alterations**") shall be subject to Landlord's prior written consent, which may be given or withheld in Landlord's sole discretion if any such Alteration affects the structure or Building Systems, but which shall otherwise not be unreasonably withheld or delayed. If Landlord approves any Alterations, Landlord may impose such conditions on Tenant in connection with the commencement, performance and completion of such Alterations as Landlord may deem appropriate in Landlord's reasonable discretion. Tenant agrees to take such steps as may be required, or as otherwise directed by Landlord, with respect to contractors and subcontractors performing any Alterations to ensure that no labor disruption, strikes, pickets, protests or other similar labor actions occur on or about the Premises in connection with the performance of work on any Alterations. Any request for approval of Alterations shall be in writing, delivered not less than 15 business days in advance of any proposed construction, and accompanied by plans, specifications, bid proposals, work contracts and such other information concerning the nature and cost of the Alterations as may be reasonably requested by Landlord, including the identities and mailing addresses of all persons performing work or supplying materials. Landlord's right to review plans and specifications and to monitor construction shall be solely for its own benefit, and Landlord shall have no duty to ensure that such plans and specifications or construction comply with applicable Legal Requirements. Tenant shall cause, at its sole cost and expense, all Alterations to comply with insurance requirements and with Legal Requirements and shall implement at its sole cost and expense any alteration or modification required by Legal

Requirements as a result of any Alterations. Tenant shall pay to Landlord, as Additional Rent, within 10 days after demand Landlord's out-of-pocket expenses for plan review, coordination, scheduling and supervision in connection with any Alterations. Before Tenant begins any Alteration, Landlord may post on and about the Premises notices of non-responsibility pursuant to applicable law. Tenant shall reimburse Landlord for, and indemnify and hold Landlord harmless from, any expense incurred by Landlord by reason of faulty work done by Tenant or its contractors, delays caused by such work, or inadequate cleanup.

Tenant shall furnish security or make other arrangements satisfactory to Landlord to assure payment for the completion of all Alterations work free and clear of liens, and shall provide (and cause each contractor or subcontractor to provide) certificates of insurance for workers' compensation and other coverage in amounts and from an insurance company satisfactory to Landlord protecting Landlord against liability for personal injury or property damage during construction. Upon completion of any Alterations, Tenant shall deliver to Landlord: (i) sworn statements setting forth the names of all contractors and subcontractors who did the work and final lien waivers from all such contractors and subcontractors; and (ii) "as built" plans for any such Alteration.

Other than (i) the items, if any, listed on **Exhibit H** attached hereto, (ii) any items agreed by Landlord in writing to be included on **Exhibit H** in the future, and (iii) any trade fixtures, machinery, equipment and other personal property not installed by Landlord or its contractor as part of the Tenant improvements (as defined in the Work Letter) which may be removed without material damage to the Premises, which damage shall be repaired (including capping or terminating utility hook-ups behind walls) by Tenant during the Term (collectively, "**Tenant's Property**"), all property of any kind paid installed by Landlord or its contractor as part of the Tenant Improvements, Alterations, real property fixtures, built-in machinery and equipment, built-in casework and cabinets and other similar additions and improvements built into the Premises so as to become an integral part of the Premises, such as fume hoods which penetrate the roof or plenum area, built-in cold rooms, built-in warm rooms, walk-in cold rooms, walk-in warm rooms, deionized water systems, glass washing equipment, autoclaves, chillers, built-in plumbing, electrical and mechanical equipment and systems, and any power generator and transfer switch (collectively, "**Installations**") shall be and shall remain the property of Landlord during the Term and following the expiration or earlier termination of the Term, shall not be removed by Tenant at any time during the Term and shall remain upon and be surrendered with the Premises as a part thereof in accordance with Section 24 following the expiration or earlier termination of this Lease; provided, however, that Landlord shall, at the time its approval of such Installation is requested notify Tenant if it has elected to cause Tenant to remove such Installation upon the expiration or earlier termination of this Lease. If Landlord so elects, Tenant shall remove such Installation upon the expiration or earlier termination of this Lease and restore any damage caused by or occasioned as a result of such removal, including, when removing any of Tenant's Property which was plumbed, wired or otherwise connected to any of the Building's plumbing, electrical or other Building Systems, capping off all such connections behind the walls of the Premises and repairing any holes. During any such restoration period, Tenant shall pay Rent to Landlord as provided herein as if said space were otherwise occupied by Tenant.

11. **Repairs**.

(a) **Landlord's Repairs.** Landlord, as an Operating Expense, shall maintain all of the structural, exterior, parking and other Common Areas of the Project, including HVAC, plumbing, fire sprinklers, elevators and all other building systems serving the Premises and other portions of the Project ("**Building Systems**"), in good repair, reasonable wear and tear and uninsured losses and damages caused by Tenant, or by any of Tenant's agents, servants, employees, invitees and contractors (individually, a "**Tenant Party**" and collectively, "**Tenant Parties**") excluded. Landlord shall repair losses and damages caused by Tenant or any Tenant Party at Tenant's sole cost and expense, subject to the waiver of subrogation contained in the final paragraph of Section 14. Such maintenance and repairs by Landlord under this Section shall include Landlord's making such replacements as Landlord may deem necessary in its sole discretion. Landlord reserves the right to stop building system services when necessary. Landlord shall have no responsibility or liability for failure to supply building system services during any such period of interruption; provided, however, that Landlord shall give Tenant 24 hours advance notice of any planned stoppage of building system services for routine maintenance, repairs, alterations or improvements. Landlord shall not be liable for any failure to make any repairs or to perform any maintenance unless such failure shall persist for an unreasonable time after Tenant's written notice of the need for such repairs or maintenance. Tenant waives its rights under any state or local law to terminate this Lease or to make such repairs at Landlord's expense and agrees that the parties' respective rights with respect to such matters shall be solely as set forth herein. Repairs required as the result of fire, earthquake, flood, vandalism, war, or similar cause of damage or destruction shall be controlled by Section 15.

(b) **Tenant's Repairs.** Subject to Section 11(a) and Section 15 hereof, Tenant, at its expense, shall repair, replace and maintain in good condition, damage covered by Section 15 excepted, all portions of the Premises, including, without limitation, entries, doors, ceilings, interior windows, interior walls, and the interior side of demising walls. Such repair and replacement may include capital expenditures and repairs whose benefit may extend beyond the Term. Should Tenant fail to make any such repair or replacement or fail to maintain the Premises, Landlord shall give Tenant notice of such failure. If Tenant fails to commence cure of such failure within 10 days of Landlord's notice, and thereafter diligently prosecute such cure to completion, Landlord may perform such work and shall be reimbursed by Tenant within 10 days after demand therefor; provided, however, that if such failure by Tenant creates or could create an emergency, Landlord may immediately commence cure of such failure and shall thereafter be entitled to recover the costs of such cure from Tenant. Subject to Section 15, Tenant shall bear the full uninsured cost of any repair or replacement to any part of the Project that results from damage caused by Tenant or any Tenant Party and any repair that benefits only the Premises.

12. **Liens**. Tenant shall discharge, by bond or otherwise, any liens filed against the Premises or against the Project arising out of work performed or claimed to have been performed, materials furnished or claimed to have been or obligations incurred or claimed to have been incurred by Tenant within 10 days after Tenant receives notice of the filing thereof, at Tenant's sole cost.

13. **Indemnification**. Tenant hereby indemnifies and agrees to defend, save and hold Landlord harmless from and against any and all claims for injury or death to persons or damage to property (i) occurring within the Premises and arising directly or indirectly out of use or occupancy of the Premises, unless caused solely by the willful misconduct or negligence of Landlord, (ii) occurring outside of the Premises (including without limitation in the Shared Science Facility or Shared Conference Facility) and arising directly or indirectly out of an act or omission of Tenant, or (iii) arising directly or indirectly out of or a breach or default by Tenant in the performance of any of its obligations hereunder or under the License Agreement. Landlord shall not be liable to Tenant for, and Tenant assumes all risk of damage to, personal property (including, without limitation, loss of records kept within the Premises or any part of the Project). Tenant further waives any and all claims for injury to Tenant's business or loss of income relating to any such damage or destruction of personal property (including, without limitation, any loss of records). Landlord shall not be liable for any damages arising from any act, omission or neglect of any tenant in the Project or of any other third party.

14. **Insurance**. Landlord shall maintain all risk property and, if applicable, sprinkler damage insurance covering the full replacement cost of the Building with deductibles not in excess of commercially reasonable deductibles, as reasonably determined by Landlord. Landlord may, but is not obligated to,

maintain such other insurance and additional coverages as it may deem necessary, including, but not limited to, commercial general liability insurance. All such insurance shall be included as part of the Project Operating Expenses. The Project may be included in a blanket policy (in which case the cost of such insurance allocable to the Project will be determined by Landlord based upon the insurer's cost calculations).

Tenant, at its sole cost and expense, shall maintain during the Term: all risk property insurance with business interruption and extra expense coverage, covering the full replacement cost of all property and improvements installed or placed in the Premises by Tenant at Tenant's expense; workers' compensation insurance with no less than the minimum limits required by law; employer's liability insurance with such limits as required by law; and commercial general liability insurance, with a minimum limit of not less than $2,000,000 per occurrence for bodily injury and property damage with respect to the Premises, Shared Science Facility and Shared Conference Facility. The commercial general liability insurance policy shall name Landlord, its officers, directors, employees, managers, members, agents, invitees and contractors (individually, a "**Landlord Party**" and collectively, "**Landlord Parties**") and Alexandria Real Estate Equities, Inc., as additional insureds; insure on an occurrence and not a claims-made basis; be issued by insurance companies which have a rating of not less than policyholder rating of A and financial category rating of at least Class X in "Best's Insurance Guide"; shall not be cancelable for nonpayment of premium unless 30 days prior written notice shall have been given to Landlord from the insurer; contain a hostile fire endorsement and a contractual liability endorsement; and provide primary coverage to Landlord (any policy issued to Landlord providing duplicate or similar coverage shall be deemed excess over Tenant's policies). Copies of such policies (if requested by Landlord), or certificates of insurance showing the limits of coverage required hereunder and showing Landlord as an additional insured, along with reasonable evidence of the payment of premiums for the applicable period, shall be delivered to Landlord by Tenant upon commencement of the Term and upon each renewal of said insurance. Tenant's policy may be a "blanket policy" with an aggregate per location endorsement which specifically provides that the amount of insurance shall not be prejudiced by other losses covered

by the policy. Tenant shall, at least 5 days prior to the expiration of such policies, furnish Landlord with renewal certificates.

In each instance where insurance is to name Landlord as an additional insured, Tenant shall upon written request of Landlord also designate and furnish certificates so evidencing Landlord as additional insured to: (i) any lender of Landlord holding a security interest in the Project or any portion thereof and any servicer in connection therewith, (ii) the landlord under any lease wherein Landlord is tenant of the real property on which the Project is located, if the interest of Landlord is or shall become that of a tenant under a ground or other underlying lease rather than that of a fee owner, and/or (iii) any management company retained by Landlord to manage the Project.

The property insurance obtained by Landlord and Tenant shall include a waiver of subrogation by the insurers and all rights based upon an assignment from its insured, against Landlord or Tenant, and their respective officers, directors, employees, managers, members, agents, invitees and contractors ("**Related Parties**"), in connection with any loss or damage thereby insured against. Neither party nor its respective Related Parties shall be liable to the other for loss or damage caused by any risk insured against under property insurance required to be maintained hereunder, and each party waives any claims against the other party, and its respective Related Parties, for such loss or damage. The failure of a party to insure its property shall not void this waiver. Landlord and its respective Related Parties shall not be liable for, and Tenant hereby waives all claims against such parties for, business interruption and losses occasioned thereby sustained by Tenant or any person claiming through Tenant resulting from any accident or occurrence in or upon the Premises or the Project from any cause whatsoever. If the foregoing waivers shall contravene any law with respect to exculpatory agreements, the liability of Landlord or Tenant shall be deemed not released but shall be secondary to the other's insurer.

15. **Condemnation and Casualty**. If at any time during the Term the Premises, Common Areas or Project is in whole or in part (i) materially damaged or destroyed by a fire or other casualty, or (ii) taken for any public or quasi-public use under governmental law, ordinance, or regulation, or by right of eminent domain, or by private purchase in lieu thereof (a "**Taking**"), then this Lease shall, at the written election of Landlord delivered to Tenant within sixty (60) days following such casualty or taking, terminate as of the date of such damage, destruction or Taking. If at any time during the Term the Premises or Common Areas are in whole or in part (i) materially damaged or destroyed by a fire or other casualty, or (ii) subject to a Taking, then this Lease shall, at the written election of Tenant delivered to Landlord within sixty (60) days following such casualty or taking, terminate as of the date of such damage, destruction or Taking. Unless either Landlord or Tenant so elects to terminate this Lease, Landlord shall, subject to receipt of sufficient insurance proceeds (with any deductible to be treated as a current Operating Expense), promptly restore the Premises and Common Areas (excluding the improvements installed by Tenant or by Landlord and paid for by Tenant), subject to delays arising from the collection of insurance proceeds, from Force Majeure events or as needed to obtain any license, clearance or other authorization of any kind required to enter into and restore the Premises issued by any Governmental Authority having jurisdiction over the use, storage, handling, treatment, generation, release, disposal, removal or remediation of Hazardous

Materials (as defined in Section 26) in, on or about the Premises or Common Areas (collectively referred to herein as "**Hazardous Materials Clearances**").

If neither Tenant nor Landlord elect to terminate this Lease pursuant to the immediately preceding paragraph, Rent shall be abated from the date all required Hazardous Material Clearances are obtained until the Premises or Common Areas are repaired and restored, in the proportion which the area of the Premises, if any, which is not usable by Tenant bears to the total area of the Premises, unless Landlord provides Tenant with other space during the period of repair that is suitable for the temporary conduct of Tenant's business. Such abatement shall be the sole remedy of Tenant, and except as provided in this Section 15, Tenant waives any right to terminate the Lease by reason of damage or casualty loss, provided that, if Landlord shall fail to restore the Premises or Common Areas within 12 months after the receipt of any Hazardous Materials Clearances determined by Landlord to be required (or if Landlord determines that no Hazardous Materials Clearances are required, within 12 months of the end of the 60-day period referred to in the first and second sentences of the immediately preceding paragraph), Tenant shall have a further right to terminate this Lease by written notice to Landlord delivered within 60 days after the expiration of such 12-month period, provided further, that if Landlord completes such restoration within 30 days after receipt of Tenant's termination notice, such termination notice shall be void and this Lease shall continue in full force and effect.

The provisions of this Lease, including this Section 15, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, or any other portion of the Project, and any statute or regulation which is now or may hereafter be in effect shall have no application to this Lease or any damage or destruction to all or any part of the Premises or any other portion of the Project, the parties hereto expressly agreeing that this Section 15 sets forth their entire understanding and agreement with respect to such matters. Upon any fire or other casualty or Taking, Landlord shall be entitled to receive the entire proceeds of the insurance maintained by Landlord and the entire price or award from any such Taking without, in either case, any payment to Tenant, and Tenant hereby assigns to Landlord Tenant's interest, if any, in such proceeds or award, except that Tenant shall have the right, to the extent that same shall not diminish Landlord's award, to make a separate claim against the condemning authority (but not Landlord) for such

compensation as may be separately awarded or recoverable by Tenant for moving expenses and damage to Tenant's trade fixtures, if a separate award for such items is made to Tenant.

16. **Events of Default**. Each of the following events shall be a default ("**Default**") by Tenant under this Lease:

(a) **Payment Defaults.** Tenant shall fail to pay any installment of Rent or any other payment hereunder when due; provided, however, that Landlord will give Tenant notice and an opportunity to cure any failure to pay Rent within 5 business days of any such notice not more than once in any 12 month period and Tenant agrees that such notice shall be in lieu of and not in addition to, or shall be deemed to be, any notice required by law; provided, further, however, that no such notice or opportunity to cure shall be required for any failure by Tenant to pay the first month's Base Rent and deliver the Security Deposit to Landlord at such time as required pursuant to Section 3(a) above.

(b) **Insurance.** Any insurance required to be maintained by Tenant pursuant to this Lease shall be canceled or terminated or shall expire or shall be reduced or materially changed, or Landlord shall receive a notice of nonrenewal of any such insurance and Tenant shall fail to obtain replacement insurance at least 10 days before the expiration of the current coverage.

(c) **Improper Transfer.** Tenant shall assign, sublease or otherwise transfer or attempt to transfer all or any portion of Tenant's interest in this Lease or the Premises except as may be expressly permitted herein, or Tenant's interest in this Lease shall be attached, executed upon, or otherwise judicially seized and such action is not released within 90 days of the action.

(d) **Liens.** Tenant shall fail to discharge or otherwise obtain the release of any lien upon the Premises in violation of this Lease within 10 days after any such lien is filed against the Premises.

(e) **Insolvency Events.** Tenant or any guarantor or surety of Tenant's obligations hereunder shall: (A) make a general assignment for the benefit of creditors; (B) commence any case, proceeding or other action seeking to have an order for relief entered on its behalf as a debtor or to adjudicate it a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, liquidation, dissolution or composition of it or its debts or seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or of any substantial part of its property (collectively a "**Proceeding for Relief**"); (C) become the subject of any Proceeding for Relief which is not dismissed within 90 days of its filing or entry; or (D) die or suffer a legal disability (if Tenant, guarantor, or surety is an individual) or be dissolved or otherwise fail to maintain its legal existence (if Tenant, guarantor or surety is a corporation, partnership or other entity).

(f) **Estoppel Certificate or Subordination Agreement.** Tenant fails to execute any document required from Tenant under Sections 19 or 23 within 5 business days after a second notice requesting such document.

(g) **Default under License.** Tenant shall be in default or breach of any of its obligations under the License beyond any cure period as may be expressly set forth in the License.

(h) **Other Defaults.** Tenant shall fail to comply with any provision of this Lease other than those specifically referred to in this Section 16, and, except as otherwise expressly provided herein, such failure shall continue for a period of 30 days after written notice thereof from Landlord to Tenant, provided that if the nature of such default is such that it cannot be cured by the payment of money and reasonably requires more than 30 days to cure, then Tenant shall not be deemed to be in Default if Tenant commences such cure within 30 days of the aforesaid notice from Landlord and thereafter diligently prosecutes such cure to completion within 90 days of the aforesaid notice from Landlord. Any notice given under this Section 16(h) shall: (i) specify the alleged default, (ii) demand that Tenant cure such default, (iii) be in lieu of, and not in addition to, or shall be deemed to be, any notice required under any provision of

applicable law, and (iv) not be deemed a forfeiture or a termination of this Lease unless Landlord elects otherwise in such notice.

17. **Landlord's Remedies**.

(a) **Payment By Landlord; Interest.** Upon a Default by Tenant hereunder, Landlord may, without waiving or releasing any obligation of Tenant hereunder, make such payment or perform such act that is the subject of the Default. All reasonable sums so paid or incurred by Landlord, together with interest thereon, from the date such sums were paid or incurred, at the annual rate equal to 12% per annum or the highest rate permitted by law (the "**Default Rate**"), whichever is less, shall be payable to Landlord on demand as Additional Rent. Nothing herein shall be construed to create or impose a duty on Landlord to mitigate any damages resulting from Tenant's Default hereunder.

(b) **Late Payment Rent.** Late payment by Tenant to Landlord of Rent and other sums due will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be extremely difficult and impracticable to ascertain. Such costs include, but are not limited to, processing and accounting charges and late charges which may be imposed on Landlord under any Mortgage covering the Premises. Therefore, if any installment of Rent due from Tenant is not received by Landlord within 5 days after the date such payment is due, Tenant shall pay to Landlord an additional sum equal to 6% of the overdue Rent as a late charge. The parties agree that this late charge represents a fair and reasonable estimate of the costs Landlord will incur by reason of late payment by Tenant. In addition to the late charge, Rent not paid when due shall bear interest at the Default Rate from the 5th day after the date due until paid.

(c) **Other Remedies.** Upon and during the continuance of a Default, Landlord, at its option, without further notice or demand to Tenant, shall have in addition to all other rights and remedies provided in this Lease, at law or in equity, the option to pursue any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever. No cure in whole or in part of such Default by Tenant after Landlord has taken any action beyond giving Tenant notice of such Default to pursue any remedy provided for herein (including retaining counsel to file an action or otherwise pursue any remedies) shall in any way affect Landlord's right to pursue such remedy or any other remedy provided Landlord herein or under law or in equity, unless Landlord, in its sole discretion, elects to waive such Default.

This Lease and the Term and estate hereby granted are subject to the limitation that whenever a Default shall have happened and be continuing, Landlord shall have the right, at its election, then or thereafter while any such Default shall continue and notwithstanding the fact that Landlord may have some other remedy hereunder or at law or in equity, to give Tenant written notice of Landlord's intention to terminate this Lease on a date specified in such notice, which date shall be not less than 5 days after the giving of such notice, and upon the date so specified, this Lease and the estate hereby granted shall expire and terminate with

the same force and effect as if the date specified in such notice were the date hereinbefore fixed for the expiration of this Lease, and all rights of Tenant hereunder shall expire and terminate, and Tenant shall be liable as hereinafter in this Section 17(c) provided. If any such notice is given,

Landlord shall have, on such date so specified, the right of re-entry and possession of the Premises and the right to remove all persons and property therefrom and to store such property in a warehouse or elsewhere at the risk and expense, and for the account, of Tenant. Should Landlord elect to re-enter as herein provided or should Landlord take possession pursuant to legal proceedings or pursuant to any notice provided for by law, Landlord may from time to time re-let the Premises or any part thereof for such term or terms and at such rental or rentals and upon such terms and conditions as Landlord may deem advisable, with the right to make commercially reasonable alterations in and repairs to the Premises.

(i) In the event of any termination of this Lease as in this Section 17 provided or as required or permitted by law or in equity, Tenant shall forthwith quit and surrender the Premises to Landlord, and Landlord may, without further notice, enter upon, re-enter, possess and repossess the same by summary proceedings, ejectment or otherwise, and again have, repossess and enjoy the same as if this Lease had not been made, and in any such event Tenant and no person claiming through or under Tenant by virtue of any law or an order of any court shall be entitled to possession or to remain in possession of the Premises. Landlord, at its option, notwithstanding any other provision of this Lease, shall be entitled to recover from Tenant, as and for liquidated damages, the sum of;

(A) all Base Rent, Additional Rent and other amounts payable by Tenant hereunder then due or accrued and unpaid: and

(B) the amount equal to the aggregate of all unpaid Base Rent and Additional Rent which would have been payable if this Lease had not been terminated prior to the end of the Term then in effect, discounted to its then present value in accordance with accepted financial practice using a rate of 5% per annum, for loss of the bargain; and

(C) all other damages and expenses (including attorneys' fees and expenses), if any, which Landlord shall have sustained by reason of the breach of any provision of this Lease; less

(D) the net proceeds of any re-letting actually received by Landlord and (ii) the amount of damages which Tenant proves could have been avoided had Landlord taken reasonable steps to mitigate its damages.

(ii) Nothing herein contained shall limit or prejudice the right of Landlord, in any bankruptcy or insolvency proceeding, to prove for and obtain as liquidated damages by reason of such termination an amount equal to the maximum allowed by any bankruptcy or insolvency proceedings, or to prove for and obtain as liquidated damages by reason of such termination, an amount equal to the maximum allowed by any statute or rule of law whether such amount shall be greater or less than the excess referred to above.

(iii) Nothing in this Section 17 shall be deemed to affect the right of either party to indemnifications pursuant to this Lease.

(iv) If Landlord terminates this Lease upon the occurrence of a Default, Tenant will quit and surrender the Premises to Landlord or its agents, and Landlord may, without further notice, enter upon, re-enter and repossess the Premises by summary proceedings, ejectment or otherwise. The words "enter", "re-enter", and "re-entry" are not restricted to their technical legal meanings.

(v) If either party shall be in default in the observance or performance of any provision of this Lease, and an action shall be brought for the enforcement thereof in which it shall be determined that such party was in default, the party in default shall pay to the other all fees, costs and other expenses which may become payable as a result thereof or in connection therewith, including attorneys' fees and expenses.

(vi) If Tenant shall default in the keeping, observance or performance of any covenant, agreement, term, provision or condition herein contained, Landlord, without thereby waiving such default, may perform the same for the account and at the expense of Tenant (a) immediately or at any time thereafter and without notice in the case of emergency or in case such default will result in a violation of any legal or insurance requirements, or in the imposition of any lien against all or any portion of the Premises, and (b) in any other case if such default continues after any applicable cure period provided in Section 16. All reasonable costs and expenses incurred by Landlord in connection with any such performance by it for the account of Tenant and also all reasonable costs and expenses, including attorneys' fees and disbursements incurred by Landlord in any action or proceeding (including any summary dispossess proceeding) brought by Landlord to enforce any obligation of Tenant under this Lease and/or right of Landlord in or to the Premises, shall be paid by Tenant to Landlord within 10 days after demand.

(vii) Independent of the exercise of any other remedy of Landlord hereunder or under applicable law, Landlord may conduct an environmental test of the Premises as generally described in Section 26(c), at Tenant's expense.

(viii) In the event that Tenant is in breach or Default under this Lease, whether or not Landlord exercises its right to terminate or any other remedy, Tenant shall reimburse Landlord upon demand for any costs and expenses that Landlord may incur in connection with any such breach or Default, as provided in this Section 17(c). Such costs shall include legal fees and costs incurred for the negotiation of a settlement, enforcement of rights or otherwise. Tenant shall also indemnify Landlord against and hold Landlord harmless from all costs, expenses, demands and liability, including without limitation, legal fees and costs Landlord shall incur if Landlord shall become or be made a party to any claim or action instituted by Tenant against any third party, or by or against any person holding any interest under or using the Premises by license of or agreement with Tenant.

(d) Except as otherwise provided in this Section 17, no right or remedy herein conferred upon or reserved to Landlord is intended to be exclusive of any other right or remedy, and every right and remedy shall be cumulative and in addition to any other legal or equitable right or remedy given hereunder, or now or hereafter existing. No waiver of any provision of

this Lease shall be deemed to have been made unless expressly so made in writing. Landlord shall be entitled, to the extent permitted by law, to seek injunctive relief in case of the violation, or attempted or threatened violation, of any provision of this Lease, or to seek a decree compelling observance or performance of any provision of this Lease, or to seek any other legal or equitable remedy.

18. **Assignment and Subletting**.

(a) **General Prohibition.** Without Landlord's prior written consent subject to and on the conditions described in this Section 18. Tenant shall not, directly or indirectly, voluntarily or by operation of law, assign this Lease or sublease the Premises or any part thereof or mortgage, pledge, or hypothecate its leasehold interest or grant any concession or license within the Premises, and any attempt to do any of the foregoing shall be void and of no effect. If Tenant is a corporation, partnership or limited liability company, the shares or other ownership interests thereof which are not actively traded upon a stock exchange or in the over-the-counter market, a transfer or series of transfers whereby 49% or more of the issued and outstanding shares or other ownership interests of such corporation are, or voting control is, transferred (but excepting transfers upon deaths of individual owners) from a person or persons or entity or entities which were owners thereof at time of execution of this Lease to persons or entities who were not owners of shares or other ownership interests of the corporation, partnership or limited liability company at time of execution of this Lease, shall be deemed an assignment of this Lease requiring the consent of Landlord as provided in this Section 18. Notwithstanding the foregoing, any public offering of shares or other ownership interest in Tenant or any private equity financing from institutional investors (including venture capital funding and corporate partners), for which Tenant has given Landlord prior written notice (unless prior written notice is prohibited by law or contract, in which case Tenant shall provide Landlord with concurrent notice), shall not be deemed an assignment under this Section 18 requiring Landlord consent. Such written notice shall be treated by Landlord as confidential information subject to Section 37(i) below.

(b) **Permitted Transfers.** If Tenant desires to assign, sublease (in whole or in part), hypothecate or otherwise transfer this Lease or sublet the Premises, other than pursuant to a Permitted Assignment (as defined below), then at least 15 business days, but not more than 45 business days, before the date Tenant desires the assignment or sublease to be effective (the "**Assignment Date**"), Tenant shall give Landlord a notice (the "**Assignment Notice**") containing such information about the proposed assignee or sublessee, including the proposed use of the Premises and any Hazardous Materials proposed to be used, stored handled, treated, generated in or released or disposed of from the Premises, the Assignment Date, any relationship between Tenant and the proposed assignee or sublessee, and all material terms and conditions of the proposed assignment or sublease, including a copy of any proposed assignment or sublease in its final form, and such other information as Landlord may deem reasonably necessary or appropriate to its consideration whether to grant its consent. Landlord may, by giving written notice to Tenant within 15 business days after receipt of the Assignment Notice: (i) grant such consent, (ii) refuse such consent, in its sole and absolute discretion, to any proposed assignment, hypothecation or other transfer other than a subletting, (iii) refuse such consent, in its reasonable discretion, to a proposed subletting (provided that Landlord shall further have the right to review and approve or disapprove the proposed form of sublease prior to the effective date of any such

subletting), or (iv) with respect to any proposed assignment, hypothecation or transfer, or with respect to any proposed subletting for the remainder of the Term of more than 50% of the Premises (taken together with any prior sublettings), terminate this Lease with respect to the space described in the Assignment Notice as of the Assignment Date (an "**Assignment Termination**"). If Landlord delivers notice of its election to exercise an Assignment Termination, Tenant shall have the right to withdraw such Assignment Notice by written notice to Landlord of such election within 5 business days after Landlord's notice electing to exercise the Assignment Termination. If Tenant withdraws such Assignment Notice, this Lease shall continue in full force and effect. If Tenant does not withdraw such Assignment Notice, this Lease, and the term and estate herein granted, shall terminate as of the Assignment Date with respect to the space described in such Assignment Notice. No failure of Landlord to exercise any such option to terminate this Lease, or to deliver a timely notice in response to the Assignment Notice, shall be deemed to be Landlord's consent to the proposed assignment, sublease or other transfer. Tenant shall pay to Landlord a fee equal to One Thousand Five Hundred Dollars ($1,500) in connection with its consideration of any Assignment Notice and/or its preparation or review of any consent documents.

(c) In considering whether or not to consent to any proposed sublease under clause (iii) of Section 18(b) above, Landlord shall be deemed to have acted reasonably if consent is refused for any of the following reasons: (A) the business or financial reputation of the proposed sublessee, or the business or financial reputation of any of the respective principals or officers thereof, is objectionable in Landlord's judgment, (B) the proposed sublessee is engaged in areas of scientific research or other business concerns that are reasonably likely in Landlord's judgment to attract negative publicity about, or protest at, the Building, or its proposed use of the Premises will violate any applicable Legal Requirement, (C) the proposed sublessee is at that time an occupant of the Project (and Landlord has comparable available space in the Project) or negotiating with Landlord or an affiliate thereof for the lease of other space in the Project, (D) the proposed sublessee docs not have a creditworthiness, as of the date of transfer, sufficient to support the financial obligations it would incur under the proposed sublease in Landlord's reasonable judgment, (E) the proposed sublessee is a governmental agency, (F) in Landlord's judgment the use of the Premises by the proposed sublessee would entail any alterations that would lessen the value of the leasehold improvements in the Premises, or would require increased services by Landlord, (G) Landlord has received from any other landlord to the proposed sublessee a negative report concerning such other landlord's experience with the proposed sublessee, (H) Landlord has experienced previous defaults by or is in litigation with the proposed sublessee, (I) the proposed sublease will create a vacancy elsewhere in the Project or at any other property owned in whole or in part by Landlord or any of its affiliates and located in Massachusetts, or (J) the sublease is prohibited by Landlord's lender, if any.

(d) Notwithstanding the foregoing, (i) Landlord's consent to an assignment of this Lease or a subletting of any portion of the Premises to any entity controlling, controlled by or under common control with Tenant shall not be required, provided that Landlord shall have the right to reasonably approve the form of any such sublease or assignment; and (ii) Tenant shall have the right to assign this Lease, upon 10 days prior written notice to Landlord but without obtaining Landlord's prior written consent, to a corporation or other entity which is a successor-in-interest to Tenant, by way of merger, consolidation or corporate reorganization, or by the purchase of all or substantially all of the assets or the ownership interests of Tenant

provided that (i) such merger or consolidation, or such acquisition or assumption, as the case may be, is for a good business purpose and not principally for the purpose of transferring the Lease, and (ii) the net worth (as determined in accordance with generally accepted accounting principles ("**GAAP**")) of the assignee is not less than the net worth (as determined in accordance with GAAP) of Tenant as of the date of Tenant's most current quarterly or annual financial statements, and (iii) such assignee shall agree in writing to assume all of the terms, covenants and conditions of this Lease arising after the effective date of the assignment. The subletting and assignment described in clauses (i) and (ii) of this paragraph are referred to as a "**Permitted Assignment**."

(e) **Additional Conditions.** As a condition to any such assignment or subletting, whether or not Landlord's consent is required, Landlord may require:

(i) that any assignee or subtenant agree, in writing at the time of such assignment or subletting, that if Landlord gives such party notice that Tenant is in Default under this Lease, such party shall thereafter make all payments otherwise due Tenant directly to Landlord, which payments will be received by Landlord without any liability except to credit such payment against those due under the Lease, and any such third party shall agree to attorn to Landlord or its successors and assigns should this Lease be terminated for any reason; provided, however, in no event shall Landlord or its successors or assigns be obligated to accept such attornment; and

(ii) a list of Hazardous Materials, certified by the proposed assignee or sublessee to be true and correct, which the proposed assignee or sublessee intends to use, store, handle, treat, generate in or release or dispose of from the Premises, together with copies of all documents relating to such use, storage, handling, treatment, generation, release or disposal of Hazardous Materials by the proposed assignee or subtenant in the Premises or on the Project, prior to the proposed assignment or subletting, including, without limitation: permits; approvals; reports and correspondence; storage and management plans; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion); and all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks installed in, on or under the Project for the closure of any such tanks. Neither Tenant nor any such proposed assignee or subtenant is required, however, to provide Landlord with any portion(s) of the such documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities.

(f) **No Release of Tenant, Sharing of Excess Rents.** Notwithstanding any assignment or subletting, Tenant and any guarantor or surety of Tenant's obligations under this Lease shall at all times remain fully and primarily responsible and liable for the payment of Rent and for compliance with all of Tenant's other obligations under this Lease. Commencing on the first anniversary of the Commencement Date, if the Rent due and payable by a sublessee or assignee (or a combination of the rental payable under such sublease or assignment plus any bonus or other consideration therefor or incident thereto in any form) exceeds the sum of the

rental payable under this Lease, which shall be prorated for a sublease of less than all of the Premises (excluding however, any Rent payable under this Section) and actual and reasonable brokerage fees, free rent included as an inducement, legal costs and any design or construction fees directly related to and required pursuant to the terms of any such sublease or any reasonable services fees payable by subtenant to Tenant for the costs to Tenant to provide typical office services such as coffee machines, telephones and fax machines) ("**Excess Rent**"), then Tenant shall be bound and obligated to pay Landlord as Additional Rent hereunder 50% of such Excess Rent within 10 days following receipt thereof by Tenant. If Tenant shall sublet the Premises or any part thereof, Tenant hereby immediately and irrevocably assigns to Landlord, as security for Tenant's obligations under this Lease, all rent from any such subletting, and Landlord as assignee and as attorney-in-fact for Tenant, or a receiver for Tenant appointed on Landlord's application, may collect such rent and apply it toward Tenant's obligations under this Lease; except that, until the occurrence of a Default, Tenant shall have the right to collect such rent.

(g) **No Waiver.** The consent by Landlord to an assignment or subletting shall not relieve Tenant or any assignees of this Lease or any sublessees of the Premises from obtaining the consent of Landlord to any further assignment or subletting nor shall it release Tenant or any assignee or sublessee of Tenant from full and primary liability under the Lease. The acceptance of Rent hereunder, or the acceptance of performance of any other term, covenant, or condition thereof, from any other person or entity shall not be deemed to be a waiver of any of the provisions of this Lease or a consent to any subletting, assignment or other transfer of the Premises.

(h) **Prior Conduct of Proposed Transferee.** Notwithstanding any other provision of this Section 18, if (i) the proposed assignee or sublessee of Tenant has been required by any prior landlord, lender or Governmental Authority to take remedial action in connection with Hazardous Materials contaminating a property, where the contamination resulted from such party's action or use of the property in question, (ii) the proposed assignee or sublessee is subject to an enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority), or (iii) because of the existence of a pre-existing environmental condition in the vicinity of or underlying the Project, the risk that Landlord would be targeted as a responsible party in connection with the remediation of such pre-existing environmental condition would be materially increased or exacerbated by the proposed use of Hazardous Materials by such proposed assignee or sublessee, Landlord shall have the absolute right to refuse to consent to any assignment or subletting to any such party.

19. **Estoppel Certificate**. Tenant shall, within 10 business days of written notice from Landlord, execute, acknowledge and deliver an estoppel certificate on any form reasonably requested by a proposed lender or purchaser.

20. **Quiet Enjoyment**. So long as Tenant shall perform all of the covenants and agreements herein required to be performed by Tenant, Tenant shall, subject to the terms of this Lease, at all times during the Term, have peaceful and quiet enjoyment of the Premises against any person claiming by, through or under Landlord.

21. **Prorations**. All prorations required or permitted to be made hereunder shall be made on the basis of a 360-day year and 30-day months.

22. **Rules and Regulations**. Tenant shall, at all times during the Term and any extension thereof, comply with all reasonable rules and regulations at any time or from time to time established by Landlord covering use of the Premises and the Project. The current rules and regulations are attached hereto as **Exhibit I**. If there is any conflict between said rules and regulations and other provisions of this Lease, the terms and provisions of this Lease shall control. Landlord shall not have any liability or obligation for the breach of any rules or regulations by other tenants in the Project and shall not enforce such rules and regulations in a discriminatory manner.

23. **Subordination**. This Lease and Tenant's interest and rights hereunder are and shall be subject and subordinate at all times to the lien of any Mortgage now existing or hereafter created on or against the Project or the Premises, and all amendments, restatements, renewals, modifications, consolidations, refinancing, assignments and extensions thereof, without the necessity of any further instrument or act on the part of Tenant. Tenant agrees, at the election of the Holder of any such Mortgage, to attorn to any such Holder. Tenant agrees within 10 business days after demand to execute, acknowledge and deliver such instruments confirming such subordination and/or attornment as shall be requested by any such Holder. Upon request of Tenant, Landlord shall use commercially reasonable efforts to obtain from any future Holder of a Mortgage on the Project, if any, an agreement that such Holder will recognize and not disturb Tenant's right of possession pursuant to this Lease provided that Tenant is not in Default under this Lease. The term "**Mortgage**" whenever used in this Lease shall be

deemed to include deeds of trust, security assignments, ground leases or other superior leases and any other encumbrances, and any reference to the "**Holder**" of a Mortgage shall be deemed to include the beneficiary under a deed of trust. Landlord represents that the Project is currently not encumbered by a Mortgage as of the date of this Lease.

24. **Surrender**. Upon the expiration of the Term or earlier termination of Tenant's right of possession, Tenant shall surrender the Premises to Landlord in the same condition as received, subject to any Alterations or Installations permitted by Landlord or required to remain in the Premises in accordance with Section 10, free of Hazardous Materials brought upon, kept, used, stored, handled, treated, generated in, or released or disposed of from, the Premises by any person other than Landlord or any Landlord Party (collectively, "**Tenant HazMat Operations**") and released of all Hazardous Materials Clearances, broom clean, ordinary wear and tear and casualty loss and condemnation covered by Section 15 excepted. At least 2 months prior to the surrender of the Premises, Tenant shall deliver to Landlord a narrative description of the actions proposed (or required by any Governmental Authority) to be taken by Tenant in order to surrender the Premises at the expiration or earlier termination of the Term, free from any residual impact from the Tenant HazMat Operations and otherwise released for unrestricted use and occupancy (the "**Surrender Plan**"). Such Surrender Plan shall be accompanied by a listing of (i) all Hazardous Materials licenses and permits held by or on behalf of any Tenant Party with respect to the Premises, and (ii) all Hazardous Materials used, stored, handled, treated, generated, released or disposed of from the Premises, and shall be subject to the review and approval of Landlord's environmental consultant. In connection with the review and approval of the Surrender Plan, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant

such additional non-proprietary information concerning Tenant HazMat Operations as Landlord shall request. On or before such surrender, Tenant shall deliver to Landlord evidence that the approved Surrender Plan shall have been satisfactorily completed and Landlord shall have the right, subject to reimbursement at Tenant's expense as set forth below, to cause Landlord's environmental consultant to inspect the Premises and perform such additional procedures as may be deemed reasonably necessary to confirm that the Premises are, as of the effective date of such surrender or early termination of the Lease, free from any residual impact from Tenant HazMat Operations. Tenant shall reimburse Landlord, as Additional Rent, for the actual out-of pocket expense incurred by Landlord for Landlord's environmental consultant to review and approve the Surrender Plan and to visit the Premises and verify satisfactory completion of the same, which cost shall not exceed $1,500. Landlord shall have the unrestricted right to deliver such Surrender Plan and any report by Landlord's environmental consultant with respect to the surrender of the Premises to third parties.

If Tenant shall fail to prepare or submit a Surrender Plan approved by Landlord, or if Tenant shall fail to complete the approved Surrender Plan, or if such Surrender Plan, whether or not approved by Landlord, shall fail to adequately address any residual effect of Tenant HazMat Operations in, on or about the Premises, Landlord shall have the right to take such actions as Landlord may deem reasonable or appropriate to assure that the Premises and the Project are surrendered free from any residual impact from Tenant HazMat Operations, the cost of which actions shall be reimbursed by Tenant as Additional Rent, without regard to the limitation set forth in the first paragraph of this Section 24.

Tenant shall immediately return to Landlord all keys and/or access cards to parking, the Project, restrooms or all or any portion of the Premises furnished to or otherwise procured by Tenant. If any such access card or key is lost, Tenant shall pay to Landlord, at Landlord's election, either the cost of replacing such lost access card or key or the cost of reprogramming the access security system in which such access card was used or changing the lock or locks opened by such lost key. Any Tenant's Property, Alterations and property not so removed by Tenant as permitted or required herein shall be deemed abandoned and may be stored, removed, and disposed of by Landlord at Tenant's expense, and Tenant waives all claims against Landlord for any damages resulting from Landlord's retention and/or disposition of such property. All obligations of Tenant hereunder not fully performed as of the termination of the Term, including the obligations of Tenant under Section 26 hereof, shall survive the expiration or earlier termination of the Term, including, without limitation, indemnity obligations, payment obligations with respect to Rent and obligations concerning the condition and repair of the Premises.

25. **Waiver of Jury Trial**. TENANT AND LANDLORD WAIVE ANY RIGHT TO TRIAL BY JURY OR TO HAVE A JURY PARTICIPATE IN RESOLVING ANY DISPUTE, WHETHER SOUNDING IN CONTRACT, TORT, OR OTHERWISE, BETWEEN LANDLORD AND TENANT ARISING OUT OF THIS LEASE OR ANY OTHER INSTRUMENT, DOCUMENT, OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HEREWITH OR THE TRANSACTIONS RELATED HERETO.

26. **Environmental Requirements**.

(a) **Prohibition/Compliance/Indemnity.** Tenant shall not cause or permit any Hazardous Materials (as hereinafter defined) to be brought upon, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises, Shared Science Facility or any other part of the Project in violation of applicable Environmental Requirements (as hereinafter defined) by Tenant or any Tenant Party. If Tenant breaches the obligation stated in the preceding sentence, or if the presence of Hazardous Materials in the Premises during the Term or any holding over results in contamination of the Premises, the Project or any adjacent property or if contamination of the Premises, the Project or any adjacent property by Hazardous Materials brought into, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises or Shared Science Facility by anyone other than Landlord or any Landlord Party otherwise occurs during the Term or any holding over, Tenant hereby indemnifies and shall defend and hold Landlord and each of the Landlord Parties harmless from any and all actions (including, without limitation, remedial or enforcement actions of any kind, administrative or judicial proceedings, and orders or judgments arising out of or resulting therefrom), costs, claims, damages (including, without limitation, punitive damages and damages based upon diminution in value of the Premises or the Project, or the loss of, or restriction on, use of the Premises or any portion of the Project), expenses (including, without limitation, attorneys', consultants' and experts' fees, court costs and amounts paid in settlement of any claims or actions), fines, forfeitures or other civil, administrative or criminal penalties, injunctive or other relief (whether or not based upon personal injury, property damage, or contamination of, or adverse effects upon, the environment, water tables or natural resources), liabilities or losses (collectively, "**Environmental Claims**") which arise during or after the Term as a result of such breach by Tenant of its obligations stated in the preceding sentence or as a result of such contamination. This indemnification of Landlord by Tenant includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, treatment, remedial, removal, or restoration work required by any federal, state or local Governmental Authority because of Hazardous Materials present in the air, soil or ground water above, on, or under the Premises. Without limiting the foregoing, if the presence of any Hazardous Materials on the Premises, the Shared Science Facility, the Project or any adjacent property caused or permitted by Tenant or any Tenant Party results in any contamination of the Premises, the Shared Science Facility, the Project or any adjacent property, Tenant shall promptly take all actions at its sole expense and in accordance with applicable Environmental Requirements as are necessary to return the Premises, the Shared Science Facility, the Project or any adjacent property to the condition existing prior to the time of such contamination, provided that Landlord's approval of such action shall first be obtained, which approval shall not unreasonably be withheld so long as such actions would not potentially have any material adverse long-term or short-term effect on the Premises, the Shared Science Facility or the Project. Notwithstanding anything to the contrary contained in this Section 26(a), Tenant shall not be responsible for the clean up or remediation of, and the indemnification and hold harmless obligation set forth in this paragraph

shall not apply to contamination on the Project or in the Premises that Tenant can demonstrate to Landlord's reasonable satisfaction was present on the Project or in the Premises prior to the date of this Lease or in the case of contamination in the Shared Science Facility or Shared Conference Facility was not caused by an act or omission of Tenant, except in any case to the extent Tenant and/or any of the Tenant Parties have exacerbated or contributed to such contamination, and provided that it is understood that Tenant shall have the burden of proof with respect to whether

such contamination was present on the Project or in the Premises prior to the date of this Lease or whether such contamination in the Shared Science Facility or Shared Conference Facility was not caused by an act or omission of Tenant.

(b) **Business.** As a material inducement to Landlord to allow Tenant to use Hazardous Materials in connection with its business, Tenant agrees to deliver to Landlord prior to the Commencement Date a list identifying each type of Hazardous Materials to be brought upon, kept, used, stored, handled, treated, generated on, or released or disposed of from, the Premises and setting forth any and all governmental approvals or permits required in connection with the presence, use, storage, handling, treatment, generation, release or disposal of such Hazardous Materials on or from the Premises ("**Hazardous Materials List**"). Tenant shall deliver to Landlord true and correct copies of the following documents (the "**Haz Mat Documents**") relating to the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials prior to the Commencement Date (or if unavailable at that time, concurrent with the receipt from or submission to a Governmental Authority): permits; approvals; reports and correspondence; storage and management plans; and notices of violations of any Legal Requirements, Tenant hereby represents and warrants to Landlord that (i) Tenant has not been required by any prior landlord or governmental authority to take remedial action in connection with Hazardous Materials contaminating a property, where the contamination resulted from such party's action or use of the property in question; and (ii) Tenant is not subject to an enforcement order issued by any governmental authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials. If Landlord determines that this representation and warranty was not true as of the date of this lease, Landlord shall have the right to terminate this Lease in Landlord's sole and absolute discretion. Tenant shall be permitted, however, to redact any portions(s) of the Haz Mat Documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities.

(c) **Landlord's Tests.** Landlord shall have access to, and a right to perform inspections and tests of, the Premises and the Shared Science Facility to determine Tenant's compliance with Environmental Requirements, its obligations under this Section 26, or the environmental condition of the Premises, the Shared Science Facility or the Project. In connection with such testing, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such non-proprietary information concerning the use of Hazardous Materials in or about the Premises and Shared Science Facility by Tenant or any Tenant Party. Access to the Premises shall be granted to Landlord upon Landlord's prior notice to Tenant and at such times so as to minimize, so far as may be reasonable under the circumstances, any disturbance to Tenant's operations Such inspections and tests shall be conducted at Landlord's expense, unless such inspections or tests reveal that Tenant has not complied with any Environmental Requirement, in which case Tenant shall reimburse Landlord for the reasonable cost of such inspection and tests. Tenant shall, at its sole cost and expense, promptly and satisfactorily remediate any environmental conditions for which Tenant is responsible pursuant to this Section 26 and that are identified by such testing in accordance with all Environmental Requirements. Landlord's receipt of or satisfaction with any environmental assessment in no way waives any rights that Landlord may have against Tenant.

(d) **Tenant's Obligations.** Tenant's obligations under this Section 26 shall survive the expiration or earlier termination of the Lease. During any period of time after the expiration or earlier termination of this Lease required by Tenant or Landlord to complete the removal from the Premises of any Hazardous Materials for which Tenant is responsible under this Lease (including, without limitation, the release and termination of any licenses or permits restricting the use of the Premises and the completion of the approved Surrender Plan), Tenant shall continue to pay the full Rent in accordance with this Lease for any portion of the Premises not relet by Landlord in Landlord's sole discretion, which Rent shall be prorated daily.

(e) **Definitions.** As used herein, the term "**Environmental Requirements**" means all applicable present and future statutes, regulations, ordinances, rules, codes, judgments, orders or other similar enactments of any Governmental Authority regulating or relating to health, safety, or environmental conditions on, under, or about the Premises or the Project, or the environment, including without limitation, the following: the Comprehensive Environmental Response, Compensation and Liability Act; the Resource Conservation and Recovery Act; and all state and local counterparts thereto, and any regulations or policies promulgated or issued thereunder. As used herein, the term "**Hazardous Materials**" means and includes any substance, material, waste, pollutant, or contaminant listed or defined as hazardous or toxic, or regulated by reason of its impact or potential impact on humans, animals and/or the environment under any Environmental Requirements, asbestos and petroleum, including crude oil or any fraction thereof, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). As defined in Environmental Requirements, Tenant is and shall be deemed to be the "operator" of Tenant's "**facility**" and the "**owner**" of all Hazardous Materials brought on the Premises by Tenant or any Tenant Party, and the wastes, byproducts, or residues generated, resulting, or produced therefrom.

(f) **Asbestos.**

(i) **Notification of Asbestos.** Landlord hereby notifies Tenant of the presence of asbestos-containing materials ("**ACMs**") and/or presumed asbestos-containing materials ("**PACMs**") within or about the Premises in the locations identified in **Exhibit J** attached hereto.

(ii) **Tenant Acknowledgement.** Tenant hereby acknowledges receipt of the notification in paragraph (i) of this Section 26 and understand that the purpose of such notification is to make Tenant, and any agents, employees, and contractors of Tenant, aware of the presence of ACMs and/or PACMs within or about the Building in order to avoid or minimize any damage to or disturbance of such ACMs and/or PACMs.

_____ Tenant's Initials

(iii) **Acknowledgement from Contractors/Employees.** Tenant shall give Landlord at least 14 days' prior written notice before conducting, authorizing or permitting any of the activities listed below within or about the Premises, and before soliciting bids from any person to perform such services. Such notice shall identify or describe the proposed scope, location, date and time of such activities and the name, address and telephone number of each person who may be conducting such activities.

Thereafter, Tenant shall grant Landlord reasonable access to the Premises to determine whether any ACMs or PACMs will be disturbed in connection with such activities. Tenant shall not solicit bids from any person for the performance of such activities without Landlord's prior written approval (such approval not to be unreasonably withheld). Upon Landlord's request, Tenant shall deliver to Landlord a copy of a signed acknowledgement from any contractor, agent, or employee of Tenant acknowledging receipt of information describing the presence of ACMs and/or PACMs within or about the Premises in the locations identified in **Exhibit J** prior to the commencement of such activities. Nothing in this Section 26 shall be deemed to expand Tenant's rights under the Lease or otherwise to conduct, authorize or permit any such activities.

(A) Removal of thermal system insulation ("**TSI**") and surfacing ACMs and PACMs (i.e., sprayed-on or troweled-on material, e.g., textured ceiling paint or fireproofing material);

(B) Removal of ACMs or PACMs that are not TSI or surfacing ACMs or PACMs; or

(C) Repair and maintenance of operations that are likely to disturb ACMs or PACMs.

27. **Tenant's Remedies/Limitation of Liability**. Landlord shall not be in default hereunder unless Landlord fails to perform any of its obligations hereunder within 30 days after written notice from Tenant specifying such failure (unless such performance will, due to the nature of the obligation, require a period of time in excess of 30 days, then after such period of time as is reasonably necessary), provided, however, that if the nature of Landlord's obligation arises from an emergency condition and Tenant provides notice to Landlord (which may be telephonic if followed by written notice on the same day describing the emergency condition in reasonable detail, including without limitation the emergency nature of the condition and specifying in all capital letters and boldface type that the condition is an emergency and response is required by Landlord pursuant to the Lease), then Landlord shall respond within a reasonable period after receipt of such notice of the emergency condition. Upon any default by Landlord, Tenant shall give notice by registered or certified mail to any Holder of a Mortgage covering the Premises and to any landlord of any lease of property in or on which the Premises are located and Tenant shall offer such Holder and/or landlord a reasonable opportunity to cure the default, including time to obtain possession of the Project by power of sale or a judicial action if such should prove necessary to effect a cure; provided Landlord shall have furnished to Tenant in writing the names and addresses of all such persons who are to receive such notices. All obligations of Landlord hereunder shall be construed as covenants, not conditions; and, except as may be otherwise expressly provided in this Lease, Tenant may not terminate this Lease for breach of Landlord's obligations hereunder.

28. **Inspection and Access**. Subject to the next sentence, Landlord and its agents, representatives, and contractors may enter the Premises at any reasonable time to inspect the Premises and to make such repairs as may be required or permitted pursuant to this Lease, to perform such environmental tests as may be reasonably required to confirm Tenant's compliance with the terms hereof and for any other business purpose. Landlord and Landlord's

representatives may enter the Premises during business hours on not less than 48 hours advance written notice (except in the case of emergencies in which case no such notice shall be required and such entry may be at any time) for the purpose of effecting any such repairs, inspecting the Premises, showing the Premises to prospective purchasers and, during the last year of the Term, to prospective tenants or for any other business purpose.

29. **Security**. Tenant acknowledges and agrees that security devices and services, if any, while intended to deter crime may not in given instances prevent theft or other criminal acts and that Landlord is not providing any security services with respect to the Premises, Shared Science Facility, Shared Conference Facility or Common Areas. Tenant agrees that Landlord shall not be liable to Tenant for, and Tenant waives any claim against Landlord with respect to, any loss by theft or any other damage suffered or incurred by Tenant in connection with any unauthorized entry into the Premises, Shared Science Facility, Shared Conference Facility or Common Areas or any other breach of security with respect to the Premises, Shared Science Facility, Shared Conference Facility, Common Areas or other portion of the Project. Tenant shall be solely responsible for the personal safety of Tenant's officers, employees, agents, contractors, guests and invitees while any such person is in, on or about the Premises and/or the Project. Tenant shall at Tenant's cost obtain insurance coverage to the extent Tenant desires protection against such criminal acts.

30. **No Broker; Entire Agreement; Amendment**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "Broker) in connection with this transaction and that no Broker brought about this transaction, other than Cushman & Wakefield of Massachusetts and Richards Barry Joyce & Partners, whose commission shall be paid by Landlord pursuant to a separate agreement. Landlord and Tenant each hereby agree to indemnify and hold the other harmless from and against any claims by any Broker, other than the broker, if any named in this Section 30, claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction. This Lease constitutes the entire agreement between Landlord and Tenant pertaining to the lease of the Premises and supersedes all other agreements, whether oral or written, pertaining to the lease of the Premises, and no other agreements with respect thereto shall be effective. Any amendments or modifications of this Lease shall be in writing and signed by both Landlord and Tenant, and any other attempted amendment or modification of this Lease shall be void.

31. **Limitation on Landlord's Liability**. NOTWITHSTANDING ANYTHING SET FORTH HEREIN OR IN ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT TO THE CONTRARY: (A) LANDLORD SHALL NOT BE LIABLE TO TENANT OR ANY OTHER PERSON FOR (AND TENANT AND EACH SUCH OTHER PERSON ASSUME ALL RISK OF) LOSS, DAMAGE OR INJURY, WHETHER ACTUAL OR CONSEQUENTIAL TO: TENANTS PERSONAL PROPERTY OF EVERY KIND AND DESCRIPTION, INCLUDING, WITHOUT LIMITATION TRADE FIXTURES, EQUIPMENT, INVENTORY, SCIENTIFIC RESEARCH, SCIENTIFIC EXPERIMENTS, LABORATORY ANIMALS, PRODUCT, SPECIMENS, SAMPLES, AND/OR SCIENTIFIC, BUSINESS, ACCOUNTING AND OTHER RECORDS OF EVERY KIND AND DESCRIPTION KEPT AT THE PREMISES AND ANY AND ALL INCOME DERIVED OR DERIVABLE THEREFROM; (B) THERE SHALL BE NO PERSONAL RECOURSE TO LANDLORD FOR

ANY ACT OR OCCURRENCE IN, ON OR ABOUT THE PREMISES OR ARISING IN ANY WAY UNDER THIS LEASE OR ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT WITH RESPECT TO THE SUBJECT MATTER HEREOF AND ANY LIABILITY OF LANDLORD HEREUNDER SHALL BE STRICTLY LIMITED SOLELY TO LANDLORD'S INTEREST IN THE PROJECT OR ANY PROCEEDS FROM SALE OR CONDEMNATION THEREOF AND ANY INSURANCE PROCEEDS PAYABLE IN RESPECT OF LANDLORD'S INTEREST IN THE PROJECT OR IN CONNECTION WITH ANY SUCH LOSS; AND (C) IN NO EVENT SHALL ANY PERSONAL LIABILITY BE ASSERTED AGAINST LANDLORD OR ITS OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS IN CONNECTION WITH THIS LEASE NOR SHALL ANY RECOURSE BE HAD TO ANY OTHER PROPERTY OR ASSETS OF LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS.

UNDER NO CIRCUMSTANCES SHALL LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS BE LIABLE FOR INJURY TO TENANTS BUSINESS OR FOR ANY LOSS OF INCOME OR PROFIT THEREFROM.

32. **Severability**. If any clause or provision of this Lease is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this Lease shall not be affected thereby.

33. **Signs; Exterior Appearance**. Tenant shall not: (i) attach anything at any time to any outside wall of the Project, (ii) use any window coverings or sunscreen other than Landlord's standard window coverings, (iii) place any articles on the window sills, (iv) place any items on any exterior balcony, or (v) paint, affix or exhibit any signs or any kind in the Premises which can be viewed from the exterior of the Premises. Interior signs on doors and the directory tablet, in each case in Building standard form, shall be provided by Landlord at Landlord's sole cost and expense.

34. **Intentionally Omitted**

35. **Right to Extend Term**. Tenant shall have the right to extend the Term of the Lease upon the following terms and conditions:

(a) **Extension Right.** Tenant shall have one right (the "**Extension Right**") to extend the term of this Lease for 3 years (the "**Extension Term**") on the same terms and conditions as this Lease (other than Base Rent) by giving Landlord written notice of its election to exercise the Extension Right at least 9 months prior to the expiration of the original Term of the Lease. Promptly after receipt of Tenant's exercise notice, Landlord shall provide Tenant with Landlord's determination of the Market Rate for the Extension Term.

Upon the commencement of the Extension Term, Base Rent shall be payable at the Market Rate (as defined below). Base Rent shall thereafter be adjusted on each annual anniversary of the commencement of such Extension Term by the Rent Adjustment Percentage as provided in Section 3 above. As used herein, "**Market Rate**" shall mean the then market rental rate for combined laboratory and office space in East Cambridge of comparable age, quality, level of finish and proximity to amenities and public transit. The Market Rate shall

initially be determined by Landlord and submitted to Tenant for its consideration. If, on or before the date which is 210 days prior to the expiration of the original Term of this Lease, Tenant has not agreed with Landlord's determination of the Market Rate after negotiating in good faith, Tenant may by written notice to Landlord not later than 180 days prior to the expiration of the original Term of this Lease, elect arbitration as described in Section 35(b) below. If Tenant has not agreed with Landlord's determination of the Market Rate and does not elect such arbitration prior to the date that is 180 days prior to the expiration of the original Term, Tenant shall be deemed to have waived any right to extend.

(b) **Arbitration.** Within 10 days of Tenant's notice to Landlord of its election to arbitrate Market Rate, each party shall deliver to the other a proposal containing the Market Rate that the submitting party believes to be correct ("**Extension Proposal**"). If either party fails to timely submit an Extension Proposal, the other party's submitted proposal shall determine the Base Rent for the Extension Term. If both parties submit Extension Proposals, then Landlord and Tenant shall meet within 7 days after delivery of the last Extension Proposal and make a good faith attempt to mutually appoint a single Arbitrator (and defined below) to determine the Market Rate. If Landlord and Tenant are unable to agree upon a single Arbitrator, then each shall, by written notice delivered to the other within 10 days after the meeting, select an Arbitrator. If either party fails to timely give notice of its selection for an Arbitrator, the other party's submitted proposal shall determine the Base Rent for the Extension Term. The 2 Arbitrators so appointed shall, within 5 business days after their appointment, appoint a third Arbitrator. If the 2 Arbitrators so selected cannot agree on the selection of the third Arbitrator within the time above specified, then either party, on behalf of both parties, may request such appointment of such third Arbitrator by application to any state court of general jurisdiction in the jurisdiction in which the Premises are located, upon 10 days prior written notice to the other party of such intent.

The decision of the Arbitrator(s) shall be made within 30 days after the appointment of a single Arbitrator or the third Arbitrator, as applicable. The decision of the single Arbitrator shall be final and binding upon the parties. The average of the two closest Arbitrators in a three Arbitrator panel shall be final and binding upon the parties. Each party shall pay the fees and expenses of the Arbitrator appointed by or on behalf of such party and the fees and expenses of the third Arbitrator shall be borne equally by both parties. If the Market Rate is not determined by the first day of the Extension Term, then Tenant shall pay Landlord Base Rent in an amount equal to the Base Rent in effect immediately prior to the Extension Term and increased by the Rent Adjustment Percentage until such determination is made. After the determination of the Market Rate, the parties shall make any necessary adjustments to such payments made by Tenant. Landlord and Tenant shall then execute an amendment recognizing the Market Rate for the Extension Term.

An "**Arbitrator**" shall be any person appointed by or on behalf of either party or appointed pursuant to the provisions hereof and: (i) shall be (A) a member of the American Institute of Real Estate Appraisers with not less than 10 years of experience in the appraisal of improved office and high tech or life sciences space in the greater Boston metropolitan area, or (B) a licensed commercial real estate broker with not less than 15 years experience representing landlords and/or tenants in the leasing of improved office and high tech or life sciences space in the greater Boston metropolitan area, (ii) devoting substantially all of their time to professional

appraisal or brokerage work, as applicable, at the time of appointment and (iii) be in all respects impartial and disinterested.

(c) **Rights Personal.** The Extension Right is personal to Tenant (and successors pursuant to a Permitted Assignment) and not assignable without Landlord's consent, which may be granted or withheld in Landlord's sole discretion separate and apart from any consent by Landlord to an assignment of Tenant's interest in the Lease.

(d) **Exceptions.** Notwithstanding anything set forth above to the contrary, the Extension Right shall not be in effect and Tenant may not exercise the Extension Right:

(i) during any period of time that Tenant is in Default under any provision of this Lease; or

(ii) if Tenant has been in Default under any provision of this Lease 3 or more times, whether or not the Defaults are cured, during the 12 month period immediately prior to the date that Tenant intends to exercise the Extension Right, whether or not the Defaults are cured.

(iii) if Tenant (including any successor pursuant to one or more Permitted Assignment(s)) is not in occupancy of at least 75% of the entire Premises demised hereunder both at the time of the exercise of the Extension Right and at the time of the commencement date of the Extension Term.

(e) **No Extensions.** The period of time within which the Extension Right may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Extension Right.

(f) **Termination.** The Extension Right shall terminate and be of no further force or effect even after Tenant's due and timely exercise of the Extension Right, if, after such exercise, but prior to the commencement date of the Extension Term, (i) Tenant fails to timely cure any default by Tenant under this Lease; or (ii) Tenant has Defaulted 3 or more times during the period from the date of the exercise of the Extension Right to the date of the commencement of the Extension Term, whether or not such Defaults are cured.

36. **Right to Expand**.

(a) **Expansion to Laboratory Space on the First Floor and Office Space on the Third Floor of Building.** Subject to rights granted prior to the date hereof to Third Rock Ventures, LLC pursuant to a separate agreement, each time during the Base Term that Landlord intends to accept a written proposal (the "**Pending Deal**") to lease the Available Space (as hereinafter defined) to a third party other than an existing tenant of the Available Space regardless of whether such existing tenant has a right to extend its lease with respect to the Available Space, Landlord shall deliver to Tenant written notice (the "**Pending Deal Notice**") of the existence of such Pending Deal. For purposes of this Section 36(a), "**Available Space**" shall mean those certain portions of the first floor and the third floor of the Project shown on **Exhibit K**. Tenant shall be entitled to exercise its right under this Section 36(a) only with respect to the entire Available Space described in such Pending Deal Notice. Within 7 days after

Tenant's receipt of the Pending Deal Notice, Tenant shall deliver to Landlord written notice (the "**Space Acceptance Notice**") if Tenant elects to lease the Available Space. Tenant' s right to receive the Pending Deal Notice and election to lease or not lease the Available Space pursuant to this Section 36(a) is hereinafter referred to as the "**Right of First Refusal**." If Tenant elects to lease the Available Space described in the Pending Deal Notice by delivering the Space Acceptance Notice within the required 7 day period, Tenant shall be deemed to agree to lease the Available Space on the same general terms and conditions as this Lease except that the terms of this Lease shall be modified to reflect the terms of the Pending Deal. The term of the Lease with respect to the Available Space shall be the term of the Pending Deal, which Tenant acknowledges and agrees may not be co-terminous with the Term of this Lease with respect to the Premises. Notwithstanding anything to the contrary contained herein, in no event shall the Work Letter apply to the Available Space. If Tenant fails to deliver a Space Acceptance Notice to Landlord within the required 7 day period, Tenant shall be deemed to have waived its rights under this Section 36(a) with respect to the Available Space identified in the Pending Deal Notice and the provisions of this Section 36(a) shall no longer apply to the Available Space identified in the Pending Deal Notice.

(b) **Amended Lease.** If: (i) Tenant fails to timely deliver a Space Acceptance Notice, or (ii) after the expiration of a period of 10 days after Landlord's delivery to Tenant of a lease amendment or lease agreement for Tenant's lease of the Available Space, no lease amendment or lease agreement for the Available Space acceptable to both parties each in their sole and absolute discretion, has been executed, Tenant shall be deemed to have waived its right to lease such Available Space.

(c) **Exceptions.** Notwithstanding the above, the Right of First Refusal shall, at Landlord's option, not be in effect and may not be exercised by Tenant:

(i) during any period of time that Tenant is in Default under any provision of the Lease; or

(ii) if Tenant has been in Default under any provision of the Lease 3 or more times, whether or not the Defaults are cured, during the 12 month period prior to the date on which Tenant seeks to exercise the Right of First Refusal.

(d) **Termination.** The Right of First Refusal shall, at Landlord's option, terminate and be of no further force or effect even after Tenant's due and timely exercise of the Right of First Refusal, if, after such exercise, but prior to the commencement date of the lease of such Available Space, (i) Tenant fails to timely cure any default by Tenant under the Lease; or (ii) Tenant has Defaulted 3 or more times during the period from the date of the exercise of the Right of First Refusal to the date of the commencement of the lease of the Available Space, whether or not such Defaults are cured.

(e) **Rights Personal.** The Right of First Refusal is personal to Tenant (and successors pursuant to a Permitted Assignment) and is not assignable without Landlord's consent, which may be granted or withheld in Landlord's sole discretion separate and apart from any consent by Landlord to an assignment of Tenant's interest in the Lease.

(f) **No Extensions.** The period of time within which the Right of First Refusal may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Right of First Refusal.

37. Miscellaneous.

(a) **Notices.** Except as otherwise provided herein, all notices or other communications between the parties shall be in writing and shall be deemed duly given upon delivery or refusal to accept delivery by the addressee thereof if delivered in person, confirmed receipt by facsimile, or upon delivery if delivered by reputable overnight guaranty courier or certified mail return receipt requested, addressed and sent to the parties at their addresses set forth above. Landlord and Tenant may from time to time by written notice to the other designate another address for receipt of future notices.

(b) **Recordation.** Neither this Lease nor a memorandum of lease shall be filed by or on behalf of Tenant in any public record. Landlord may prepare and file, and upon request by Landlord Tenant will execute, a memorandum of lease.

(c) **Interpretation.** The normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Lease or any exhibits or amendments hereto. The captions inserted in this Lease are for convenience only and in no way

define, limit or otherwise describe the scope or intent of this Lease, or any provision hereof, or in any way affect the interpretation of this Lease.

(d) **Not Binding Until Executed.** The submission by Landlord to Tenant of this Lease shall have no binding force or effect, shall not constitute an option for the leasing of the Premises, nor confer any right or impose any obligations upon either party until execution of this Lease by both parties.

(e) **Limitations on Interest.** It is expressly the intent of Landlord and Tenant at all times to comply with applicable law governing the maximum rate or amount of any interest payable on or in connection with this Lease. If applicable law is ever judicially interpreted so as to render usurious any interest called for under this Lease, or contracted for, charged, taken, reserved, or received with respect to this Lease, then it is Landlord's and Tenant's express intent that all excess amounts theretofore collected by Landlord be credited on the applicable obligation (or, if the obligation has been or would thereby be paid in full, refunded to Tenant), and the provisions of this Lease immediately shall be deemed reformed and the amounts thereafter collectible hereunder reduced, without the necessity of the execution of any new document, so as to comply with the applicable law, but so as to permit the recovery of the fullest amount otherwise called for hereunder.

(f) **Choice of Law.** Construction and interpretation of this Lease shall be governed by the internal laws of the state in which the Premises are located, excluding any principles of conflicts of laws.

(g) **Time.** Time is of the essence as to the performance of Tenant's obligations under this Lease.

(h) **Force Majeure.** Except for the payment of Rent, neither Landlord nor Tenant shall be held responsible or liable for delays in the performance of its obligations hereunder when caused by, related to, or arising out of acts of God, strikes, lockouts, or other labor disputes, embargoes, quarantines, weather, national, regional, or local disasters, calamities, or catastrophes, inability to obtain labor or materials (or reasonable substitutes therefor) at reasonable costs or failure of, or inability to obtain, utilities necessary for performance, governmental restrictions, orders, limitations, regulations, or controls, national emergencies, delay in issuance or revocation of permits, enemy or hostile governmental action, terrorism, insurrection, riots, civil disturbance or commotion, fire or other casualty, and other causes or events beyond the reasonable control of the parties (individually or collectively, "**Force Majeure**"), it being understood that Force Majeure shall not include financial difficulties of Landlord or Tenant, if any.

(i) **Financial Information.** Tenant shall furnish Landlord with true and complete copies of (i) Tenant's most recent audited annual financial statements within 90 days of the end of each of Tenant's fiscal years during the Term, (ii) Tenant's most recent unaudited quarterly financial statements within 45 days of the end of each of Tenant's first three fiscal quarters of each of Tenant's fiscal years during the Term, (iii) at Landlord's request from time to time but not more than once in any 12 month period, updated business plans, including cash flow projections and/or pro forma balance sheets and income statements, all of which shall be treated by Landlord as confidential information belonging to Tenant, (iv) corporate brochures and/or profiles prepared by Tenant for prospective investors, and (v) any other financial information or summaries that Tenant typically provides to its lenders or shareholders. So long as Tenant is a "public company" and its financial information is publicly available, then the foregoing delivery requirements of this Section 37(i) shall not apply.

Landlord agrees to hold the financial statements and other financial information provided under this section in confidence using at least the same degree of care that Landlord uses to protect its own confidential information of a similar nature; provided, however, that Landlord may disclose such information to Landlord's auditors, attorneys, consultants, lenders, affiliates, prospective purchasers and investors and other third parties as reasonably required in the ordinary course of Landlord's operations, provided that Landlord shall request that such parties treat the information as confidential. The obligations of confidentiality hereunder shall not apply to information that was in the public domain at the time it was disclosed to Landlord, entered into the public domain subsequent to the time it was disclosed to Landlord through no fault of Landlord, or was disclosed by Tenant to a third party without any confidentiality restrictions. In addition, Landlord may disclose such information without violating this section to the extent that disclosure is reasonably necessary (a) for Landlord to enforce its rights or defend itself under this Lease; (b) for required submissions to any state or federal regulatory body; or (c) for compliance with a valid order of a court or other governmental body having jurisdiction, or any law, statute, or regulation, provided that, other than in an emergency, before disclosing such information, Landlord shall give Tenant 5 business days' prior notice of the same to allow Tenant to obtain a protective order or such other judicial relief.

(j) **OFAC.** Tenant, and all beneficial owners of Tenant, are currently (a) in compliance with, and shall at all times during the Term of this Lease remain in compliance with, the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S. Department of

Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the Term of this Lease be listed on, the Specially Designated Nationals and Blocked Persons List maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

(k) **Incorporation by Reference.** All exhibits and addenda attached hereto are hereby incorporated into this Lease and made a part hereof. If there is any conflict between such exhibits or addenda and the terms of this Lease, such exhibits or addenda shall control, except in the case of conflict between the Rules and Regulations in **Exhibit I**. In the event of any conflict between the Rules and Regulations in **Exhibit I** and the Lease, the Lease shall control.

(l) **No Accord and Satisfaction.** No payment by Tenant or receipt by Landlord of a lesser amount than the monthly installment of Base Rent or any Additional Rent will be other than on account of the earliest stipulated Base Rent and Additional Rent, nor will any endorsement or statement on any check or letter accompanying a check for payment of any Base Rent or Additional Rent be an accord and satisfaction. Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or to pursue any other remedy provided in this Lease.

(m) **Hazardous Activities.** Notwithstanding any other provision of this Lease, Landlord, for itself and its employees, agents and contractors, reserves the right to refuse to perform any repairs or services in any portion of the Premises which, pursuant to Tenant's routine safety guidelines, practices or custom or prudent industry practices, require any form of protective clothing or equipment other than safety glasses. In any such case, Tenant shall contract with parties who are acceptable to Landlord, in Landlord's reasonable discretion, for all such repairs and services, and Landlord shall, to the extent required, equitably adjust Tenant's Share of Operating Expenses in respect of such repairs or services to reflect that Landlord is not providing such repairs or services to Tenant.

[Signatures on next page]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the day and year first above written.

TENANT:

BLUEPRINT MEDICINES CORPORATION, a Delaware corporation

By: /s/ Chris Varma
Its: CEO

LANDLORD:

ARE-MA REGION NO. 38, LLC, a Delaware limited liability corporation

By: Alexandria Real Estate Equities, L.P., a Delaware limited partnership, member

By: ARE-QRS Corp., a Maryland corporation, general partner

By: /s/ Eric S. Johnson
Its: Vice President Real Estate Legal Affairs

EXHIBIT A TO LEASE

DESCRIPTION OR PLAN OF PREMISES

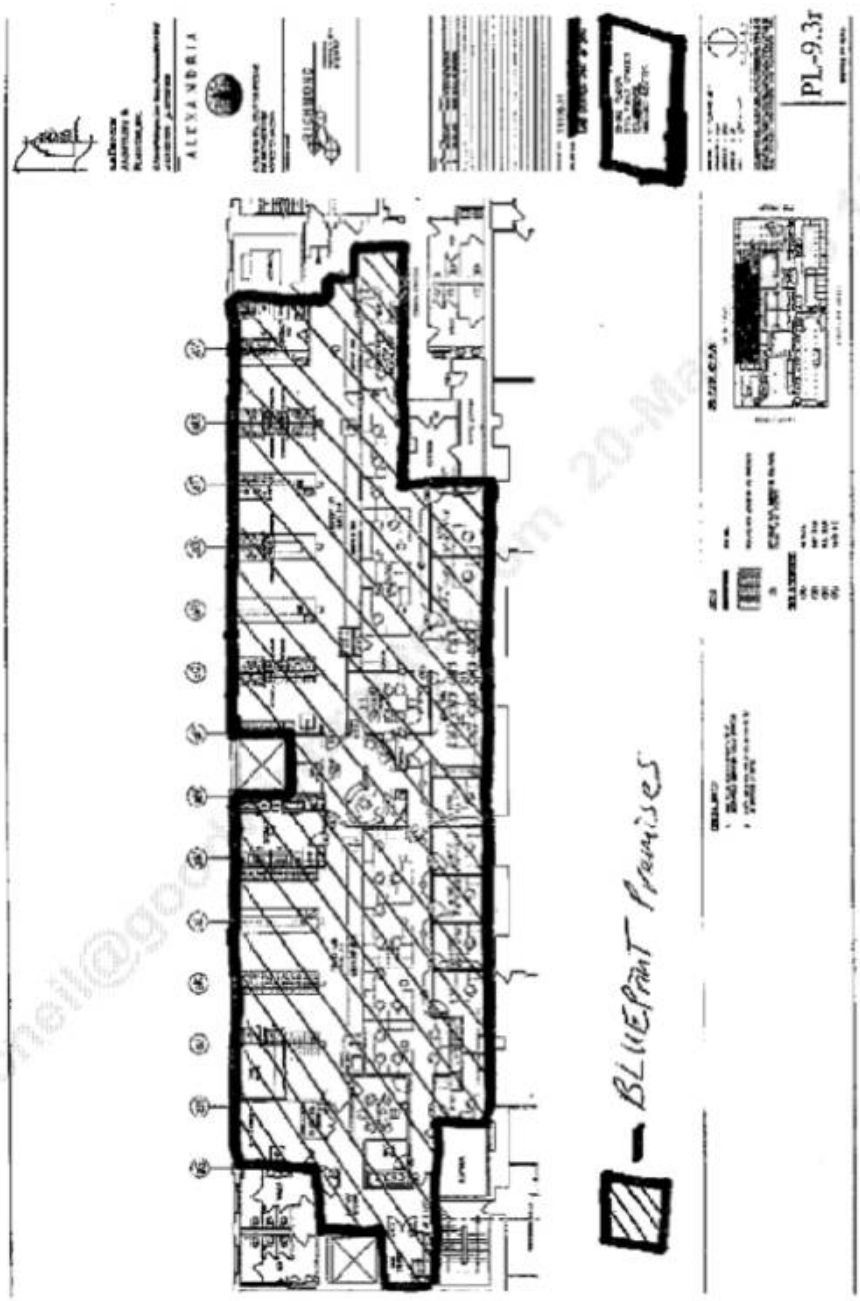

EXHIBIT B TO LEASE

DESCRIPTION OR PLAN OF SHARED SCIENCE FACILITY

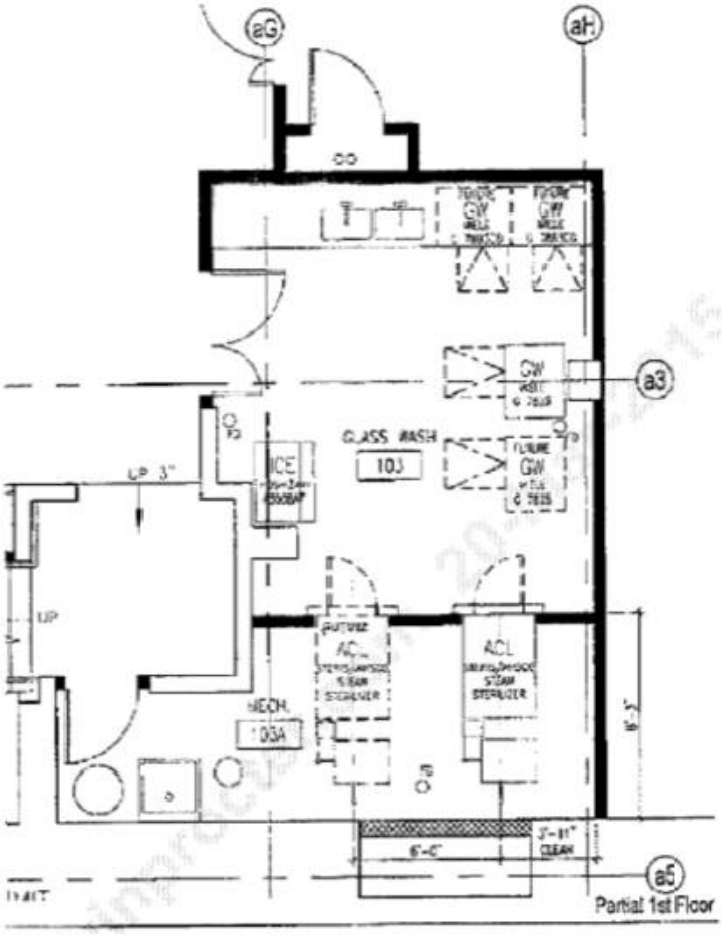

EXHIBIT C TO LEASE

DESCRIPTION OR PLAN OF SHARED CONFERENCE FACILITY

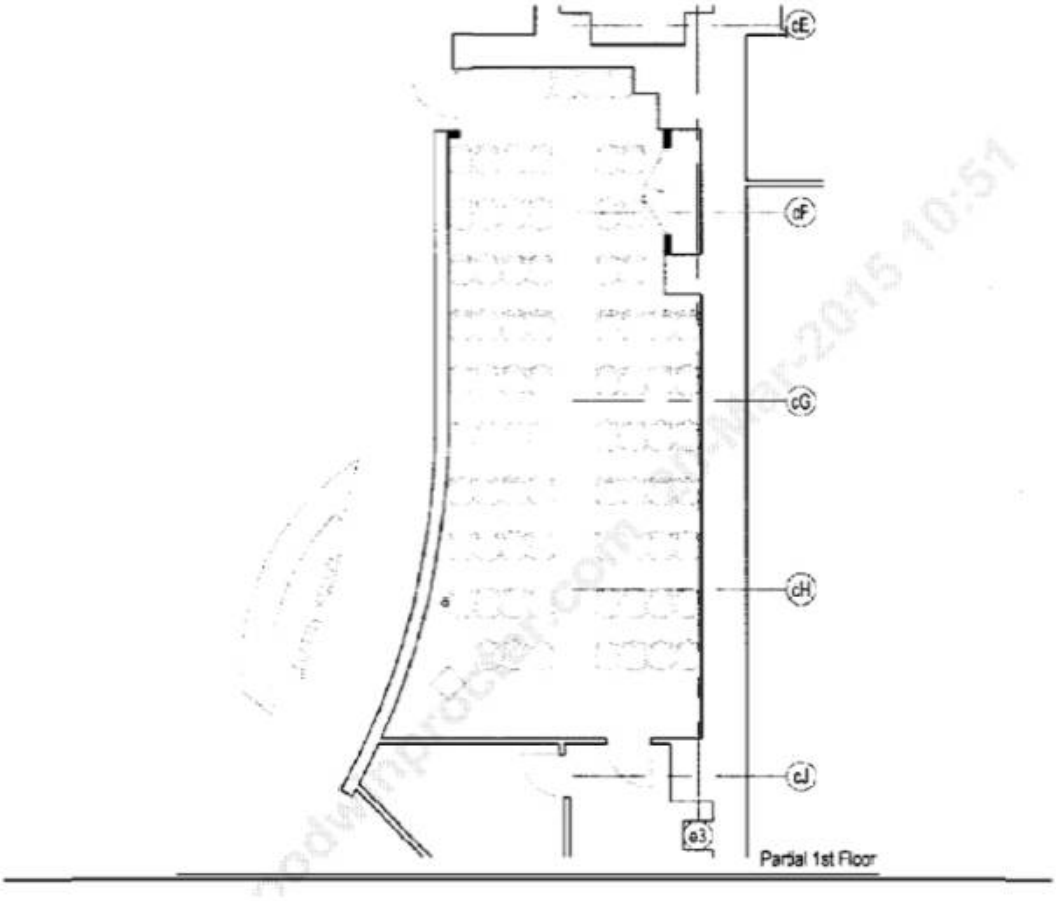

EXHIBIT D TO LEASE

DESCRIPTION OF PROJECT

A certain parcel of land with the buildings thereon, in Cambridge, Middlesex County, Massachusetts, known as and numbered 215 First Street, and bounded and described as follows:

Beginning at the northwest corner of Athenaeum Street and First Street, said point being the southeasterly corner of the parcel;

Thence running N 80 degrees 12'27" W, a distance of 399.30 feet along the northerly line of said Athenaeum Street;

Thence turning and running N 09 degrees 43'10" E, a distance of 200.00 feet along the easterly line of Second Street;

Thence turning and running S 80 degrees 12'27" E, a distance of 399.41 feet along the southerly line of Munroe Street;

Thence turning and running S 09 degrees 45'06" W, a distance of 200.00 feet along the westerly line of First Street to the point of beginning.

The above described parcel contains 79,871 square feet, more or less.

EXHIBIT E TO LEASE

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this "**Agreement**"), dated as of , 2011, is made and entered into by and between ARE-MA REGION NO. 38, LLC, a Delaware limited liability company ("**Licensor**"), and BLUEPRINT MEDICINES CORPORATION, a Delaware corporation ("**Licensee**"), with reference to the following Recitals:

RECITALS

A. Licensor is the owner of that certain property commonly known as 215 First Street, Cambridge, Massachusetts (the "**Property**").

B. Concurrently herewith, Licensee and Licensor are entering into that certain Lease Agreement (the "**Lease**") for certain space located at the Property and more particularly described therein (the "**Premises**"). All initially capitalized terms used herein but not otherwise defined shall have the respective meanings ascribed thereto in the Lease.

C. Licensee desires to have, and Licensor desires to grant to Licensee, certain rights to access and use a certain area of the Property described as the "**Shared Science Facility**" on **Exhibit 1** attached hereto and a certain area of the Property described as the "**Shared Conference Facility**" on **Exhibit 2** attached hereto, all in accordance with the terms and provisions set forth below.

AGREEMENT

For and in consideration of the covenants and premises herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. **License. Scheduling and Fees for Shared Conference Facility**.

(a) **License.** Licensor hereby grants Licensee, and Licensee hereby accepts, a nonexclusive license to use the Shared Science Facility and the Shared Conference Facility subject to the terms and provisions of this Agreement.

(b) **Scheduling and Fees for Shared Conference Facility.** Use by Licensee of the Shared Conference Facility shall be in common with others entitled to use the Shared Conference Facility in accordance with scheduling procedures reasonably determined by Licensor. Licensor shall use commercially reasonable efforts to schedule users on a first-come, first-served basis, but Licensor reserves the right to exercise its discretion in the event of conflicting scheduling requests among users. The first two occasions in a calendar month that Licensee uses the Shared Conference Facility shall be at no charge for such use, and thereafter Licensee shall pay the hourly charges established by Licensor from time to time for use of the Shared Conference Facility. The current hourly charge for the use of the Shared Conference Facility as of the date of this Lease is $200 per hour and is subject to change as determined by

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Licensor from time to time. Payment of such hourly charges shall be made within 10 days of invoice therefor, and Licensor reserves the right to require an advance deposit from time to time.

2. **Use**. Licensee shall exercise its limited rights hereunder in compliance with all laws, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants and restrictions now or hereafter applicable to the Property, Shared Science Facility or Shared Conference Facility and the use and occupancy thereof, including the rules and regulations attached as **Exhibit 3** hereto, as the same may be revised by Licensor from time to time.

3. **Term**. The term of this Agreement shall commence on the Commencement Date set forth in the Lease (the "**Commencement Date**") and continue until the earlier to occur of (a) the last day on which Licensee is entitled to occupy the Premises pursuant to the terms of the Lease, (b) the date this Agreement is sooner terminated pursuant to its terms, and (c) the date the Lease is sooner terminated pursuant to its terms. The period between the Commencement Date and the date of termination of this Agreement shall be the "**Term**."

4. **Relocation and Modification of Shared Science Facility or Shared Conference Facility**. Licensor shall have the right at any time to reconfigure, relocate or modify the Shared Science Facility and/or Shared Conference Facility from time to time and to revise or expand any of the services (if

any) provided therein; provided, however, that such reconfiguration, relocation or modification of the respective facility or any revision or expansion of services shall not materially adversely affect Tenant's use of such facility or service as permitted pursuant to this Agreement.

5. **Interference**. Licensee shall use the Shared Science Facility and Shared Conference Facility in a manner that will not interfere with the rights of any tenants, other licensees or Licensor's service providers. Licensor assumes no responsibility for enforcing Licensee's rights or for protecting the Shared Science Facility or Shared Conference Facility from interference or use from any person, including, without limitation, tenants or other licensees of the Property.

6. **Default by Licensee**.

(a) It is mutually agreed that Licensee shall be in default hereunder ("**Default**"),

(i) if Licensee fails to comply with any of the terms or provisions of this Agreement, and fails to cure such default within 30 days after the date of delivery of written notice of default from Licensor, provided that if the nature of such default is such that it cannot be cured by the payment of money and reasonably requires more than 30 days to cure, then Licensee shall not be deemed to be in Default under this License if Licensee commences such cure within 30 days of the aforesaid notice from Licensor and thereafter diligently prosecutes such cure to completion within 90 days of the aforesaid notice from Licensor; or

(ii) with respect to the Shared Conference Facility, if Licensee fails to pay any fees or charges for use of the Shared Conference Facility or other amounts required hereunder when due pursuant to this Agreement; provided, however, that

Licensor will give Licensee notice and an opportunity to cure any failure to pay such fees or charges within 3 business days of any such notice not more than once in any 12 month period and Licensee agrees that such notice shall be in lieu of and not in addition to, or shall be deemed to be, any notice required by law or

(iii) during the occurrence and continuation of any Default (as defined in the Lease) under the Lease.

(b) In the event of any Default by Licensee hereunder, Licensor shall be entitled to all rights and remedies provided for Landlord under the Lease, and all other rights and remedies provided at law or in equity, including without limitation, termination of this Agreement and the license granted hereunder.

7. **Indemnification and Limitation of Liability**.

(a) Licensor's sole obligation for providing standby generators or any other standby power equipment, other equipment, systems, furnishings or personal property to the Shared Science Facility or Shared Conference Facility, whether or not affixed to the Building (collectively, "**Equipment**") shall be (i) to provide such Equipment as is determined by Licensor in its sole and absolute discretion, and (ii) to contract with a third party (determined by Licensor to be qualified) to maintain the Equipment that is deemed by Licensor (in its reasonable professional discretion) to need periodic maintenance per the manufacturer's standard maintenance guidelines. Licensor shall have no obligation to provide Licensee with operational Equipment, back-up Equipment or back-up utilities or to supervise, oversee or confirm that the third party maintaining the Equipment is maintaining the Equipment as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the Equipment when such Equipment is not operational, including any delays thereto due to the inability to obtain parts or replacements, Licensor shall have no obligation to provide Licensee with alternative or back-up Equipment or alternative sources of utilities. Licensee expressly acknowledges and agrees that Licensor does not guaranty that the Equipment will be operational at all times, will function or perform adequately, or that emergency power will be available to the Premises when needed, and Licensor shall not be liable for any damages resulting from the failure of such Equipment. Licensee hereby releases Licensor from and against any and all claims arising directly or indirectly out of or relating to the Equipment, or the existence, use of failure thereof, unless caused solely by the willful misconduct or gross negligence of Licensor. The terms and provisions of this Section 7(a) shall survive the expiration or earlier termination of this Agreement.

(b) NOTWITHSTANDING ANYTHING SET FORTH HEREIN OR IN ANY OTHER AGREEMENT BETWEEN LICENSOR AND LICENSEE TO THE CONTRARY: (i) LICENSOR SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER PERSON FOR (AND LICENSEE AND EACH SUCH OTHER PERSON ASSUME ALL RISK OF) LOSS, DAMAGE OR INJURY, WHETHER ACTUAL OR CONSEQUENTIAL TO PERSONAL PROPERTY OF EVERY KIND AND DESCRIPTION, INCLUDING, WITHOUT LIMITATION, TRADE FIXTURES, EQUIPMENT, INVENTORY, SCIENTIFIC RESEARCH, SCIENTIFIC EXPERIMENTS, LABORATORY ANIMALS, PRODUCT, SPECIMENS, SAMPLES, AND/OR SCIENTIFIC, BUSINESS, ACCOUNTING AND OTHER RECORDS

OF EVERY KIND AND DESCRIPTION AND ANY AND ALL INCOME DERIVED OR DERIVABLE THEREFROM; and (ii) THERE SHALL BE NO PERSONAL RECOURSE TO LICENSOR FOR ANY ACT OR OCCURRENCE IN, ON OR ABOUT THE PREMISES, SHARED SCIENCE FACILITY, SHARED CONFERENCE FACILITY OR PROJECT OR ARISING IN ANY WAY UNDER THIS LICENSE AGREEMENT OR ANY OTHER AGREEMENT BETWEEN LICENSOR AND LICENSEE WITH RESPECT TO THE SUBJECT MATTER HEREOF AND ANY LIABILITY OF LICENSOR HEREUNDER SHALL BE STRICTLY LIMITED SOLELY TO LICENSOR'S INTEREST IN THE PROJECT OR ANY PROCEEDS FROM SALE OR CONDEMNATION THEREOF AND ANY INSURANCE PROCEEDS PAYABLE IN RESPECT OF LICENSOR'S INTEREST IN THE PROJECT OR IN CONNECTION WITH ANY SUCH LOSS; AND (iii) IN NO EVENT SHALL ANY PERSONAL LIABILITY BE ASSERTED AGAINST LICENSOR OR ANY OF ITS OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS IN CONNECTION WITH THIS LICENSE AGREEMENT NOR SHALL ANY RECOURSE BE HAD TO ANY OTHER PROPERTY OR ASSETS OF LICENSOR OR ANY OF LICENSOR'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS.

(c) Licensee acknowledges and agrees that there are no warranties of any kind, whether express or implied, made by Licensor or otherwise with respect to the Shared Science Facility, Shared Conference Facility or any services (if any) provided in either the Shared Science Facility or Shared Conference Facility, and Licensee disclaims any and all such warranties.

(d) Licensor shall not be in default hereunder unless Licensor fails to perform any of its obligations hereunder within thirty (30) days after written notice from Licensee specifying such failure, with such extension of time by reason of Force Majeure as may be reasonably necessary; provided, however,

that if the nature of Licensor's obligation arises from an emergency condition and Licensee provides notice to Licensor (which may be telephonic if followed by written notice on the same day describing the emergency condition in reasonable detail, including without limitation the emergency nature of the condition and specifying in all capital letters and boldface type that the condition is an emergency and response is required by Licensor pursuant to this Agreement), then Licensor shall respond within a reasonable period after receipt of such notice of the emergency condition. Licensee's sole remedy for any breach or default by Licensor hereunder shall be to terminate this Agreement and Licensee hereby, to the maximum extent possible, knowingly waives the provisions of any law or regulation, now or hereafter in effect which provides additional or other remedies to Licensee as a result of any breach by Licensor hereunder or under any such law or regulation.

8. **Miscellaneous**.

(a) This Agreement, together with the Lease, constitutes the entire agreement and understanding between the parties, and supersedes all offers, negotiations and other agreements concerning the subject matter contained herein. Any amendments to this Agreement must be in writing and executed by both parties.

(b) If any clause or provision of this Agreement is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this Agreement shall not be affected thereby.

(c) This Agreement shall be binding on and inure to the benefit of the successors and permitted assigns of the respective parties.

(d) All notices or other communications between the parties shall be in writing and shall be deemed duly given upon delivery or refusal to accept delivery by the addressee thereof if delivered in person, or upon actual receipt if delivered by reputable overnight guaranty courier, addressed and sent to the parties at their addresses set forth in the Lease (as the same may be revised from time to time in accordance with the terms of the Lease).

(e) The license granted hereunder is appurtenant to Licensee's leasehold interest in the Premises and may not be assigned or otherwise pledged or transferred, directly or indirectly, except in connection with any assignment of the Lease or sublease of the Premises to which Landlord consents or is otherwise permitted under the Lease. In the event of a permitted assignment of the Lease, this Agreement shall automatically be assigned thereby, and thereupon the assigning Licensee shall have no further rights to use or access the Shared Science Facility or Shared Conference Facility. No assignment or other transfer of the Lease or of this License shall release Licensee of its obligations hereunder.

(f) This Agreement shall be construed, interpreted, governed and enforced pursuant to the laws of the state in which the Property is located.

(g) This Agreement may be executed in multiple counterparts but all counterparts taken together shall constitute a single document.

(h) Time is of the essence of each and every provision of this Agreement.

(i) The parties to this Agreement hereby acknowledge that each such party and its counsel have participated in the negotiation and preparation of this Agreement, and this Agreement shall be construed and interpreted without regard to any presumption or other rule requiring construction against the party causing the Agreement to be drafted.

(j) Licensee acknowledges that its use of the Shared Science Facility and Shared Conference Facility are non-exclusive and will be subject to the use of other tenants and licensees of the Property. Licensee acknowledges that it will be important for all such users to cooperate with each other to maintain the confidentiality of each party's documents and operations as well as information a party may hold under confidential arrangements with third parties. Licensee shall maintain and treat as confidential and secret all information and materials which may intentionally or unintentionally be disclosed to it in connection with such shared occupancy (the "**Confidential Information**"). Licensee shall not disclose Confidential Information to any third party and will take appropriate action by instruction, agreement or otherwise with its employees, agents, affiliates, associates, representatives, contractors and invitees to ensure that security of the Confidential Information is maintained. Notwithstanding the foregoing, Licensee may disclose Confidential Information to the extent that (a) disclosure is compelled by judicial or administrative process or other requirements of law, or (b) Licensee can

show that such Confidential Information (i) was publicly available prior to the date of this Agreement or thereafter became publicly available without violation of this Agreement by Licensee or its employees, agents, affiliates, associates, representatives, contractors or invitees, or (ii) became available to Licensee by means other than its use of or access to the Shared Science Facility or Shared Conference Facility. The provisions of this Section 8(j) shall survive the expiration or earlier termination of this Agreement.

[Signatures On Next Page]

IN WITNESS WHEREOF, Licensor and Licensee have caused this Agreement to be executed by their duly authorized representatives as of the date first above written.

LICENSEE:

BLUEPRINT MEDICINES CORPORATION, a Delaware corporation

By: _____

Its: _____

LICENSOR:

ARE-MA REGION NO. 38, LLC, a Delaware limited liability corporation

By: Alexandria Real Estate Equities, L.P., a Delaware limited partnership, member

By: ARE-QRS Corp., a Maryland corporation, general partner

By: _____

Its: _____

EXHIBIT 1 TO LICENSE AGREEMENT

DESCRIPTION OR PLAN OF SHARED SCIENCE FACILITY

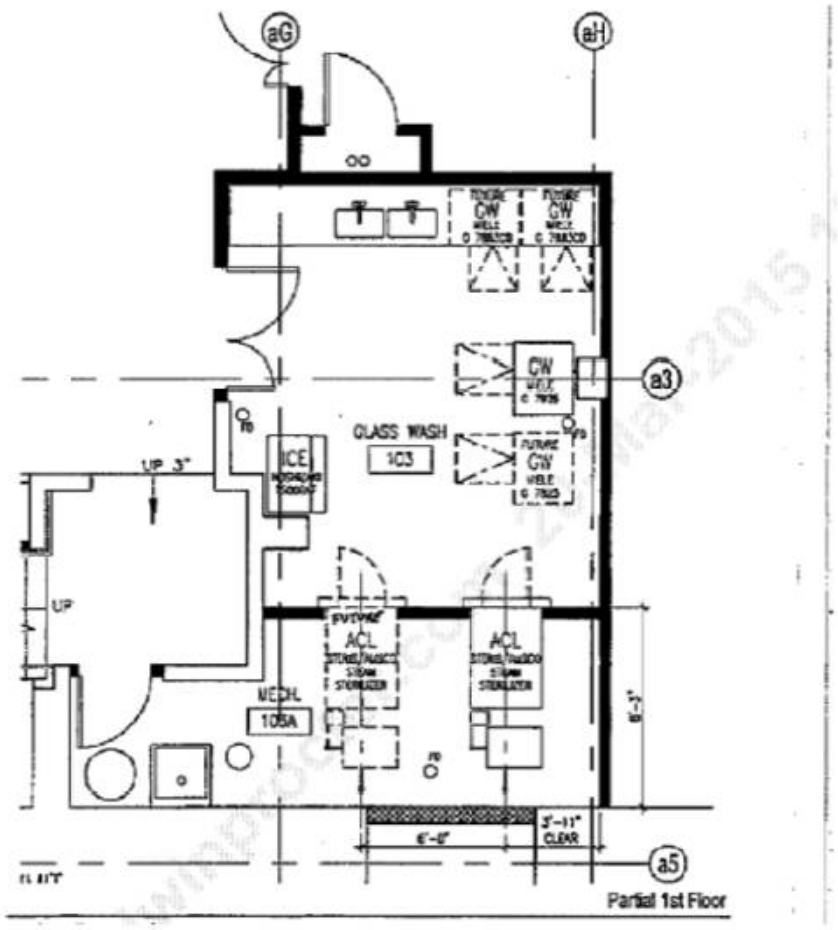

EXHIBIT 2 TO LICENSE AGREEMENT

DESCRIPTION OR PLAN OF SHARED CONFERENCE FACILITY

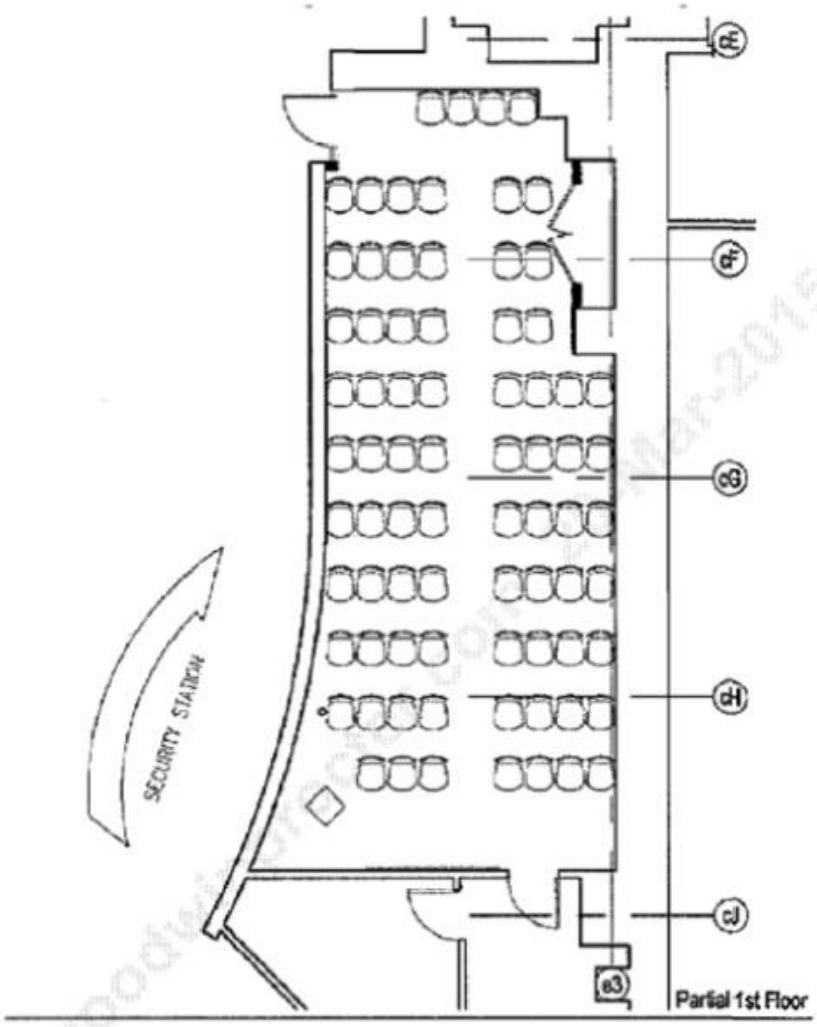

EXHIBIT 3 TO LICENSE AGREEMENT

RULES AND REGULATIONS

Rules and regulations (if any) will be established and implemented by Licensor during the Term.

EXHIBIT F TO LEASE

WORK LETTER

THIS WORK LETTER dated June 24, 2011 (this "**Work Letter**") is made and entered into by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of the Lease Agreement dated June 24, 2011 (the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

1. **General Requirements**.

(a) **Tenant's Authorized Representative.** Tenant designates Deborah Palestrant and Chris Varma (either such individual acting alone, "**Tenant's Representative**") as the only persons authorized to act for Tenant pursuant to this Work Letter. Landlord shall not be obligated to respond to or act upon any request, approval, inquiry or other communication ("**Communication**") from or on behalf of Tenant in connection with this Work Letter unless such Communication is in writing from Tenant's Representative. Tenant may change either Tenant's Representative at any time upon not less than 5 business days advance written notice to Landlord. Neither Tenant nor Tenant's Representative shall be authorized to direct Landlord's contractors in the performance of Landlord's Work (as hereinafter defined).

(b) **Landlord's Authorized Representative.** Landlord designates Jeff McComish and Joseph Maguire (either such individual acting alone, "**Landlord's Representative**") as the only persons authorized to act for Landlord pursuant to this Work Letter. Tenant shall not be obligated to respond to or act upon any request, approval, inquiry or other Communication from or on behalf of Landlord in connection with this Work Letter unless such Communication is in writing from Landlord's Representative. Landlord may change either Landlord's Representative at any time upon not less than 5 business days advance written notice to Tenant. Landlord's Representative shall be the sole persons authorized to direct Landlord's contractors in the performance of Landlord's Work.

(c) **Architects, Consultants and Contractors.** Landlord and Tenant hereby acknowledge and agree that: (i) the general contractor and any subcontractors for the Tenant Improvements shall be selected by Landlord, and (ii) R.E. Dinneen Architects & Planners, Inc. shall be the architect (the "**TI**

Architect") for the Tenant Improvements.

2. **Tenant Improvements**.

(a) **Tenant Improvements Defined.** As used herein, "**Tenant Improvements**" shall mean all improvements to the Project of a fixed and permanent nature as shown on the TI Construction Drawings, as defined in Section 2(c) below. Other than the performance of the work on the Tenant Improvements, Landlord shall not have any obligation whatsoever with respect to the finishing of the Premises for Tenant's use and occupancy.

(b) **Tenant's Space Plans.** The schematic drawings and outline specifications (the "**TI Design Drawings**") detailing Tenant's requirements for the Tenant

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Improvements are as follows: RE Dinneen Architects & Planners, Blueprint Medicines 3rd floor Drawings for 215 First Street, Cambridge MA dated 6/17/2011.

(c) **Working Drawings.** Landlord shall cause the TI Architect to prepare and deliver to Tenant for review and comment construction plans, specifications and drawings for the Tenant Improvements ("**TI Construction Drawings**"), which TI Construction Drawings shall be prepared substantially in accordance with the TI Design Drawings. Tenant shall be solely responsible for ensuring that the TI Construction Drawings reflect Tenant's requirements for the Tenant Improvements. Tenant shall deliver its written comments on the TI Construction Drawings to Landlord not later than 5 business days after Tenant's receipt of the same; provided, however, that Tenant may not disapprove any matter that is consistent with the Tl Design Drawings without submitting a Change Request. Landlord and the TI Architect shall consider all such comments in good faith and shall, within 5 business days after receipt, notify Tenant how Landlord proposes to respond to such comments, but Tenant's review rights pursuant to the foregoing sentence shall not delay the design or construction schedule for the Tenant Improvements. Any disputes in connection with such comments shall be resolved in accordance with Section 2(d) hereof. Provided that the design reflected in the TI Construction Drawings is consistent with the Tl Design Drawings, Tenant shall approve the TI Construction Drawings submitted by Landlord, unless Tenant submits a Change Request. Once approved by Tenant, subject to the provisions of Section 4 below, Landlord shall not materially modify the TI Construction Drawings except as may be reasonably required in connection with the issuance of the TI Permit (as defined in Section 3(b) below). Landlord shall notify Tenant of any such material modifications as may be reasonably required in connection with the issuance of the TI Permit.

(d) **Approval and Completion.** It is hereby acknowledged by Landlord and Tenant that the TI Construction Drawings must be completed and approved no later than June 30, 2011, in order for the Landlord's Work to be Substantially Complete by the Target Commencement Date (as defined in the Lease). Upon any dispute regarding the design of the Tenant Improvements, which is not settled within 10 business days after notice of such dispute is delivered by one party to the other, Tenant may make the final decision regarding the design of the Tenant Improvements, provided (i) Tenant acts reasonably and such final decision is either consistent with or a compromise between Landlord's and Tenant's positions with respect to such dispute, (ii) that all costs and expenses resulting from any such decision by Tenant shall be payable by Tenant, except to the extent that the design chosen by Tenant is included in the TI Design Drawings, and (iii) Tenant's decision will not affect the base Building, structural components of the Building or any Building Systems. Any changes to the TI Construction Drawings following Landlord's and Tenant's approval of same requested by Tenant shall be processed as provided in Section 4 hereof.

3. **Performance of Landlord's Work**.

(a) **Definition of Landlord's Work.** As used herein, "**Landlord's Work**" shall mean the work of constructing the Tenant Improvements.

(b) **Commencement and Permitting.** Landlord shall commence construction of the Tenant Improvements upon obtaining a building permit (the "**TI Permit**") authorizing the

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construction of the Tenant Improvements consistent with the Tl Construction Drawings approved by Tenant. The cost of obtaining the Tl Permit shall be paid by Landlord. Tenant shall assist Landlord in obtaining the Tl Permit. If any Governmental Authority having jurisdiction over the construction of Landlord's Work or any portion thereof shall impose terms or conditions upon the construction thereof that: (i) are inconsistent with Landlord's obligations hereunder, (ii) increase the cost of constructing Landlord's Work, or (iii) will materially delay the construction of Landlord's Work, Landlord and Tenant shall reasonably and in good faith seek means by which to mitigate or eliminate any such adverse terms and conditions.

(c) **Completion of the Tenant Improvements.** Landlord shall substantially complete or cause to be substantially completed the Tenant Improvements in a good and workmanlike manner, in accordance with applicable Legal Requirements, the approved TI Construction Drawings and the Tl Permit subject, in each case, to Minor Variations and normal "punch list" items of a non-material nature that do not interfere with the use of the Premises ("**Substantial Completion**" or "**Substantially Complete**"). Upon Substantial Completion of the Tenant Improvements, Landlord shall require the TI Architect and the general contractor to execute and deliver, for the benefit of Tenant and Landlord, a Certificate of Substantial Completion in the form of the American Institute of Architects ("**AIA**") document G704. If required by applicable Legal Requirements, a certificate of occupancy (which may include a conditional certificate of occupancy) for the Tenant Improvements or permission to occupy issued by the appropriate municipal official shall be required for Substantial Completion; provided, however, that no delay on the part of the applicable Governmental Authority or municipal official in the issuance of such certificate of occupancy or permission to occupy, which delay arises from or relates to work by Tenant or its contractors, shall operate to delay Substantial Completion, and any such delay that arises from or relates to work by Tenant or its contractors shall be deemed to be a "Tenant Delay" under Section 3(f) below. If a conditional certificate of occupancy is issued, Landlord agrees to use commercially reasonable efforts to obtain the certificate of occupancy prior to the expiration of the conditional certificate of occupancy or obtain an extension of such conditional certificate of occupancy. For purposes of this Work Letter, "**Minor Variations**" shall mean any modifications reasonably required: (i) to comply with all applicable Legal Requirements and/or to obtain or to comply with any required permit (including the TI Permit); (ii) to comply with any request by Tenant for modifications to the Tenant Improvements; (iii) to comport with good design, engineering, and construction practices that are not material; or (iv) to make reasonable adjustments for field deviations or conditions encountered during the construction of Landlord's Work.

(d) **Selection of Materials.** Where more than one type of material or structure is indicated on the Tl Construction Drawings approved by Landlord and Tenant, the option will be selected at Landlord's sole and absolute subjective discretion. As to all building materials and equipment that Landlord is obligated to supply under this Work Letter, unless otherwise specified in the Tl Construction Drawings, Landlord shall select the manufacturer thereof in its sole and absolute subjective discretion.

(e) **Delivery of the Premises.** When the Tenant Improvements are Substantially Complete, subject to the remaining terms and provisions of this Section 3(e), Tenant shall accept the Premises. Tenant's taking possession and acceptance of the Premises shall not constitute a waiver of: (i) any warranty

with respect to workmanship (including

installation of equipment) or material (exclusive of equipment provided directly by manufacturers), (ii) any non-compliance of the Tenant Improvements with applicable Legal Requirements, or (iii) any claim that the Tenant Improvements were not completed substantially in accordance with the TI Construction Drawings (subject to Minor Variations and such other changes as are permitted hereunder) (collectively, a "**Construction Defect**"). Tenant shall have one year after Substantial Completion within which to notify Landlord of any such Construction Defect discovered by Tenant, and Landlord shall use reasonable efforts to remedy or cause the responsible contractor to remedy any such Construction Defect within 30 days thereafter; provided, however, that Landlord shall not be in default under the Lease if the applicable contractor, despite Landlord's reasonable efforts, fails to remedy such Construction Defect within such 30-day period, in which case Landlord shall continue to use reasonable efforts to cause such contractor to remedy such Construction Defect.

(f) Tenant shall be entitled to receive the benefit of all construction warranties and manufacturer's equipment warranties relating to equipment installed in the Premises. If requested by Tenant, Landlord shall attempt to obtain extended warranties from manufacturers and suppliers of such equipment, but the cost of any such extended warranties shall be borne solely by Tenant. Landlord shall promptly undertake and complete, or cause to be completed, all punch list items in a manner that does not materially adversely affect Tenant's use of the Premises for the Permitted Use.

(g) **Commencement Date Delay.** Except as otherwise provided in the Lease, Delivery of the Premises shall occur when the Tenant Improvements have been Substantially Completed, except to the extent that completion of the Tenant Improvements shall have been actually delayed by any one or more of the following causes ("**Tenant Delay**"):

(i) Tenant's Representative was not available to give or receive any Communication or to take any other action required to be taken by Tenant hereunder;

(ii) Tenant's request for Change Requests (as defined in Section 4(a) below) whether or not any such Change Requests are actually performed;

(iii) Construction of any Change Requests;

(iv) Tenant's request for materials, finishes or installations requiring unusually long lead times, provided that Landlord has advised Tenant of such long lead time items and Tenant continued to require such long lead time items;

(v) Tenant's delay in reviewing, revising or approving plans and specifications beyond the periods set forth herein;

(vi) Tenant's delay in providing information critical to the normal progression of the Project. Tenant shall provide such information as soon as reasonably possible, but in no event longer than 3 business days after receipt of any request for such information from Landlord;

(vii) Tenant's delay in making payments to Landlord for Excess Tl Costs (as defined in Section 5 below); or

(viii) Any other act or omission by Tenant or any Tenant Party (as defined in the Lease), or persons employed by any of such persons that continues for more that 3 business days after written notice from Landlord.

If Delivery is delayed for any of the foregoing reasons, then Landlord shall cause the TI Architect to certify the date on which the Tenant Improvements would have been completed but for such Tenant Delay and such certified date shall be the date of Delivery.

4. **Changes**. Any changes requested by Tenant to the Tenant Improvements after the delivery and approval by Landlord of the TI Design Drawings shall be requested and instituted in accordance with the provisions of this Section 4 and shall be subject to the written approval of Landlord and the TI Architect, such approval not to be unreasonably withheld, conditioned or delayed.

(a) **Tenant's Request For Changes.** If Tenant shall request changes to the Tenant improvements ("**Changes**"), Tenant shall request such Changes by notifying Landlord in writing in substantially the same form as the AIA standard change order form (a "**Change Request**"), which Change Request shall detail the nature and extent of any such Change. Such Change Request must be signed by Tenant's Representative. Landlord shall, before proceeding with any Change, use commercially reasonable efforts to respond to Tenant as soon as is reasonably possible with an estimate of: (i) the time it will take, and (ii) the architectural and engineering fees and costs that will be incurred, to analyze such Change Request (which costs shall be paid by Tenant to the extent actually incurred, whether or not such change is implemented). Landlord shall thereafter submit to Tenant in writing, within 5 business days of receipt of the Change Request (or such longer period of time as is reasonably required depending on the extent of the Change Request), an analysis of the additional cost or savings involved, including, without limitation, architectural and engineering costs and the period of time, if any, that the Change will extend the date on which the Tenant Improvements will be Substantially Complete. Any such delay in the completion of the Tenant Improvements caused by a Change, including any suspension of the Tenant Improvements while any such Change is being evaluated and/or designed, shall be Tenant Delay.

(b) **Implementation of Changes.** If Tenant: (i) approves in writing the cost or savings and the estimated extension in the time for completion of the Tenant Improvements, if any, and (ii) deposits with Landlord any Excess TI Costs required in connection with such Change, Landlord shall cause the approved Change to be instituted. Notwithstanding any approval or disapproval by Tenant of any estimate of the delay caused by such proposed Change, the TI Architect's determination of the amount of Tenant Delay in connection with such Change shall be final and binding on Landlord and Tenant.

5. **Excess TI Costs**. Landlord shall pay for the design, permits and construction costs in connection with the construction of the Tenant Improvements, including, without limitation, the cost of electrical power and other utilities used in connection with the construction of the Tenant Improvements, the cost of preparing the TI Design Drawings and TI Construction Drawings, except that Tenant shall be solely responsible for paying Landlord for all costs resulting from Tenant Delays, Changes and Minor Variations resulting from any request by Tenant for modifications to the Tenant Improvements. The costs resulting from Tenant Delays,

Changes and such Minor Variations are referred to as "**Excess TI Costs**". Landlord shall have no obligation to bear any portion of the Excess TI Costs. If Tenant fails to pay Landlord within 10 days after demand for any Excess TI Costs, Landlord shall have all of the rights and remedies set forth in the Lease for nonpayment of Rent (including, but not limited to, the right to interest at the Default Rate and the right to assess a late charge). For purposes of any litigation instituted with regard to such amounts, those amounts will be deemed Rent under the Lease. Notwithstanding anything to the contrary contained herein, Landlord shall not be responsible for the purchase or installation of any furniture, personal property or other non-Building system materials or equipment, including, but not limited to, Tenant's voice or data cabling, non-ducted biological safety cabinets and other scientific equipment not incorporated into the Tenant Improvements.

6. **Tenant Access**.

(a) **Tenant's Access Rights.** Landlord hereby agrees to permit Tenant access, at Tenant's sole risk and expense, to the Building (i) 30 days prior to the Commencement Date to perform any work ("**Tenant's Work**") required by Tenant other than the Tenant Improvements, provided that such Tenant's Work is coordinated with the Tl Architect and the general contractor, and complies with the Lease and all other reasonable restrictions and conditions Landlord may impose, and (ii) prior to the completion of the Tenant Improvements, to inspect and observe work in process; all such access shall be during normal business hours or at such other times as are reasonably designated by Landlord. Notwithstanding the foregoing, Tenant shall have no right to enter onto the Premises or the Project unless and until Tenant shall deliver to Landlord evidence reasonably satisfactory to Landlord demonstrating that any insurance reasonably required by Landlord in connection with such pre-commencement access (including, but not limited to, any insurance that Landlord may require pursuant to the Lease) is in full force and effect. Any entry by Tenant shall comply with all established safety practices of Landlord's contractor and Landlord until completion of the Tenant improvements and acceptance thereof by Tenant.

(b) **No Interference.** Neither Tenant nor any Tenant Party (as defined in the Lease) shall interfere with the performance of the Tenant Improvements, nor with any inspections or issuance of final approvals by applicable Governmental Authorities, and upon any such interference, Landlord shall have the right to exclude Tenant and any Tenant Party from the Premises and the Project until Substantial Completion of the Tenant Improvements.

(c) **No Acceptance of Premises.** The fact that Tenant may, with Landlord's consent, enter into the Project prior to the date the Tenant Improvements are Substantially Complete for the purpose of performing Tenant's Work shall not be deemed an acceptance by Tenant of possession of the Premises, but in such event Tenant shall defend with counsel reasonably acceptable by Landlord, indemnify and hold Landlord harmless from and against any loss of or damage to Tenant's property, completed work, fixtures, equipment, materials or merchandise, and from liability for death of, or injury to, any person, caused by the act or omission of Tenant or any Tenant Party.

7. **Miscellaneous**.

(a) **Consents.** Whenever consent or approval of either party is required under this Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, unless expressly set forth herein to the contrary.

(b) **Modification.** No modification, waiver or amendment of this Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.

(c) **Default.** Notwithstanding anything set forth herein or in the Lease to the contrary, Landlord shall not have any obligation to perform any work hereunder or to fund any portion of the Tenant Improvements during any period Tenant is in Default under the Lease.

EXHIBIT G TO LEASE

ACKNOWLEDGMENT OF COMMENCEMENT DATE

This **ACKNOWLEDGMENT OF COMMENCEMENT DATE** is made this day of , , between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of the Lease dated , (the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

Landlord and Tenant hereby acknowledge and agree, for all purposes of the Lease, that the Commencement Date of the Base Term of the Lease is , and the termination date of the Base Term of the Lease shall be midnight on , . In case of a conflict between this Acknowledgment of Commencement Date and the Lease, this Acknowledgment of Commencement Date shall control for all purposes.

IN WITNESS WHEREOF, Landlord and Tenant have executed this ACKNOWLEDGMENT OF COMMENCEMENT DATE to be effective on the date first above written.

TENANT:

BLUEPRINT MEDICINES CORPORATION, a Delaware corporation

By: _____
Its: _____

LANDLORD:

ARE-MA REGION NO. 38, LLC, a Delaware limited liability corporation

By: Alexandria Real Estate Equities, L.P., a Delaware limited partnership, member

By: ARE-QRS Corp., a Maryland corporation, general partner

By: _____
Its: _____

EXHIBIT H TO LEASE

TENANT'S PERSONAL PROPERTY

None.

EXHIBIT I TO LEASE

RULES AND REGULATIONS

1. The sidewalk, entries, and driveways of the Project shall not be obstructed by Tenant, or any Tenant Party, or used by them for any purpose other than ingress and egress to and from the Premises.

2. Tenant shall not place any objects, including antennas, outdoor furniture, etc., in the parking areas, landscaped areas or other areas outside of its Premises, or on the roof of the Project.

3. Except for animals assisting the disabled, no animals shall be allowed in the offices, halls, or corridors in the Project.

4. Tenant shall not disturb the occupants of the Project or adjoining buildings by the use of any radio or musical instrument or by the making of loud or improper noises.

5. If Tenant desires telegraphic, telephonic or other electric connections in the Premises, Landlord or its agent will direct the electrician as to where and how the wires may be introduced; and, without such direction, no boring or cutting of wires will be permitted. Any such installation or connection shall be made at Tenant's expense.

6. Tenant shall not install or operate any steam or gas engine or boiler, or other mechanical apparatus in the Premises, except as specifically approved in the Lease. The use of oil, gas or inflammable liquids for heating, lighting or any other purpose is expressly prohibited. Explosives or other articles deemed extra hazardous shall not be brought into the Project.

7. Parking any type of recreational vehicles is specifically prohibited on or about the Project. Except for the overnight parking of operative vehicles, no vehicle of any type shall be stored in the parking areas at any time. In the event that a vehicle is disabled, it shall be removed within 48 hours. There shall be no "For Sale" or other advertising signs on or about any parked vehicle. All vehicles shall be parked in the designated parking areas in conformity with all signs and other markings. All parking will be open parking, and no reserved parking, numbering or lettering of individual spaces will be permitted except as specified by Landlord.

8. Tenant shall maintain the Premises free from rodents, insects and other pests.

9. Landlord reserves the right to exclude or expel from the Project any person who, in the judgment of Landlord, is intoxicated or under the influence of liquor or drugs or who shall in any manner do any act in violation of the Rules and Regulations of the Project.

10. Tenant shall not cause any unnecessary labor by reason of Tenant's carelessness or indifference in the preservation of good order and cleanliness. Landlord shall not be responsible to Tenant for any loss of property on the Premises, however occurring, or for any damage done to the effects of Tenant by the janitors or any other employee or person.

11. Tenant shall give Landlord prompt notice of any defects in the water, lawn sprinkler, sewage, gas pipes, electrical lights and fixtures, heating apparatus, or any other service equipment affecting the Premises.

12. Tenant shall not permit storage outside the Premises, including without limitation, outside storage of trucks and other vehicles, or dumping of waste or refuse or permit any harmful materials to be placed in any drainage system or sanitary system in or about the Premises.

13. All moveable trash receptacles provided by the trash disposal firm for the Premises must be kept in the trash enclosure areas, if any, provided for that purpose.

14. No auction, public or private, will be permitted on the Premises or the Project.

15. No awnings shall be placed over the windows in the Premises except with the prior written consent of Landlord.

16. The Premises shall not be used for lodging, sleeping or cooking (except that Tenant may use microwave ovens, toasters and coffee makers in the Premises for the benefit of Tenant's employees and contractors in an area designated for such items, but only if the use thereof is at all times supervised by the

individual using the same) or for any immoral or illegal purposes or for any purpose other than that specified in the Lease. No gaming devices shall be operated in the Premises.

17. Tenant shall ascertain from Landlord the maximum amount of electrical current which can safely be used in the Premises, taking into account the capacity of the electrical wiring in the Project and the Premises and the needs of other tenants, and shall not use more than such safe capacity. Landlord's consent to the installation of electric equipment shall not relieve Tenant from the obligation not to use more electricity than such safe capacity.

18. Tenant assumes full responsibility for protecting the Premises from theft, robbery and pilferage.

19. Tenant shall not install or operate on the Premises any machinery or mechanical devices of a nature not directly related to Tenant's ordinary use of the Premises and shall keep all such machinery free of vibration, noise and airwaves which may be transmitted beyond the Premises.

EXHIBIT J TO LEASE

NOTIFICATION OF THE PRESENCE OF ASBESTOS CONTAINING MATERIALS

This notification provides certain information about asbestos within or about the Premises at 215 First Street, Cambridge, MA ("**Building**").

Historically, asbestos was commonly used in building products used in the construction of buildings across the country. Asbestos-containing building products were used because they are fire-resistant and provide good noise and temperature insulation. Because of their prevalence, asbestos-containing materials, or ACMs, are still sometimes found in buildings today.

No ACMs were identified in an asbestos survey of the building conducted in 2007. However, to avoid damage, several materials were not sampled and are presumed asbestos-containing materials or PACMs as listed in the following table:

Material Description	Material Location
Ceramic tile adhesive and grout	Throughout restrooms; ground floor hallways; first floor lobby and hallways
Built-up roofing beneath rubber	Throughout roof
Flashing cement	Roof
Flex connectors on HVAC units	Roof

The PACMs described above were observed to be in good condition and may be managed in place. Because ACMs may be present within or about the Building, we have hired an independent environmental consulting firm to prepare an operations and maintenance program ("**O&M Program**"). The O&M Program is designed to minimize the potential of any harmful asbestos exposure to any person within or about the Building. The O&M Program includes a description of work methods to be taken in order to maintain any ACMs or PACMs within or about the Building in good condition and to prevent any significant disturbance of such ACMs or PACMs. Appropriate personnel receive regular periodic training on how to properly administer the O&M Program.

The O&M Program describes the risks associated with asbestos exposure and how to prevent such exposure through appropriate work practices. ACMs and PACMs generally are not thought to be a threat to human health unless asbestos fibers are released into the air and inhaled. This does not typically occur unless (1) the ACMs are in a deteriorating condition, or (2) the ACMs have been significantly disturbed (such as through abrasive cleaning, or maintenance or renovation activities). If inhaled, asbestos fibers can accumulate in the lungs and, as exposure increases, the risk of disease (such as asbestosis or cancer) increases. However, measures to minimize exposure, and consequently minimize the accumulation of asbestos fibers, reduce the risks of adverse health effects.

The O&M Program describes a number of activities that should be avoided in order to prevent a release of asbestos fibers. In particular, you should be aware that some of the activities which may present a health risk include moving, drilling, boring, or otherwise disturbing ACMs. Consequently, such activities should not be attempted by any person not qualified to handle ACMs.

The O&M Program is available for review during regular business hours at Landlord's office located at 700 Technology Square, Suite 302, Cambridge, MA 02139.

EXHIBIT K TO LEASE

AVAILABLE SPACE

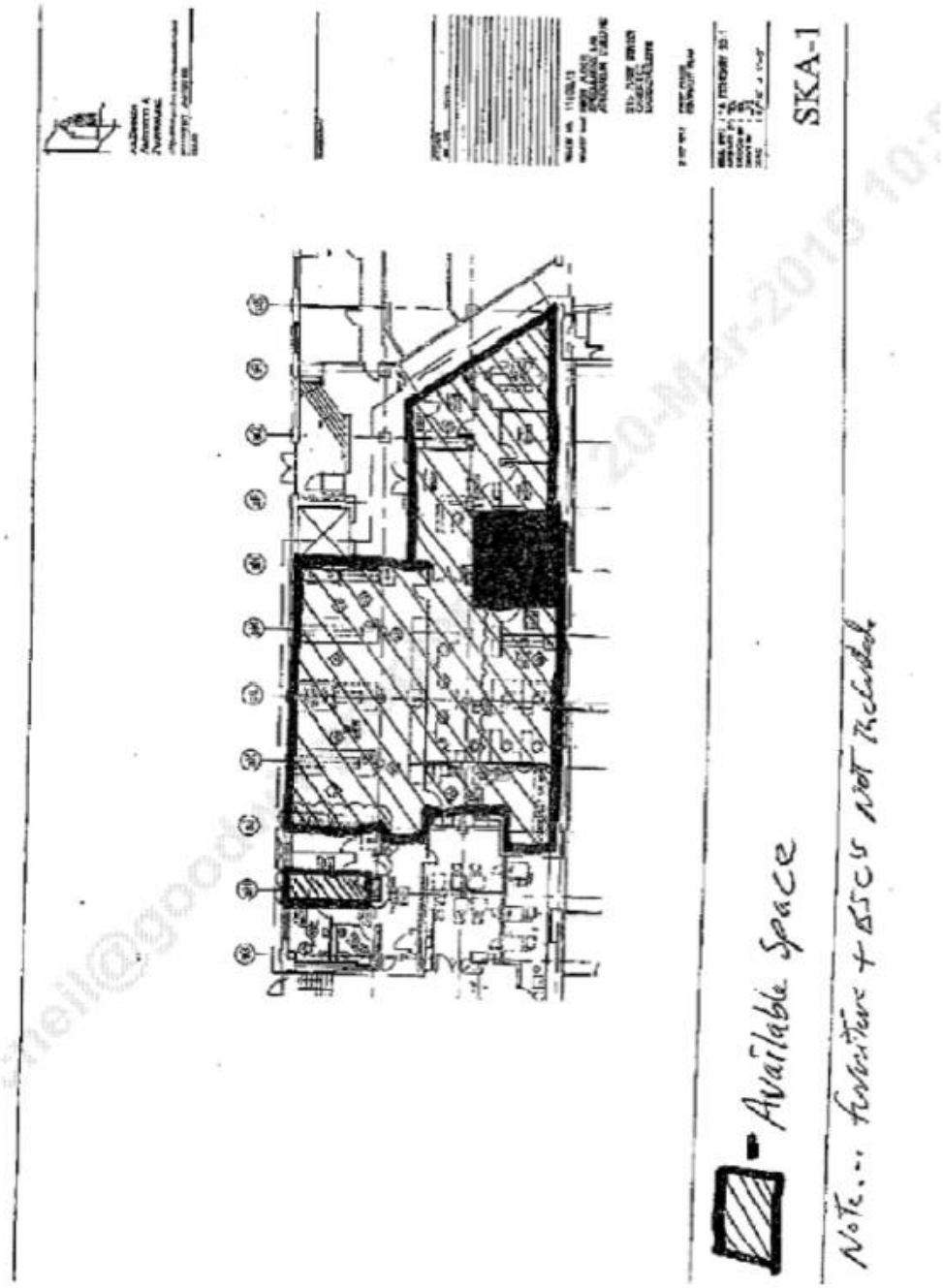


EXHIBIT L

215 First Street 2011 Estimated Oper. & Tax Exp.
Based on 366,719 SF

Real Estate Taxes -	**$**	**4.21**PSF
Building Operating		
Payroll	$	493,500
Insurance	$	44,627
Utilities	$	884,000
Contract Service	$	567,500
Repairs	$	279,500
Admin Exp & MGR Fee	$	30,000
Subtotal	**$**	**2,299,127**
Building Operating Expense -	**$**	**6.27**PSF
Science Area Operating Expenses		
Rentable Square feet		85,069

Added HVAC Equipment Service	$	84,000
Utilities (Natural Gas for Science Area)	$	182,000
Pure Water	$	16,250
Generator Contract	$	2,750
Janitorial	$	10,000
Misc. Contract	$	42,000
Subtotal	**$**	**337,000**
Subtotal Science Area		**3.96**PSF
Total Tax and Operating Expense	**$**	**14.44**PSF

FIRST AMENDMENT TO LEASE

THIS FIRST AMENDMENT TO LEASE (this "**First Amendment**") is made as of September 6, 2011, by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant are parties to that certain Lease Agreement dated as of June 24, 2011 (the "**Lease**"). Pursuant to the Lease, Tenant leases certain premises consisting of approximately 15,392 rentable square feet ("**Original Premises**") in a building located at 215 First Street, Cambridge, Massachusetts. The Original Premises are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. Landlord and Tenant desire, subject to the terms and conditions set forth below, to amend the Lease to, among other things, expand the size of the Premises by adding approximately 5,259 rentable square feet.

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Expansion Premises**. In addition to the Original Premises, commencing on the Expansion Premises Commencement Date (as defined below), Landlord leases to Tenant, and Tenant leases from Landlord, that certain portion of the first floor of the Building consisting of approximately 5,259 rentable square feet, as shown on Exhibit A attached hereto (the "**Expansion Premises**").

2. **Delivery**. The "**Expansion Premises Commencement Date**" shall be October 1, 2011. The "**Expansion Premises Rent Commencement Date**" shall be January 1, 2012. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Expansion Premises Commencement Date and the Expansion Premises Rent Commencement Date in a form substantially similar to the form of the "Acknowledgement of Commencement Date" attached to the Lease as Exhibit G; provided, however, Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder.

Tenant acknowledges that Landlord may require access to portions of the Expansion Premises after the Expansion Premises Commencement Date in order to complete Landlord's Work (as defined in the Work Letter attached to this First Amendment as Exhibit B). Landlord and its contractors and agents shall have the right to enter the Expansion Premises to complete Landlord's Work and Tenant shall cooperate with Landlord in connection with the same. Tenant acknowledges that Landlord's completion of Landlord's Work may adversely affect Tenant's use and occupancy of the Expansion

Premises. Tenant waives ail claims against Landlord in connection with Landlord's Work including, without limitation, claims for rent abatement.

Except as set forth in this First Amendment or in the Expansion Premises Work Letter: (i) Tenant shall accept the Expansion Premises in their condition as of the Expansion Premises Commencement Date, subject to all applicable Legal Requirements; (ii) Landlord shall have no obligation for any defects in the Expansion Premises; and (iii) Tenant's taking possession of the Expansion Premises shall be conclusive evidence that Tenant accepts the Expansion Premises and that the Expansion Premises were in good condition at the time possession was taken.

Tenant agrees and acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Expansion Premises, and/or the suitability of the Expansion Premises for the conduct of Tenant's business, and Tenant waives any implied warranty that the Expansion Premises are suitable for the Permitted Use.

3. **Definition of Premises**. Commencing on the Expansion Premises Commencement Date, the defined term "**Premises**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Premises**: That portion of the Building containing approximately 20,651 rentable square feet, consisting of (i) Suite 340/350, containing approximately 15,392 rentable square feet (the "**Original Premises**"), and (ii) Suite 150 containing approximately 5,259 rentable square feet (the "**Expansion Premises**"), all as determined by Landlord, as shown on Exhibit A. The Original Premises and the Expansion Premises shall be collectively referred to herein as the "**Premises**".

As of the Expansion Premises Commencement Date, Exhibit A to the Lease shall be amended to include the Expansion Premises as shown on Exhibit A attached to this First Amendment.

4. **Base Term**. Commencing on the Expansion Premises Commencement Date, the defined term "**Base Term**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Base Term**: A term beginning (i) with respect to the Original Premises, on the Commencement Date, and (ii) with respect to the Expansion Premises, on the Expansion Premises Commencement Date, and ending with respect to the entire Premises on the date that is 48 months after the later of the Commencement Date or the Expansion Premises Commencement Date."

5. **Base Rent**

(a) **Original Premises**. Tenant shall continue to pay Base Rent for the Original Premises as provided for in the Lease through the through the expiration date of the Lease with respect to the Original Premises.

(b) **Expansion Premises**. Commencing on the Expansion Premises Rent Commencement Date, Tenant shall pay Base Rent for the Expansion Premises in the amount of $47.00 per rentable square foot of the Expansion Premises per year, which shall be payable in advance, without demand, abatement, deduction or set-off, in equal monthly installments on or before the first day of each calendar month during the Term, in lawful money of the United States of America. The "**EP Rent Adjustment Percentage**" shall mean the greater of 4% or the CPI Adjustment Percentage. Base Rent for the Expansion Premises shall be increased on each annual anniversary of the Expansion Premises Commencement Date (each an "**EP Adjustment Date**") by multiplying the Base Rent payable for the Expansion Premises immediately before such EP Adjustment Date by the EP Rent Adjustment Percentage and adding the resulting amount to the Base Rent payable for the Expansion Premises immediately before such Adjustment Date. Base Rent, as so adjusted, shall thereafter be due as provided herein. Base Rent adjustments for any fractional calendar month shall be prorated. "**CPI Adjustment Percentage**" means (i) a fraction, stated as a percentage, the numerator of which shall be the Index for the calendar month 3 months before the month in which the Adjustment Date occurs, and the denominator of which shall be the Index for the calendar month 3 months before the last Adjustment Date or, if no prior Base Rent adjustment has been made, 3 months before the first day of the first full month during the Term of this Lease with respect to the Expansion Premises, less (ii) 1.00. "**Index**" means the "Consumer Price Index-All Urban Consumers-Boston-Brockton-Nashua, MA-NH-ME-CT" compiled by the U.S. Department of Labor, Bureau of Labor Statistics, (1982-84 = 100). If a substantial change is made in the Index, the revised Index shall be used, subject to such adjustments as Landlord may reasonably deem appropriate in order to make the revised Index comparable to the prior Index. If the Bureau of Labor Statistics ceases to publish the Index, then the successor or most nearly comparable index, as reasonably determined by Landlord, shall be used, subject to such adjustments as Landlord may reasonably deem appropriate in order to make the new index comparable to the Index. Landlord shall give Tenant written notice indicating the Base Rent, as adjusted pursuant to this Section, and the method of computation and Tenant shall pay to Landlord an amount equal to any underpayment of Base Rent by Tenant within 15 days of Landlord's notice to Tenant. Failure to deliver such notice shall not reduce, abate, waive or diminish Tenant's obligation to pay the adjusted Base Rent.

Notwithstanding anything to the contrary contained herein, commencing on the Expansion Premises Rent Commencement Date through the expiration of the 6th month after the Expansion Premises Commencement Date ("**EP Base Rent Reduction Period**"), Tenant shall only be required to pay Base Rent with respect to 4,000 rentable square feet of the Expansion Premises. Tenant shall commence paying Base Rent with respect to the entire Expansion Premises on the 1st day of the 7th month following the Expansion Premises Commencement Date. Tenant shall continue to pay Base Rent as required under the Lease with respect to the entire Original Premises throughout the EP Base Rent Reduction Period.

6. **Security Deposit**. Commencing on the date that is 6 months after the date of this First Amendment (the "**Deposit Increase Date**"), the defined term "**Security Deposit**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Security Deposit**: $160,288.00"

On or before the Deposit Increase Date, Tenant shall deliver to Landlord an amended Letter of Credit which increases the amount of the existing Letter of Credit being held by Landlord to $160,288.00 or an additional Letter of Credit in the amount of $41,000.00.

7. **Rentable Area of the Premises**. Commencing on the Expansion Premises Commencement Date, the defined term "**Rentable Area of the Premises**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Rentable Area of the Premises**: 20,651 sq. ft."

8. **Tenant's Share**. Commencing on the Expansion Premises Commencement Date, the defined terms "**Tenant's Share**" and "**Tenant's Percentage Share (Science Facility)**" on page 1 of the Lease are deleted in their entirety and replaced with the following:

Tenant's Share: 5.63%

Tenant's Percentage Share (Science Facility): 24.27%"

9. **Parking**. Notwithstanding anything to the contrary contained in Section 8 of the Lease, commencing on the Expansion Premises Commencement Date, subject to all matters of record, Force Majeure, a casualty or Taking and the exercise by Landlord of its rights under the Lease, Landlord shall make available to Tenant at then-current market rates from time to time a license for 20 parking spaces in the surface parking lots at the Project or at the "Brown Lot" at 100 Binney Street, Cambridge, Massachusetts, all of such parking spaces to be on a non-reserved basis. Any and all references to "15 spaces" or "15 parking spaces" in Section 8 of the Lease shall, as of the Expansion Premises Commencement Date, be deleted and replaced with "20 spaces" or "20 parking spaces," as applicable.

10. **Expansion Right**. Section 36 of the Lease is hereby amended to delete all references to any Available Space on the first floor of the Building. As of the date of this First Amendment, the defined term "**Available Space**" in Section 36(a) of the Lease is hereby deleted and replaced with the following:

"**Available Space"** shall mean those certain portions of third floor of the Project shown on Exhibit K."

Exhibit K of the Lease is hereby amended to delete all references to any Available Space on the first floor of the Project.

11. **Early Termination for Expansion Premises**. Tenant has notified Landlord that there may be one or more entities that (i) are portfolio companies of Third Rock Ventures LLC, a Delaware limited liability company, and (ii) currently lease other space in the Building from Landlord {each, a "**Related TRV Entity**"), that are interested in expanding their premises to include the Expansion Premises and that Tenant desires to terminate the Lease with respect to the Expansion Premises if Landlord enters into a new lease or lease amendment for the Expansion Space ("**New Lease**") with a Related TRV Entity. If, during the Base Term, Landlord enters into a New Lease with a Related TRV Entity pursuant to which such Related TRV Entity agrees to lease the Expansion Space for a term expiring no earlier than September 30, 2015, at a base rental rate of no less than the Base Rent payable by Tenant pursuant to Section 5.b. of this First Amendment plus operating expenses, and, otherwise, upon terms and conditions acceptable to Landlord and such Related TRV Entity in their respective sole discretion, Landlord and Tenant shall enter into an amendment to the Lease, which shall be in a form reasonably acceptable to Landlord and Tenant, providing for the termination of the Lease with respect to the Expansion Premises only upon the date that the Expansion Space become subject to the New Lease. Tenant acknowledges that nothing contained herein shall obligate Landlord in any way to enter into a New Lease.

12. **Brokers**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with the transaction reflected in this First Amendment and that no Broker brought about this transaction, other than Richards Barry Joyce & Partners. Landlord and Tenant each hereby agrees to indemnify and hold the other harmless from and against any claims by any Broker claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.

13. **Miscellaneous**.

(a) This First Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This First Amendment may be amended only by an agreement in writing, signed by the parties hereto.

(b) This First Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective agents, employees, representatives, officers, directors, divisions, subsidiaries, affiliates, assigns, heirs, successors in interest and shareholders.

(c) This First Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this First Amendment attached thereto.

(d) Except as amended and/or modified by this First Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this First Amendment. In the event of any conflict between the provisions of this First Amendment and the provisions of the Lease, the provisions of this First Amendment shall prevail. Whether or not specifically amended by this First Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this First Amendment.

[Signatures are on the next page.]

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment as of the day and year first above written.

TENANT:

BLUEPRINT MEDICINES CORPORATION, a Delaware corporation

By: /s/ Chris Varma
Its: CEO

LANDLORD:

ARE-MA REGION NO. 38, LLC, a Delaware limited liability corporation

By: Alexandria Real Estate Equities, L.P., a Delaware limited partnership, member

By: ARE-QRS Corp., a Maryland corporation, general partner

By: /s/ Eric S. Johnson
Its: Vice President Real Estate Legal Affairs

EXHIBIT A

The Expansion Premises

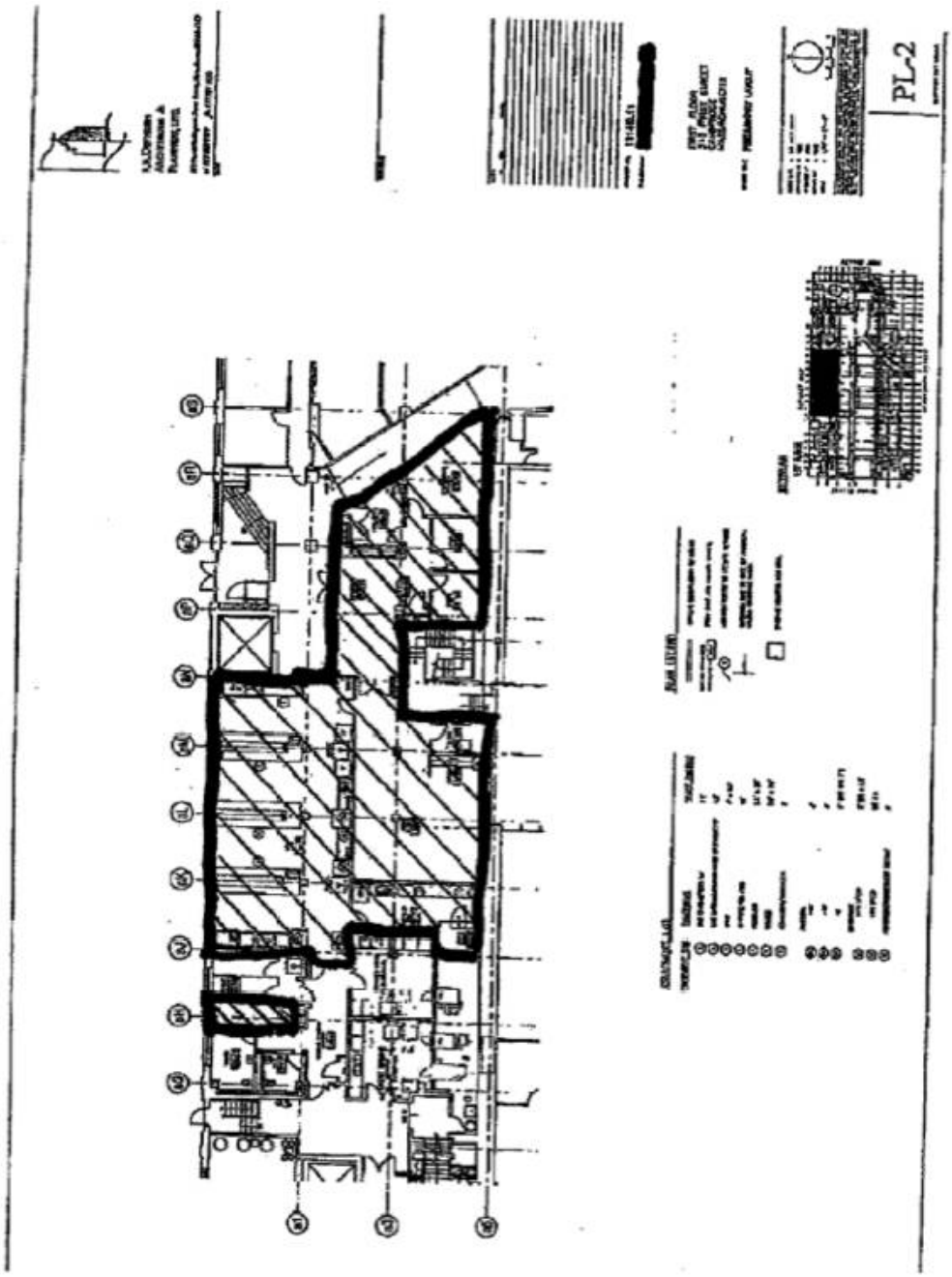


EXHIBIT B

Expansion Premises Work Letter

THIS EXPANSION PREMISES WORK LETTER dated August , 2011 (this "**Expansion Premises Work Letter**") is made and entered into by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of the Lease Agreement dated June 24, 2011, as amended by that certain First Amendment to Lease dated as of August , 2011 (as amended, the "Lease"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

1. **General Requirements**.

(a) **Tenant's Authorized Representative**. Tenant designates Deborah Palestrant and Chris Varma (either such individual acting alone, "**Tenant's Representative**") as the only persons authorized to act for Tenant pursuant to this Expansion Premises Work Letter. Landlord shall not be obligated to respond to or act upon any request, approval, inquiry or other communication ("**Communication**") from or on behalf of Tenant in connection with this Expansion Premises Work Letter unless such Communication is in writing from Tenant's Representative. Tenant may change either Tenant's Representative at any time upon not less than 5 business days advance written notice to Landlord. Neither Tenant nor Tenant's Representative shall be authorized to direct Landlord's contractors in the performance of Landlord's Work (as hereinafter defined).

(b) **Landlord's Authorized Representative**. Landlord designates Jeff McComish and Joseph Maguire (either such individual acting alone, "**Landlord's Representative**") as the only persons authorized to act for Landlord pursuant to this Expansion Premises Work Letter. Tenant shall not be obligated to respond to or act upon any request, approval, inquiry or other Communication from or on behalf of Landlord in connection with this Expansion Premises Work Letter unless such Communication is in writing from Landlord's Representative. Landlord may change either Landlord's Representative at any time upon not less than 5 business days advance written notice to Tenant. Landlord's Representative shall be the sole persons authorized to direct Landlord's contractors in the performance of Landlord's Work.

(c) **Architects, Consultants and Contractors**. Landlord and Tenant hereby acknowledge and agree that: (i) the general contractor and any subcontractors for the Tenant Improvements shall be selected by Landlord, subject to Tenant's approval, which approval shall not be unreasonably withheld, conditioned or delayed, and (ii) R E. Dinneen Architects & Planners, Inc. shall be the architect (the "**Tl Architect**") for the Tenant Improvements.

2. **Tenant Improvements**.

(a) **Tenant Improvements Defined**. As used herein, "**Tenant Improvements**" shall mean all improvements to the Expansion Premises of a fixed and permanent nature as shown on the Tl Construction Drawings, as defined in Section 2(c) below. Other than Landlord's Work (as defined in Section 3(a) below, Landlord shall not have any

obligation whatsoever with respect to the finishing of the Expansion Premises for Tenant's use and occupancy.

(b) Tenant's Space Plans. Tenant shall deliver to Landlord and the Tl Architect schematic drawings and outline specifications (the "**Tl Design Drawings**") detailing Tenant's requirements for the Tenant Improvements within business days of the date hereof. Not more than 10 days thereafter, Landlord shall deliver to Tenant the written objections, questions or comments of Landlord and the Tl Architect with regard to the Tl Design Drawings. Tenant shall cause the Tl Design Drawings to be revised to address such written comments and shall resubmit said drawings to Landlord for approval within business days thereafter. Such process shall continue until Landlord has approved the Tl Design Drawings.

(c) **Working Drawings**. Not later than 10 business days following the approval of the Tl Design Drawings, Landlord shall cause the TI Architect to prepare and deliver to Tenant for review and comment construction plans, specifications and drawings for the Tenant Improvements ("**Tl Construction Drawings**"), which Tl Construction Drawings shall be prepared substantially in accordance with the Tl Design Drawings. Tenant shall be solely responsible for ensuring that the Tl Construction Drawings reflect Tenant's requirements for the Tenant Improvements. Tenant shall deliver its written comments on the Tl Construction Drawings to Landlord not later than 10 business days after Tenant's receipt of the same; provided, however, that Tenant may not disapprove any matter that is consistent with the Tl Design Drawings without submitting a Change Request. Landlord and the Tl Architect shall consider all such comments in good faith and shall, within 10 business days after receipt, notify Tenant how Landlord proposes to respond to such comments, but Tenant's review rights pursuant to the foregoing sentence shall not delay the design or construction schedule for the Tenant Improvements. Any disputes in connection with such comments shall be resolved in accordance with Section 2(d) hereof. Provided that the design reflected in the Tl Construction Drawings is consistent with the Tl Design Drawings, Tenant shall approve the Tl Construction Drawings submitted by Landlord, unless Tenant submits a Change Request Once approved by Tenant, subject to the provisions of Section 4 below, Landlord shall not materially modify the Tl Construction Drawings except as may be reasonably required in connection with the issuance of the Tl Permit (as defined in Section 3(b) below). Landlord shall notify Tenant of any such material modifications as may be reasonably required in connection with the issuance of the Tl Permit.

(d) Approval and Completion. It is hereby acknowledged by Landlord and Tenant that the Tl Construction Drawings must be completed and approved not later than , , in order for the Landlord's Work to be Substantially Complete by the Target Expansion Premises Commencement Date (as defined in the Lease). Upon any dispute regarding the design of the Tenant Improvements, which is not settled within 10 business days after notice of such dispute is delivered by one party to the other, Tenant may make the final decision regarding the design of the Tenant Improvements, provided (i) Tenant acts reasonably and such final decision is either consistent with or a compromise between Landlord's and Tenant's positions with respect to such dispute, (ii) that all costs and expenses resulting from any such decision by Tenant shall be payable out of the Tl Fund (as defined in Section 5(d) below), and (iii) Tenant's decision will not affect the base Building, structural components of the Building or any Building systems. Any changes to the Tl Construction

Drawings following Landlord's and Tenant's approval of same requested by Tenant shall be processed as provided in Section 4 hereof.

3. **Performance of Landlord's Work**.

(a) **Definition of Landlord's Work**. As used herein, "**Landlord's Work**" shall mean the work of constructing the Tenant Improvements.

(b) **Commencement and Permitting**. Landlord shall commence construction of the Tenant Improvements upon obtaining a building permit (the "**Tl Permit**") authorizing the construction of the Tenant Improvements consistent with the Tl Construction Drawings approved by Tenant. The cost of obtaining the Tl Permit shall be payable from the Tl Fund. Tenant shall assist Landlord in obtaining the Tl Permit. If any Governmental Authority having jurisdiction over the construction of Landlord's Work or any portion thereof shall impose terms or conditions upon the construction thereof that: (i) are inconsistent with Landlord's obligations hereunder, (ii) increase the cost of constructing Landlord's Work, or (iii) will materially delay the construction of Landlord's Work, Landlord and Tenant shall reasonably and in good faith seek means by which to mitigate or eliminate any such adverse terms and conditions.

(c) Completion of Landlord's Work. Landlord shall substantially complete or cause to be substantially completed Landlord's Work in a good and workmanlike manner, in accordance with the Tl Permit subject, in each case, to Minor Variations and normal "punch list" items of a non-material nature that do not interfere with the use of the Expansion Premises ("**Substantial Completion**" or "**Substantially Complete**"). Upon Substantial Completion of Landlord's Work, Landlord shall require the Tl Architect and the general contractor to execute and deliver, for the benefit of Tenant and Landlord, a Certificate of Substantial Completion in the form of the American Institute of Architects ("**AIA**") document G704. If required by applicable Legal Requirements, a certificate of occupancy (which may include a conditional certificate of occupancy) for the Tenant Improvements or permission to occupy issued by the appropriate municipal official shall be required for Substantial Completion; provided, however, that no delay on the part of the applicable Governmental Authority or municipal official in the issuance of such certificate of occupancy or permission to occupy, which delay arises from or relates to work by Tenant or its contractors, shall operate to delay Substantial Completion, and any such delay that arises from or relates to work by Tenant or its contractors shall be deemed to be a "Tenant Delay" under Section 3(f) below. If a conditional certificate of occupancy is issued, Landlord agrees to use commercially reasonable efforts to obtain the certificate of occupancy prior to the expiration of the conditional certificate of occupancy or obtain an extension of such conditional certificate of occupancy. For purposes of this Expansion Premises Work Letter, "**Minor Variations**" shall mean any modifications reasonably required: (i) to comply with all applicable Legal Requirements and/or to obtain or to comply with any required permit (including the Tl Permit); (ii) to comply with any request by Tenant for modifications to Landlord's Work; (iii) to comport with good design, engineering, and construction practices that are not material; or (iv) to make reasonable adjustments for field deviations or conditions encountered during the construction of Landlord's Work.

(d) **Selection of Materials**. Where more than one type of material or structure is indicated on the Tl Construction Drawings approved by Landlord and Tenant, the option will be selected at Landlord's sole and absolute subjective discretion. As to all building materials and equipment that Landlord is obligated to supply under this Expansion Premises Work Letter, Landlord shall select the manufacturer thereof in its sole and absolute subjective discretion.

(e) **Delivery of the Expansion Premises**. When Landlord's Work is Substantially Complete, subject to the remaining terms and provisions of this Section 3(e). Tenant shall accept the Expansion Premises. Tenant's taking possession and acceptance of the Expansion Premises shall not constitute a waiver of: (i) any warranty with respect to workmanship (including installation of equipment) or material (exclusive of equipment provided directly by manufacturers), (ii) any non-compliance of Landlord's Work with applicable Legal Requirements, or (iii) any claim that Landlord's Work was not completed substantially in accordance with the Tl Construction Drawings (subject to Minor Variations and such other changes as are permitted hereunder) (collectively, a "**Construction Defect**"). Tenant shall have one year after Substantial Completion within which to notify Landlord of any such Construction Defect discovered by Tenant, and Landlord shall use reasonable efforts to remedy or cause the responsible contractor to remedy any such Construction Defect within 30 days thereafter. Notwithstanding the foregoing, Landlord shall not be in default under the Lease if the applicable contractor, despite Landlord's reasonable efforts, fails to remedy such Construction Defect within such 30-day period, in which case Landlord shall have no further obligation with respect to such Construction Defect other than to cooperate, at no cost to Landlord, with Tenant should Tenant elect to pursue a claim against such contractor, provided that Tenant shall defend with counsel reasonably acceptable to Landlord, indemnify and hold Landlord harmless from and against any claims arising out of or in connection with any such claim.

Tenant shall be entitled to receive the benefit of all construction warranties and manufacturer's equipment warranties relating to equipment installed in the Expansion Premises. If requested by Tenant, Landlord shall attempt to obtain extended warranties from manufacturers and suppliers of such equipment, but the cost of any such extended warranties shall be borne solely out of the Tl Fund. Landlord shall promptly undertake and complete, or cause to be completed, all punch list items.

(f) **Commencement Date Delay**. Except as otherwise provided in the Lease, Delivery of the Expansion Premises shall occur when Landlord's Work has been Substantially Completed, except to the extent that completion of Landlord's Work shall have been actually delayed by any one or more of the following causes ("**Tenant Delay**"):

(i) Tenant's Representative was not available to give or receive any Communication or to take any other action required to be taken by Tenant hereunder;

(ii) Tenant's request for Change Requests (as defined in Section 4(a) below) whether or not any such Change Requests are actually performed;

(iii) Construction of any Change Requests;

(iv) Tenant's request for materials, finishes or installations requiring unusually long lead times;

(v) Tenant's delay in reviewing, revising or approving plans and specifications beyond the periods set forth herein;

(vi) Tenant's delay in providing information critical to the normal progression of the Project. Tenant shall provide such information as soon as reasonably possible, but in no event longer than one week after receipt of any request for such information from Landlord;

(vii) Tenant's delay in making payments to Landlord for Excess Tl Costs (as defined in Section 5(d) below); or

(viii) Any other act or omission by Tenant or any Tenant Party (as defined in the Lease), or persons employed by any of such persons that continues for more that 3 business days after written notice from Landlord.

If Delivery is delayed for any of the foregoing reasons, then Landlord shall cause the Tl Architect to certify the date on which the Tenant Improvements would have been completed but for such Tenant Delay and such certified date shall be the date of Delivery.

4. **Changes**. Any changes requested by Tenant to the Tenant Improvements after the delivery and approval by Landlord of the Space Plan shall be requested and instituted in accordance with the provisions of this Section 4 and shall be subject to the written approval of Landlord and the Tl Architect, such approval not to be unreasonably withheld, conditioned or delayed.

(a) **Tenant's Request For Changes**. If Tenant shall request changes to the Tenant Improvements ("**Changes**"), Tenant shall request such Changes by notifying Landlord in writing in substantially the same form as the AIA standard change order form (a "**Change Request**"), which Change Request shall detail the nature and extent of any such Change. Such Change Request must be signed by Tenant's Representative. Landlord shall, before proceeding with any Change, use commercially reasonable efforts to respond to Tenant as soon as is reasonably possible with an estimate of: (i) the time it will take, and (ii) the architectural and engineering fees and costs that will be incurred, to analyze such Change Request {which costs shall be paid from the Tl Fund to the extent actually incurred, whether or not such change is implemented). Landlord shall thereafter submit to Tenant in writing, within 5 business days of receipt of the Change Request (or such longer period of time as is reasonably required depending on the extent of the Change Request), an analysis of the additional cost or savings involved, including, without limitation, architectural and engineering costs and the period of time, if any, that the Change will extend the date on which Landlord's Work will be Substantially Complete. Any such delay in the completion of Landlord's Work caused by a Change, including any suspension of Landlord's Work while any such Change is being evaluated and/or designed, shall be Tenant Delay.

(b) **Implementation of Changes**. If Tenant: (i) approves in writing the cost or savings and the estimated extension in the time for completion of Landlord's Work, if any, and (ii) deposits with Landlord any Excess Tl Costs required in connection with such Change, Landlord shall cause the approved Change to be instituted. Notwithstanding any approval or disapproval by Tenant of any estimate of the delay caused by such proposed Change, the Tl Architect's determination of the amount of Tenant Delay in connection with such Change shall be final and binding on Landlord and Tenant.

5. **Costs**.

(a) **Budget For Tenant Improvements**. Before the commencement of construction of the Tenant Improvements, Landlord shall obtain a detailed breakdown by trade of the costs incurred or that will be incurred in connection with the design and construction of the Tenant Improvements (the "**Budget**"). The Budget shall be based upon the Tl Construction Drawings approved by Tenant and shall include a payment to Landlord of administrative rent ("**Administrative Rent**") equal to 3% of the Tl Costs for monitoring and inspecting the construction of the Tenant Improvements and Changes, which sum shall be payable from the Tl Fund (as defined in Section 5(d). Administrative Rent shall include, without limitation, all out-of-pocket costs, expenses and fees incurred by or on behalf of Landlord arising from, out of, or in connection with monitoring the construction of the Tenant Improvements and Changes, and shall be payable out of the Tl Fund. If the Budget is greater than the Tl Allowance, Tenant shall deposit with Landlord the difference, in cash, prior to the commencement of construction of the Tenant Improvements or Changes, for disbursement by Landlord as described in Section 5(d).

(b) **Tl Allowance**. Landlord shall provide to Tenant a tenant improvement allowance (the "**Tl Allowance**") of $35.00 per rentable square foot of the Expansion Premises, or 3184,065 in the aggregate. Within 7 business days of receipt of the Budget from Landlord, Tenant shall notify Landlord how much of the Tl Allowance Tenant has elected to receive from Landlord. Such election shall be final and binding on Tenant, and may not thereafter be modified without Landlord's consent, which may be granted or withheld in Landlord's sole and absolute subjective discretion. The Tl Allowance shall be disbursed in accordance with this Expansion Premises Work Letter.

Tenant shall have no right to the use or benefit (including any reduction to or payment of Base Rent) of any portion of the Tl Allowance not required for the construction of (i) the Tenant Improvements described in the Tl Construction Drawings approved pursuant to Section 2(d) or (ii) any Changes pursuant to Section 4.

(c) **Costs Includable in Tl Fund**. The Tl Fund shall be used solely for the payment of design, permits and construction costs in connection with the construction of the Tenant Improvements, including, without limitation, the cost of electrical power and other utilities used in connection with the construction of the Tenant Improvements, the cost of preparing the Space Plan and the Tl Construction Drawings, all costs set forth in the Budget, including Landlord's Administrative Rent, Landlord's out-of-pocket expenses, costs resulting from Tenant Delays and the cost of Changes (collectively, "**Tl Costs**"). Notwithstanding anything to the contrary contained herein, the Tl Fund shall not be used to purchase any furniture, personal property or other non-Building system materials or equipment, including, but

not limited to, Tenant's voice or data cabling, non-ducted biological safety cabinets and other scientific equipment not incorporated into the Tenant Improvements.

(d) **Excess Tl Costs**. Landlord shall have no obligation to bear any portion of the cost of any of the Tenant Improvements except to the extent of the Tl Allowance. If at any time the remaining Tl Costs under the Budget exceed the remaining unexpended Tl Allowance, Tenant shall deposit with Landlord, as a condition precedent to Landlord's obligation to complete the Tenant Improvements, 100% of the then current Tl Cost in excess of the remaining Tl Allowance ("**Excess Tl Costs**"). If Tenant fails to deposit any Excess Tl Costs with Landlord within 10 days after demand from Landlord, Landlord shall have all of the rights and remedies set forth in the Lease for nonpayment of Rent (including, but not limited to, the right to interest at the Default Rate and the right to assess a late charge). For purposes of any litigation instituted with regard to such amounts, those amounts will be deemed Rent under the Lease. The Tl Allowance and Excess Tl Costs are herein referred to as the "**Tl Fund**." Funds deposited by Tenant shall be the first disbursed to pay Tl Costs. Notwithstanding anything to the contrary set forth in this Section 5(d), Tenant shall be fully and solely liable for Tl Costs and the cost of Minor Variations in excess of the Tl Allowance. If upon Substantial Completion of the Tenant Improvements and the payment of all sums due in connection therewith there remains any undisbursed portion of the Tl Fund, Tenant shall be entitled to such undisbursed Tl Fund solely to the extent of any Excess Tl Costs deposit Tenant has actually made with Landlord.

6. **Tenant Access**.

(a) **Tenant's Access Rights**. Landlord hereby agrees to permit Tenant access, at Tenant's sole risk and expense, to the Expansion Premises (i) 7 days prior to the Expansion Premises Commencement Date to perform any work ("**Tenant's Work**") required by Tenant other than Landlord's Work, provided that such Tenant's Work is coordinated with the Tl Architect and the general contractor, and complies with the Lease and all other reasonable restrictions and conditions Landlord may impose, and (ii) prior to the completion of Landlord's Work, to inspect and observe work in process; all such access shall be during normal business hours or at such other times as are reasonably designated by Landlord. Notwithstanding the foregoing, Tenant shall have no right to enter onto the Expansion Premises unless and until Tenant shall deliver to Landlord evidence reasonably satisfactory to Landlord demonstrating that any insurance reasonably required by Landlord in connection with such pre-commencement access (including, but not limited to, any insurance that Landlord may require pursuant to the Lease) is in full force and effect. Any entry by Tenant shall comply with all established safety practices of Landlord's contractor and Landlord until completion of Landlord's Work and acceptance thereof by Tenant.

(b) **No Interference**. Neither Tenant nor any Tenant Party (as defined in the Lease) shall interfere with the performance of Landlord's Work, nor with any inspections or issuance of final approvals by applicable Governmental Authorities, and upon any such interference, Landlord shall have the right to exclude Tenant and any Tenant Party from the Expansion Premises until Substantial Completion of Landlord's Work.

(c) **No Acceptance of Expansion Premises**. The fact that Tenant may, with Landlord's consent, enter into the Project prior to the date Landlord's Work is Substantially Complete for the purpose of performing Tenant's Work shall not be deemed an acceptance by Tenant of possession of the Expansion Premises, but in such event Tenant shall defend with counsel reasonably acceptable by Landlord, indemnify and hold Landlord harmless from and against any loss of or damage to Tenant's property, completed work, fixtures, equipment, materials or merchandise, and from liability for death of, or injury to, any person, caused by the act or omission of Tenant or any Tenant Party.

7. **Miscellaneous**.

(a) **Consents**. Whenever consent or approval of either party is required under this Expansion Premises Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, unless expressly set forth herein to the contrary.

(b) **Modification**. No modification, waiver or amendment of this Expansion Premises Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.

SECOND AMENDMENT TO LEASE

THIS SECOND AMENDMENT TO LEASE (this "**Second Amendment**") is made as of October 25, 2011, by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant are parties to that certain Lease Agreement dated as of June 24, 2011, as amended by that certain First Amendment to Lease dated as of September 6, 2011 ("**First Amendment**") (as amended, the "**Lease**"). Pursuant to the Lease, Tenant leases certain premises consisting of approximately 15,392 rentable square feet ("**Original Premises**") in a building located at 215 First Street, Cambridge, Massachusetts. The Original Premises are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. The First Amendment provided for the expansion of the Original Premises to include the Expansion Premises (as such term is defined in the First Amendment) which Expansion Premises, as of the date of this Second Amendment, has not yet been delivered to Tenant.

C. Tenant no longer desires to expand the Original Premises to include the Expansion Premises.

D. Landlord and Tenant desire, subject to the terms and conditions set forth below, to amend the Lease to, among other things, terminate the First Amendment in order to terminate the lease with respect to the Expansion Premises.

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Termination of First Amendment**. The First Amendment is hereby terminated in its entirety and is of no further force or effect.

Notwithstanding anything to the contrary contained herein, Tenant and Landlord hereby acknowledge and agree that it shall be a condition precedent ("**Condition Precedent**") to the effectiveness of this Second Amendment that Constellation Pharmaceuticals, Inc. ("**Constellation**"), enter into an amendment of its lease at the Building providing for the expansion of Constellation's Premises to include the Expansion Space, which amendment shall be on terms and conditions acceptable to Landlord and Constellation, each in their sole and absolute discretion. Neither Landlord nor Tenant shall have any liability whatsoever to each other relating to or arising from Landlord's inability or failure to cause the Condition Precedent to be satisfied.

2. **Expansion Right**. Section 36 of the Lease is hereby amended to delete all references to any Available Space on the first floor of the Building. As of the date of this Second Amendment, the defined term "**Available Space**" in Section 36(a) of the Lease is hereby deleted and replaced with the following:

"**Available Space**" shall mean those certain portions of third floor of the Project shown on Exhibit K."

Exhibit K of the Lease is hereby amended to delete all references to any Available Space on the first floor of the Project.

3. **Miscellaneous**.

(a) This Second Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This Second Amendment may be amended only by an agreement in writing, signed by the parties hereto.

(b) This Second Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective agents, employees, representatives, officers, directors, divisions, subsidiaries, affiliates, assigns, heirs, successors in interest and shareholders.

(c) This Second Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this Second Amendment attached thereto.

(d) Except as amended and/or modified by this Second Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this Second Amendment. In the event of any conflict between the provisions of this Second Amendment and the provisions of the Lease, the provisions of this Second Amendment shall prevail. Whether or not specifically amended by this Second Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this Second Amendment.

[Signatures are on the next page.]

IN WITNESS WHEREOF, the parties hereto have executed this Second Amendment as of the day and year first above written.

TENANT:

BLUEPRINT MEDICINES CORPORATION, a Delaware corporation

By: /s/ Chris Varma
Its: CEO

LANDLORD:

ARE-MA REGION NO. 38, LLC, a Delaware limited liability corporation

By: Alexandria Real Estate Equities, L.P., a Delaware limited partnership, member

By: ARE-QRS Corp., a Maryland corporation, general partner

By: /s/ Eric S. Johnson
Its: Vice President Real Estate Legal Affairs

THIRD AMENDMENT TO LEASE

THIS THIRD AMENDMENT TO LEASE (this "**Third Amendment**") is made as of March 28, 2014, by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant are parties to that certain Lease Agreement dated as of June 24, 2011, as amended by that certain First Amendment to Lease dated as of September 6, 2011, and as further amended by that certain Second Amendment to Lease dated as of October 25, 2011 (as amended, the "**Lease**"). Pursuant to the Lease, Tenant leases certain premises consisting of approximately 15,392 square feet of Rentable Area ("**Original Premises**") in a building located at 215 First Street, Cambridge, Massachusetts ("**Building**"). The Original Premises are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. Landlord has caused the Project to be re-measured and, pursuant to such re-measurement, determined that the rentable square footage of the Project is equal to 366,723 rentable square feet.

C. Landlord and Tenant desire, subject to the terms and conditions set forth below, to amend the Lease to, among other things, (i) expand the size of the Original Premises by adding approximately 4,422 rentable square feet of space in the Building, and (ii) revise the rentable square footage of the Project as re-measured.

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Expansion Premises**. In addition to the Original Premises, commencing on the Expansion Premises Commencement Date (as defined below), Landlord leases to Tenant, and Tenant leases from Landlord, that certain portion of the Building containing approximately 4,422 rentable square feet, as shown on Exhibit A attached hereto (the "**Expansion Premises**").

2. **Delivery**. Landlord shall use reasonable efforts to deliver possession of the entire Expansion Premises to Tenant on or before the Target Expansion Premises Commencement Date ("**Delivery" or "Deliver**"). If Landlord fails to timely Deliver the Expansion Premises, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and the Lease with respect to the Expansion Premises shall not be void or voidable. Notwithstanding the foregoing, Base Rent for the Expansion Premises only shall be abated 1 day for each day after September 1, 2014 (as such date may be extended by Force Majeure) that Landlord fails to Deliver the Expansion Premises to Tenant.

The "**Expansion Premises Commencement Date**" shall be the date Landlord Delivers the Expansion Premises to Tenant. The "**Target Expansion Premises Commencement Date**" shall be August 1, 2014. Upon the request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Expansion Premises Commencement Date in substantially the form of the "Acknowledgement of Premises Commencement Date" attached to the Lease as Exhibit G; provided, however. Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder.

Except as set forth in this Third Amendment: (i) Tenant shall accept the Expansion Premises in their condition as of the Expansion Premises Commencement Date, subject to all applicable Legal Requirements; (ii) Landlord shall have no obligation for any defects in the Expansion Premises; and (in) Tenant's taking possession of the Expansion Premises shall be conclusive evidence that Tenant accepts the Expansion Premises and that the Expansion Premises were in good condition at the time possession was taken.

Tenant agrees and acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Expansion Premises, and/or the suitability of the Expansion Premises for the conduct of Tenant's business, and Tenant waives any implied warranty that the Expansion Premises are suitable for the Permitted Use.

3. **Definition of Premises**. Commencing on the Expansion Premises Commencement Date, the defined term "**Premises**" on page 1 of the Lease shall be deleted in its entirety and replaced with the following:

"**Premises**: That portion of the Building (as defined below) containing approximately 19,814 rentable square feet, consisting of (i) that portion of the Building commonly known as Suite 340/350, containing approximately 15,392 rentable square feet ("**Original Premises**"), and

(ii) that portion of the Building commonly known as Suite 430, containing approximately 4,422 rentable square feet (the "**Expansion Premises**"), all as determined by Landlord, as shown on Exhibit A."

As of the Expansion Premises Commencement Date, Exhibit A to the Lease shall be amended to include the Expansion Premises as shown on Exhibit A attached to this Third Amendment.

4. **Rentable Area of Premises**. Commencing on the Expansion Premises Commencement Date, the defined term "**Rentable Area of Premises**" on page 1 of the Lease shall be deleted in its entirety and replaced with the following:

"**Rentable Area of Premises**: Approximately 19,814 square feet"

5. **Rentable Area of Project**. Commencing on the date of this Third Amendment, the defined term "**Rentable Area of Project**" on page 1 of the Lease shall be deleted in its entirety and replaced with the following:

"**Rentable Area of Project**: 366,723 square feet"

6. **Base Rent**.

(a) **Original Premises**. Tenant shall continue to pay Base Rent for the Original Premises as provided for in the Lease.

(b) **Expansion Premises**. Commencing on the Expansion Premises Commencement Date, Tenant shall pay Base Rent for the Expansion Premises at the rate of $52.00 per rentable square foot of the Expansion Premises per annum. Base Rent payable for the Expansion Premises shall be increased on each annual anniversary of the first day of the first full month following the Expansion Premises Commencement Date (each, an "**Expansion Premises Adjustment Date**") by multiplying the Base Rent payable with respect to the Expansion Premises immediately before such Expansion Premises Adjustment Date by the Rent Adjustment Percentage and adding the resulting amount to the Base Rent payable with respect to the Expansion Premises immediately before Expansion Premises Adjustment Date.

7. **Tenant's Share**. Commencing on the Expansion Premises Commencement Date, the defined terms "**Tenant's Share**" and "**Tenant's Percentage Share (Science Facility)**" on page 1 of the Lease shall be deleted in their entirety and replaced with the following:

"**Tenant's Share**: 5.41%

"**Tenant's Percentage Share (Science Facility)**: 23.18%"

8. **Base Term**. Commencing on the Expansion Premises Commencement Date, the defined term "**Base Term**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Base Term**: Commencing (i) with respect to the Original Premises on the Commencement Date, and (ii) with respect to the Expansion Premises on the Expansion Premises Commencement Date, and ending with respect to the entire Premises on October 31, 2015."

9. **Parking**. In addition to the parking spaces made available to Tenant pursuant to Section 8 of the Lease, Landlord shall make available to Tenant at the then-current market rates from time to time, subject to the terms of Section 8 of the Lease, a license for an additional 4 parking spaces in the surface parking lots at the Project or at the "Brown Lot" at 100 Binney Street, Cambridge, Massachusetts ("**Expansion Premises Parking Spaces**"), all of such Expansion Premises Parking Spaces to be on a non-reserved basis; provided, however, that Tenant shall be required to pay for the number of Expansion Premises Parking Spaces that Tenant elects to license pursuant to this Section 8 (not to exceed 4 parking spaces). As of the Expansion Premises Commencement Date, the market parking rate for the Expansion Premises Parking Spaces in such surface lots is $250 per Expansion Premises Parking Space per month. Tenant shall notify Landlord prior to the Expansion Premises Commencement Date how many Expansion Premises Parking Spaces (not to exceed 4) that Tenant will license hereunder. If Tenant does not elect to license all 4 of the Expansion Premises Parking Spaces pursuant to the immediately preceding sentence, the Expansion Premises Parking Spaces that Tenant

elects not to use shall no longer be available for use by Tenant at any time during the Term and Tenant shall be deemed to waive its right to license any such remaining Expansion Premises Parking Spaces. Landlord shall not be responsible for enforcing Tenant's parking rights against any third parties, including without limitation other tenants of the Project. Landlord shall have the right, exercisable by the delivery of a Landlord's Relocation Notice (as defined in Section 8 of the Lease), given at any time during the Term, to relocate all or a portion of the Expansion Premises Parking Spaces elected by Tenant to be licensed hereunder to another location within a 7-minute walk of the Building; provided, however, that if the relocated parking set forth in Landlord's Relocation Notice is not within a 4-minute walk of the Building, Tenant may elect not to accept the relocated Expansion Premises Parking Spaces by written notice to Landlord given within 30 days of the date of Landlord's Relocation Notice. If Tenant notifies Landlord within such 30-day period that Tenant elects not to accept such relocated Expansion Premises Parking Spaces, then Tenant's parking rights hereunder shall terminate and be void as of the date set forth in Landlord's Relocation Notice as the effective date for such relocation and Tenant shall as of such effective date no longer have the obligation to pay the parking rates for such Expansion Premises Parking Spaces. If Tenant fails to notify Landlord within such 30-day period that Tenant elects not to accept such relocated Expansion Premises Parking Spaces, then Tenant's rights and obligations under this Section 9 shall apply to the relocated Expansion Premises Parking Spaces as of the effective date set forth in the Landlord's Relocation Notice.

10. **Asbestos**.

(a) **Notification of Asbestos**. Landlord hereby notifies Tenant of the presence of asbestos-containing materials ("**ACMs**") and/or presumed asbestos-containing materials ("**PACMs**") within or about the Premises in the location identified in Exhibit B attached to this Third Amendment.

(b) **Tenant Acknowledgement**. Tenant hereby acknowledges receipt of the notification in paragraph (a) of this Section 10 and understands that the purpose of such notification is to make Tenant and any agents, employees, and contractors of Tenant, aware of the presence of ACMs and/or PACMs

within or about the Building in order to avoid or minimize any damage to or disturbance of such ACMs and/or PACMs.

Tenant's Initials

(c) **Acknowledgement from Contractors/Employees**. Tenant shall give Landlord at least 14 days' prior written notice before conducting, authorizing or permitting any of the activities listed below within or about the Premises, and before soliciting bids from any person to perform such services. Such notice shall identify or describe the proposed scope, location, date and time of such activities and the name, address and telephone number of each person who may be conducting such activities. Thereafter, Tenant shall grant Landlord reasonable access to the Premises to determine whether any ACMs or PACMs will be disturbed in connection with such activities. Tenant shall not solicit bids from any person for the performance of such activities without Landlord's prior written

approval. Upon Landlord's request, Tenant shall deliver to Landlord a copy of a signed acknowledgement from any contractor, agent, or employee of Tenant acknowledging receipt of information describing the presence of ACMs and/or PACMs within or about the Premises in the locations identified in Exhibit B prior to the commencement of such activities. Nothing in this Section 10 shall be deemed to expand Tenant's rights under the Lease or otherwise to conduct, authorize or permit any such activities.

(i) Removal of thermal system insulation ("**TSI**") and surfacing ACMs and PACMs (i.e., sprayed-on or troweled-on material, e.g., textured ceiling paint or fireproofing material);

(ii) Removal of ACMs or PACMs that are not TSI or surfacing ACMs or PACMs; or

(iii) Repair and maintenance of operations that are likely to disturb ACMs or PACMs.

11. **Brokers**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with the transaction reflected in this Third Amendment and that no Broker brought about this transaction, other than Cushman & Wakefield and Transwestern/RBJ. Landlord and Tenant each hereby agrees to indemnify and hold the other harmless from and against any claims by any Broker claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.

12. **Right to Extend Term**. For the avoidance of doubt, Tenant Extension Right pursuant to Section 35 of the Lease shall apply to both the Original Premises and the Expansion Premises and, if exercised by Tenant pursuant to the terms of Section 35, must be exercised with respect to the entire Premises.

13. **Right of First Refusal**. Section 36 of the Lease is hereby deleted in its entirety and is null and void and of no further force or effect.

14. **Miscellaneous**

(a) This Third Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This Third Amendment may be amended only by an agreement in writing, signed by the parties hereto.

(b) This Third Amendment is binding upon and shall inure to the benefit of the parties hereto, and their respective successors and assigns.

(c) This Third Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having

additional signature pages executed by other parties to this Third Amendment attached thereto.

(d) Except as amended and/or modified by this Third Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this Third Amendment. In the event of any conflict between the provisions of this Third Amendment and the provisions of the Lease, the provisions of this Third Amendment shall prevail. Whether or not specifically amended by this Third Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this Third Amendment.

[Signatures are on the next page.]

IN WITNESS WHEREOF, the parties hereto have executed this Third Amendment as of the day and year first above written.

TENANT:

BLUEPRINT MEDICINES CORPORATION, a Delaware corporation

By: /s/ Alexis Borisy
Its:

Interim President & CEO

LANDLORD:

ARE-MA REGION NO. 38, LLC, a Delaware limited liability corporation

By: Alexandria Real Estate Equities, L.P., a Delaware limited partnership, member

By: ARE-QRS Corp., a Maryland corporation, general partner

By: /s/ Eric S. Johnson
Its: Vice President Real Estate Legal Affairs

EXHIBIT A

The Expansion Premises

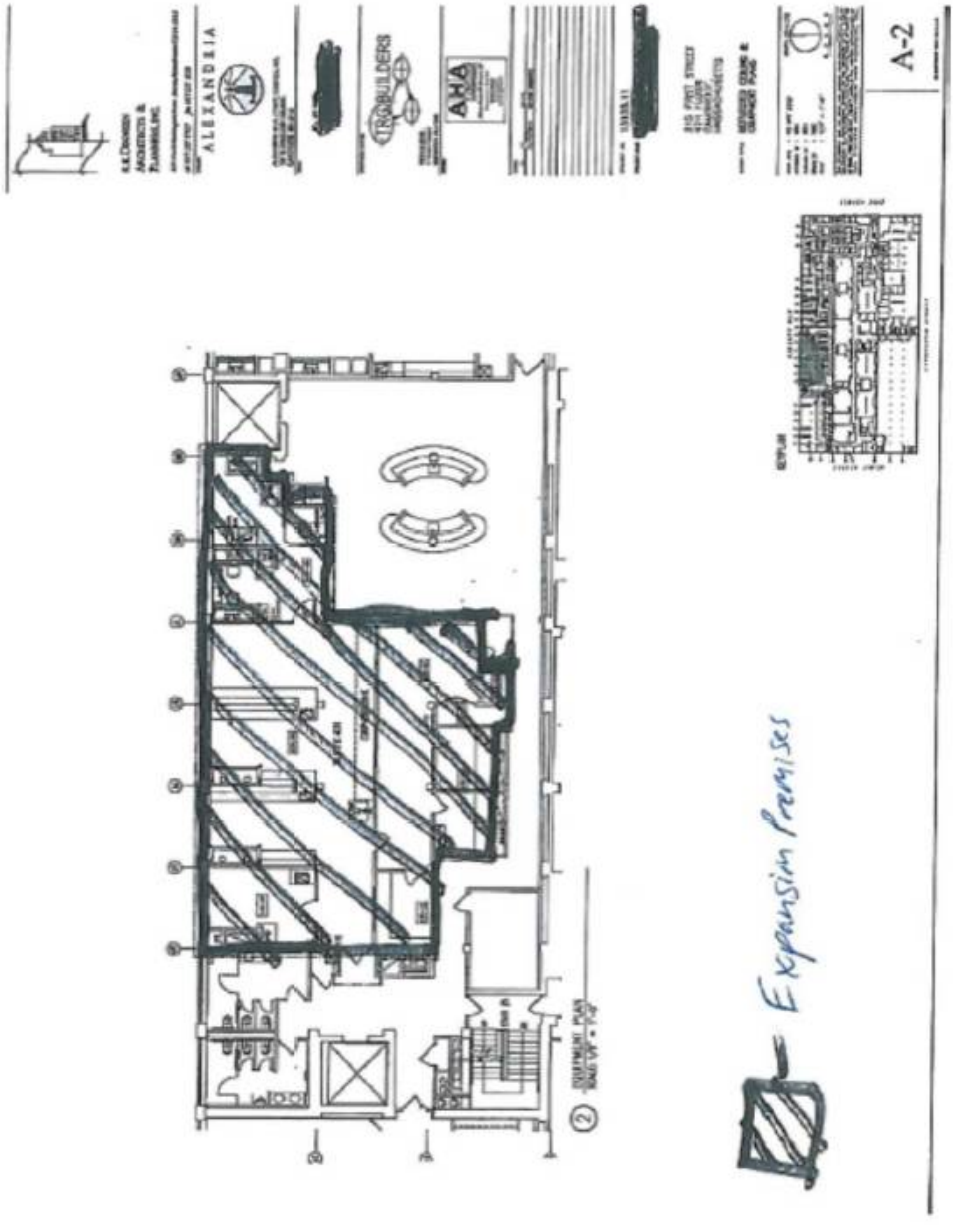


EXHIBIT B

Asbestos Disclosure

This notification provides certain information about asbestos within or about the Premises at 215 First Street, Cambridge, MA ("**Building**").

Historically, asbestos was commonly used in building products used in the construction of buildings across the country. Asbestos-containing building products were used because they are fire-resistant and provide good noise and temperature insulation. Because of their prevalence, asbestos-containing materials, or ACMs, are still sometimes found in buildings today.

No ACMs were identified in an asbestos survey of the building conducted in 2007. However, to avoid damage, several materials were not sampled and are presumed asbestos-containing materials or PACMs as listed in the following table:

Material Description	Material Location
Ceramic tile adhesive and grout	Throughout restrooms; ground floor hallways; first floor lobby and hallways
Built-up roofing beneath rubber	Throughout roof
Flashing cement	Roof
Flex connectors on HVAC units	Roof

The PACMs described above were observed to be in good condition and may be managed in place. Because ACMs may be present within or about the Building, we have hired an independent environmental consulting firm to prepare an operations and maintenance program ("**O&M Program**"). The O&M Program is designed to minimize the potential of any harmful asbestos exposure to any person within or about the Building. The O&M Program includes a description of work methods to be taken in order to maintain any ACMs or PACMs within or about the Building in good condition and to prevent any significant disturbance of such ACMs or PACMs. Appropriate personnel receive regular periodic training on how to properly administer the O&M Program.

The O&M Program describes the risks associated with asbestos exposure and how to prevent such exposure through appropriate work practices. ACMs and PACMs generally are not thought to be a threat to human health unless asbestos fibers are released into the air and inhaled. This does not typically occur unless (1) the ACMs are in a deteriorating condition, or (2) the ACMs have been significantly disturbed {such as through abrasive cleaning, or maintenance or renovation activities), If inhaled, asbestos fibers can accumulate in the lungs and, as exposure increases, the risk of disease (such as asbestosis or cancer) increases. However, measures to minimize exposure, and consequently minimize the accumulation of asbestos fibers, reduce the risks of adverse health effects.

The O&M Program describes a number of activities that should be avoided in order to prevent a release of asbestos fibers. In particular, you should be aware that some of the activities which may present a health risk include moving, drilling, boring, or otherwise disturbing ACMs. Consequently, such activities should not be attempted by any person not qualified to handle ACMs.

The O&M Program is available for review during regular business hours at Landlord's office located at 400 Technology Square, Suite 101, Cambridge, MA 02139.

Exhibit 10.4

EXECUTION COPY

LEASE FOR

38 SIDNEY STREET

Cambridge, Massachusetts

LANDLORD

THIRTY-EIGHT SIDNEY STREET LIMITED PARTNERSHIP

TENANT

BLUEPRINT MEDICINES CORPORATION

38 SIDNEY STREET

Table of Contents

LEASE

ARTICLE I

RECITALS AND DEFINITIONS

Section 1.1 - Recitals.

This Lease (the "Lease") is entered into as of June 15, 2015, by and between THIRTY-EIGHT SIDNEY STREET LIMITED PARTNERSHIP, a Delaware limited partnership (me "Landlord") and BLUEPRINT MEDICINES CORPORATION, a Delaware corporation ("Tenant").

In consideration of the mutual covenants herein set forth, the Landlord and the Tenant do hereby agree to the terms and conditions set forth in this Lease.

Section 1.2 - Definitions.

The following terms shall have the meanings indicated or referred to below:

"Additional Rent" means all charges payable by the Tenant pursuant to this Lease other than Annual Fixed Rent, including without implied limitation the Tenant's parking charges as provided in Section 2.4; the Tenant's Tax Expense Allocable to the Premises as provided in Section 3.2; the Tenant's Operating Expenses Allocable to the Premises in accordance with Section 3.3; amounts payable for special services pursuant to Section 3.5; the Landlord's share of any sublease or assignment proceeds pursuant to Section 6.8.

"Annual Fixed Rent" - See Exhibit A, and Section 3.1.

"Building" means that certain five-story, 121,622 rentable square foot building located at 38 Sidney Street, Cambridge, Massachusetts in which the Premises are located.

"Commencement Date" - See Section 2.5.

"Common Building Areas" means those portions of the Building which are not part of the Premises and to which the Tenant has appurtenant rights pursuant to Section 2.2.

"External Causes" means collectively, (i) Acts of God, war, civil commotion, fire, flood or other casualty, strikes or other extraordinary labor difficulties, shortages of labor or materials or equipment in the ordinary course of trade, government order or regulations or other cause not reasonably within the Landlord's or Tenant's control and not due to the fault or neglect of the Landlord or Tenant.

"Lease Year" means each period of one year during the Term commencing on the Commencement Date or on any anniversary thereof.

"Permitted Uses" - See Exhibit A.

"Premises" means approximately 38,536 rentable square feet representing approximately 25,363 rsf on the second floor of the Building, and 13,173 rsf on the third (3rd) floor of the Building, as defined in Exhibit A. See Exhibit A, Exhibit B and Section 2.1.

"Property" means, collectively, the Building and the parcel of land on which the Building sits.

"Term"-See Exhibit A.

"University Park" means the area in Cambridge, Massachusetts, bounded on the North side by Massachusetts Avenue and Green Street, on the East side by Landsdowne, Cross and Purrington Streets, on the South side by Pacific Street and on the West side by Brookline Street.

ARTICLE II

PREMISES, PARKING AND OTHER RIGHTS

Section 2.1 - Premises.

The Landlord hereby leases to the Tenant, and the Tenant hereby leases from the Landlord, for the Term, the Premises. The Premises shall exclude the entry and main lobby of the Building, first floor elevator lobby, first floor mail room, the common stairways and stairwells, elevators and elevator wells, boiler room, sprinklers, sprinkler rooms, elevator rooms, mechanical rooms, loading and receiving areas, electric and telephone closets, janitor closets, loading docks and bays, rooftop mechanical penthouses to the extent they house Building equipment, and pipes, ducts, conduits, wires and appurtenant fixtures and equipment serving exclusively or in common other parts of the Building. If the Premises at any time includes less than the entire rentable floor area of any floor of the Building, the Premises shall also exclude the common corridors, vestibules, elevator lobby and toilets located on such floor. The Tenant acknowledges that, except as expressly set forth in this Lease, there have been no representations or warranties made by or on behalf of the Landlord with respect to the Premises, the Building or the Property or with respect to the suitability of any of them for the conduct of the Tenant's business. Tenant acknowledges that, except as expressly set forth in this Lease, it is accepting the Premises in its present "as-is" condition with no expectation that Landlord will or should perform or contribute toward the cost of any leasehold improvements required to prepare the Premises for Tenant's occupancy, except as provided otherwise herein. Provided, however, prior to the Commencement Date, Landlord shall be responsible, at its sole cost and expense, to (i) deliver the base building mechanical systems (HVAC, electrical, life safety, plumbing) and the laboratory systems that exclusively service the Premises (specifically the central vacuum, compressed air, RODI and acid neutralization systems) (collectively, the "Laboratory Systems"), and the Kohler gas fired 100KW emergency generator that exclusively serves the Premises (the "Emergency Generator") in good operating condition and repair; (ii) decommission the Premises, and (iii) provide HVAC infrastructure that will accommodate Tenant's needs for 12-15 air changes per hour for all lab spaces currently located in the Premises. All of Landlord's obligation in this Section 2.1 shall be referred to collectively as the "Landlord's Work".

Section 2.2 - Appurtenant Rights.

The Tenant shall have, as appurtenant to the Premises, the nonexclusive right to use in common with others, subject to reasonable rules of general applicability to occupants of the Building from time to time made by the Landlord of which the Tenant is given notice: (i) the entry, vestibules and main lobby of the Building, first floor mailroom, the common stairways, elevators, elevator wells, boiler room, elevator rooms, sprinkler rooms, mechanical rooms, electric and telephone closets, janitor closets, loading docks and bays, rooftop mechanical penthouses and shafts to the extent they house Building equipment, and the pipes,

sprinklers, ducts, conduits, wires and appurtenant fixtures and equipment serving the Premises in common with others, (ii) common walkways and driveways necessary or reasonably convenient for access to the Building, (iii) access to loading area and freight elevator subject to Rules and Regulations then in effect, and (iv) if the Premises at any time include less than the entire rentable floor area of any floor, the common toilets, corridors, vestibules, and elevator lobby of such floor. Tenant shall have 24 hour, seven day per week access to the Premises, freight loading docks and freight elevators, subject to the provisions of this Lease and interruption for External Causes, casualty and condemnation. Landlord shall provide Tenant with access cards for after-hours access.

Additionally, the Tenant shall have, as appurtenant to the Premises (and exclusively for use in connection with the occupancy of the Premises), the nonexclusive right of access to and proportionate use of the roof for the purpose of installing and maintaining mechanical equipment, antennae and dishes which, in each case, have been pre-approved by the Landlord, subject however, to reasonable rules of general applicability to occupants of the Building from time to time made by the Landlord of which the Tenant is given notice, but only to the extent that the Tenant has assumed responsibility for maintenance and repair thereof. Tenant shall be allocated its proportionate share of available roof and penthouse area for its equipment. Tenant shall be responsible for all costs relating to the installation, maintenance, and removal of said rooftop and penthouse equipment at the expiration or earlier termination of the Term.

Section 2.3 - Landlord's Reservations.

(a) The Landlord reserves the right from time to time, without unreasonable interference with the Tenant's use and with written notice to Tenant, except in emergencies (including the specialized needs of Tenant's operations which Landlord hereby acknowledges): (i) to install, use, maintain, repair, replace and relocate for service to the Premises and other parts of the Building, or either, pipes, ducts, conduits, wires and appurtenant fixtures and equipment, wherever located in the Premises or the Building, provided that the usable area of the Premises is not materially reduced, and (ii) to alter or relocate any other common facility, provided that substitutions are substantially equivalent or better for Tenant's use of the Premises consistent with the Permitted Uses.

(b) Tenant acknowledges that the Park is comprised of several buildings, including the Building and both life science/office buildings ("Commercial Buildings") and residential buildings ("Residential Buildings"), together with common and publicly accessible landscaped areas, service drives, and sidewalks. Landlord has established a common scheme for the operation and maintenance of the Park to which this Lease and the other leases of space in the Park are subject pursuant to a legal instrument entitled the "Declaration of Covenants," provided, however, that the terms and conditions of the Declaration of Covenants shall not diminish in any material and adverse manner any of Tenant's rights and benefits with respect to the Premises, or materially and adversely increase any of Tenant's obligations. Each Commercial Building, and certain of the Residential Buildings, are subject to the Declaration of Covenants, and contribute to the costs and expenses to be shared thereunder. However, Landlord and Tenant recognize that Residential Buildings may not contribute to such costs and expenses, and therefore, it is agreed that allocation of costs and expenses payable under the Declaration of Covenants among the building owners, the Building's allocable share of which are Operating Expenses under this Lease, shall be based on an aggregation of all such costs and expenses, less whatever contributions can be collected from the Residential Buildings, and allocated to the Building based on a numerator comprised of the total rentable area of the Building, and the denominator of which is the total rentable area of all of the Commercial Buildings in existence from time to time, or by such other method as Landlord may reasonably determine.

Section 2.4 - Parking.

The Landlord shall provide and the Tenant shall pay for parking privileges for use by the Tenant's employees, business invitees and visitors in accordance with Exhibit A. The Landlord shall operate, or cause to be operated, a parking garage known as the 80 Landsdowne Street Garage (the "Garage") to serve the Building and other buildings in University Park. The Tenant's parking privileges shall be located in the Garage and shall be on a nonexclusive basis (i.e., no reserved spaces); provided, however,

Landlord agrees that the Garage shall be operated so as to maintain therein sufficient spaces to accommodate Tenant's parking privileges described in Exhibit A. However, in the event the Garage requires maintenance, Landlord reserves the right to temporarily relocate some or all of Tenant's parking spaces to Landlord's parking facilities located at 55 Franklin Street, or 30 Pilgrim Street, both in Cambridge, Massachusetts, upon reasonable prior notice to Tenant from Landlord until such reasonable period of time as the maintenance or repairs are complete. Landlord shall diligently and timely perform the maintenance and repairs in a reasonable manner. All monthly users will have unlimited access to the Garage twenty-four (24) hours per day, seven days per week. Additional parking passes may be provided to Tenant on a month-to-month basis, as available.

The Tenant agrees that it and all persons claiming by, through and under it, shall at all times abide by the reasonable rules and regulations promulgated by the Landlord, of which Tenant is given notice, with respect to the use of the parking facilities provided by the Landlord pursuant to this Lease. If there are any conflicts between the provisions of such rules and regulations and any provisions of this Lease, the provisions of this Lease shall govern.

Charges for Tenant's parking privileges hereunder shall be at current monthly parking rates (which rates shall be consistent with market parking rates in parking facilities of comparable quality at mixed use office/research parks in East Cambridge/Kendall Square/Cambridgeport), and shall constitute Additional Rent and shall be payable monthly to Landlord at the time and in the fashion in which Annual Fixed Rent under this Lease is payable.

At any time during the Term Landlord shall have the right to assign Landlord's obligations to provide parking, as herein set forth, together with Landlord's right to receive Additional Rent for such parking spaces as herein provided, to a separate entity created for the purpose of providing the parking privileges set forth herein. In such event, Landlord and Tenant agree to execute and deliver appropriate documentation, including documentation with the new entity, reasonably necessary to provide for the new entity to assume Landlord's obligations to provide the parking privileges to Tenant as specified herein and for the Tenant to pay the Additional Rent attributable to the parking privileges directly to the new entity. Landlord shall, however, remain primarily liable for the provision of Tenant's parking privileges.

Section 2.5 - Commencement Date; Rent Commencement Date.

"Commencement Date" as defined in Exhibit A. The "Rent Commencement Date" as defined in Exhibit A; provided, however, that the Rent Commencement Date shall be delayed on a day for day basis for every day from and after June 15, 2015 that the Premises have not been delivered after such date with Landlord's Work complete.

Section 2.6 - Extension Option.

Provided that there has been no Event of Default which is uncured and continuing on the part of the Tenant, and that Tenant is, as of the date of exercise of its rights under this Section 2.6, in occupancy of at least seventy (70%) of the Premises for its own business purposes, the Tenant shall have the right to extend the Term hereof for one (1) period of five (5) years (the "Extension Term") on the following terms and conditions:

(a) Such right to extend die Term shall be exercised by the giving of notice by Tenant to Landlord at least twelve (12) months prior to the expiration of the Initial Term (the "Extension Notice Deadline Date"). Upon the giving of such notice on or before the Extension Notice Deadline Date, this Lease and the Term hereof shall be extended for the additional term, as specified above, without the necessity for the execution of any additional documents except a document memorializing the Annual Fixed Rent for the applicable Extension Term to be determined as set forth below; provided, however,

that failure of the parties to execute such a document shall not invalidate the exercise of the extension option. Time shall be of the essence with respect to the Tenant's giving notice to extend the Term on or before the Extension Notice Deadline Date. In no event may the Tenant extend the Term under this Section 2.6 for more than five (5) years after the expiration of the Initial Term, unless Landlord and Tenant shall mutually agree to such an extension.

(b) The Extension Term shall be upon all the terms, conditions and provisions of this Lease, except the Annual Fixed Rent during such Extension Term shall be the then Extension Rental Value of the Premises for such Extension Term, to be determined under this Section 2.6.

(c) For purposes of the Extension Term described in this Section 2.6, the Extension Fair Rental Value of the Premises shall mean the then current fair market annual rent for leases of other space in die Kendall Square/East Cambridge/Cambridgeport submarkets of a comparable nature and quality similarly improved, taking into account the condition to which such premises have been improved (excluding Removable Alterations) and the economic terms and conditions specified in this Lease that will be applicable thereto, including the savings, if any, due to the absence or reduction of brokerage commissions. The Landlord and Tenant shall endeavor to agree upon the Extension Fair Rental Value of the Premises within thirty (30) days after the Tenant has exercised the option for the Extension Term. If the Extension Fair Rental Value of the Premises is not agreed upon by the Landlord and the Tenant within this time frame, each of the Landlord and the Tenant shall retain a real estate professional with at least ten (10) years continuous experience in the business of appraising or marketing similar commercial real estate in the Cambridge, Massachusetts area who shall, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value. The Landlord and the Tenant shall simultaneously exchange such reports; provided, however, if either party has not obtained such a report as of the last day of the thirty (30) day period referred to above in this Section 2.6, then the determination set forth in the other party's report shall be final and binding upon the parties. If both parties receive reports within such time and the lower determination is within ten percent (10%) of the higher determination, then the average of these determinations shall be deemed to be the Extension Fair Rental Value for the Premises. If these determinations differ by more than ten percent (10%), then the Landlord and the Tenant shall mutually select a person with the qualifications stated above (the "Final Professional") to resolve the dispute as to the Extension Fair Rental Value for the Premises. If the Landlord and the Tenant cannot agree upon the designation of the Final Professional within ten (10) days of the exchange of the first valuation reports, either party may apply to the American Arbitration Association, the Greater Boston Real Estate Board, or any successor thereto, for the designation of a Final Professional. Within ten (10) days of the selection of the Final Professional, the Landlord and the Tenant shall each submit to the Final Professional a copy of their respective real estate professional's determination of the Extension Fair Rental Value for the Premises. The Final Professional shall then, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value (the "Final Professional's Valuation"), which shall be a selection of either Landlord's or Tenant's determination and shall not be a separate valuation. The Final Professional shall give notice of the Final Professional's Valuation to the Landlord and the Tenant and such decision shall be final and binding upon the Landlord and the Tenant. In the event that the commencement of the Extension Term occurs prior to a final determination of the Extension Fair Rental Value therefor (the "Extension Rent Determination Date"), then the Tenant shall pay the Annual Fixed Rental at the greater of (i) the rate specified by the Landlord in its proposed Extension Fair Rental Value or (ii) the then applicable Fixed Rental Rate (such greater amount being referred to as the "Interim Rent"). If the Annual Fixed Rent as finally determined for such Extension Term is determined to be greater than the Interim Rent, then the Tenant shall pay to the Landlord the amount of the underpayment for the period from the end of the Initial Term of this Lease until the Extension Rent Determination Date within thirty (30) days of the Extension Rent Determination Date. If the Annual Fixed Rent as finally determined for the Extension Term is determined to be less than the Interim Rent, then the Landlord shall credit the amount

of such overpayment against the monthly installments of Annual Fixed Rent coming due after the Extension Rent Determination Date.

ARTICLE III

RENT AND OTHER PAYMENTS

Section 3.1 - Annual Fixed Rent.

From and after the Rent Commencement Date (as defined in Exhibit A), the Tenant shall pay, without notice or demand, monthly installments of one-twelfth (1/12th) of the Annual Fixed Rent in effect and applicable to the Premises in advance for each full calendar month of the Term following the Rent Commencement Date and of the corresponding fraction of said one-twelfth (1/12th) for any fraction of a calendar month at the Rent Commencement Date or end of the Term. The Annual Fixed Rent applicable to the Premises during the Term shall be as set forth in Exhibit A.

On the first anniversary of the Rent Commencement Date, and on each anniversary thereafter, Annual Fixed Rent for the Premises shall increase to an amount equal to one hundred three percent (103%) of the Annual Fixed Rent immediately preceding such anniversary.

Section 3.2 - Real Estate Taxes.

From and after the Rent Commencement Date, during the Term, the Tenant shall pay to the Landlord, as Additional Rent, the Tenant's Tax Expenses Allocable to the Premises (as such term is hereinafter defined) in accordance with this Section 3.2. The terms used in this Section 3.2 are defined as follows:

(a) "Tax Year" means the 12-month period beginning July 1 each year or if the appropriate governmental tax fiscal period shall begin on any date oilier than July 1, such other date.

(b) "The Tenant's Tax Expense Allocable to the Premises" means that portion of the Landlord's Tax Expenses for a Tax Year which bears the same proportion thereto as the Rentable Floor Area of the Premises bears to the Total Rentable Floor Area of the Building, provided that, in the event that the Premises are improved to a standard which is higher than other portions of the Property and the Property is re-assessed at a higher value as a result, as expressly indicated in the documentation from the assessor, Tenant shall also be responsible to pay such portion of the Real Estate Taxes on the Property with respect to any Tax Year as is appropriate so that the Tenant bears the portion of the Real Estate Taxes which are properly allocable to the Premises, as reasonably determined by Landlord using good faith commercially reasonable judgment based on assessment values and other information with respect to the Premises and the Building made available by the assessing authorities (Landlord's determination of such allocation shall take into account the rate of appreciation, if any, of real property in the City of Cambridge from the date of the prior assessment to the date of the new assessment, and the portion of any increased assessment on the Property which is allocable to any such general increase in the value of the real property in the City of Cambridge shall not be allocated disproportionately to Tenant).

(c) "The Landlord's Tax Expenses" with respect to any Tax Year means the aggregate Real Estate Taxes on the Property with respect to that Tax Year, reduced by any abatement receipts with respect to that Tax Year.

(d) "Real Estate Taxes" means (i) all real property taxes and special assessments of every kind and nature assessed by any governmental authority on the applicable property, but excluding any income taxes payable by Landlord as a result of payments made to Landlord by Tenant or any other tenant at the Property; and (ii) reasonable expenses of any proceedings for abatement of such taxes or special assessments. Any special assessments to be included within the definition of "Real Estate Taxes" shall be limited to the amount of the installment (plus any interest thereon) of such special tax or special assessment (which shall be payable over the longest period permitted by law) required to be paid during the Tax Year in respect of which such taxes are being determined. There shall be excluded from such taxes all income, estate, succession, inheritance, excess profit, franchise and transfer taxes; provided, however, that if at any time during the Term the present system of ad valorem taxation of real property shall be changed so that in lieu of the whole or any part of the ad valorem tax on real property, there shall be assessed on the Landlord a capital levy or other tax on the gross rents received with respect to the Property, or a federal, state, county, municipal or other local income, franchise, excise or similar tax, assessment, levy or charge (distinct from any now in effect) based, in whole or in part, upon any such gross rents, then any and all of such taxes, assessments, levies or charges, to the extent so based, shall be deemed to be included within the term "Real Estate Taxes."

Payments by the Tenant on account of the Tenant's Tax Expenses Allocable to the Premises shall be made monthly at the time and in the fashion herein provided for the payment of Annual Fixed Rent and shall be in an amount of the greater of (i) one-twelfth (l/12th) of the Tenant's Tax Expenses Allocable to the Premises for the current Tax Year as reasonably estimated by the Landlord, or (ii) an amount reasonably estimated by any ground lessor of the Land or holder of a first mortgage on the Property, to be sufficient, if paid monthly, to pay the Landlord's Tax Expenses on the dates due to the taxing authority.

Not later than ninety (90) days after the Landlord's Tax Expenses are determinable for the first Tax Year of the Term or fraction thereof and for each succeeding Tax Year or fraction thereof during the Term, the Landlord shall render the Tenant a statement in reasonable detail showing for the preceding year or fraction thereof, as the case may be, real estate taxes on the Property, and any abatements or refunds of such taxes. Expenses incurred in obtaining any tax abatement or refund may be charged against such tax abatement or refund before the adjustments are made for the Tax Year. If at the time such statement is rendered it is determined with respect to any Tax Year, that the Tenant has paid (i) less than the Tenant's Tax Expenses Allocable to the Premises or (ii) more than the Tenant's Tax Expenses Allocable to the Premises, then, in the case of (i) the Tenant shall pay to the Landlord, as Additional Rent, within thirty (30) days of such statement the amount of such underpayment and, in the case of (ii) the Landlord shall credit the amount of such overpayment against the monthly installments of the Tenant's Tax Expenses Allocable to the Premises next thereafter coming due (or refund such overpayment within thirty (30) days if the Term has expired and the Tenant has no further obligation to the Landlord).

To the extent that real estate taxes shall be payable to the taxing authority in installments with respect to periods less than a Tax Year, the statement to be furnished by the Landlord shall be rendered and payments made on account of such installments. Notwithstanding the foregoing provisions, no decrease in Landlord's Tax Expenses with respect to any Tax Year shall result in a reduction of the amount otherwise payable by Tenant if and to the extent said decrease is attributable to vacancies in the Building, rather than to a reduction in the assessed value of the Property as a whole or a reduction in the tax rate. Landlord shall, upon Tenant's request therefor, provide Tenant with copies of all applicable tax bills, statements, records and the like, as well as copies of Landlord's calculations and all other relevant information.

Section 3.3 - Operating Expenses.

From and after the Rent Commencement Date, during the Term the Tenant shall pay to the Landlord, as Additional Rent, the Tenant's Operating Expenses Allocable to the Premises, as hereinafter defined, in accordance with this Section 3.3. The terms used in this Section 3.3 are defined as follows:

(a) "The Tenant's Operating Expenses Allocable to the Premises" means that portion of the Operating Expenses for the Property which bears the same proportion thereto as the Rentable Floor Area of the Premises bears to the Total Rentable Floor Area of the Building.

(b) "Operating Expenses for the Property" means Landlord's reasonable cost of operating, cleaning, maintaining and repairing the Property, and shall include without limitation, the cost of services on Exhibit C; premiums for insurance carried pursuant to Section 7.4; the amount deductible from any insurance claim actually made by Landlord during the time period in question (which amount is currently $50,000.00, and which amount may be increased during the Term and any Extension Term provided such increase is reasonable and customary); reasonable compensation and all fringe benefits, worker's compensation insurance premiums and payroll taxes paid to, for or with respect to all persons (University Park/Building general manager and below, provided that such charges shall be prorated to reflect the percentage of rentable square feet of the Building as compared to all of the commercial rentable square feet at University Park) directly engaged in the operating, maintaining or cleaning of the Property; interior landscaping and maintenance; steam, water, sewer, gas, oil, electricity, telephone and other utility charges (excluding such utility charges either separately metered or separately chargeable to tenants for additional or special services and those charges related to the cost of operating base Building equipment not used by Tenant, cost of providing conditioned water for HVAC services; cost of building and cleaning supplies; the costs of routine environmental management programs operated by Landlord; market rental costs for equipment used in the operating, cleaning, maintaining or repairing of the Property, or the applicable fair market rental charges in the case of

equipment owned by the Landlord; cost of cleaning; cost of maintenance, repairs and replacements; cost of snow removal; cost of landscape maintenance; security services; payments under service contracts with independent contractors; management fees at market rates; the cost of any capital improvement either required by law or regulation first in effect after the Commencement Date of this Lease or which reduces the Operating Expenses for the Property or which improves the management and operation of the Property in a manner acceptable to Tenant, which cost shall be amortized in accordance with generally accepted accounting principles over the useful life of such item, together with interest on the unamortized balance calculated at the rate from time to time announced by Bank of America, NA. as its prime rate; charges reasonably allocated to the Building for the operating, cleaning, maintaining and repairing of University Park common areas and amenities; and all other reasonable and necessary expenses paid in connection with the operation, cleaning, maintenance and repair of the Property. If, for any reason portions of the Rentable Area of the Building not included in the Premises were not occupied by tenants or the Landlord was not supplying all tenants with the services being supplied under the Lease or any tenants in the Building were supplied with a lesser level of standard services than those supplied to the Tenant under this Lease, Landlord's Operating Expenses for the Property shall include the amounts reasonably determined by Landlord which would have been incurred if ninety-five percent (95%) of the rentable area in the Building were occupied and were

supplied with the same level of standard services as supplied to the Tenant under this Lease.

Operating Expenses for the Property shall not include the following: the Landlord's Tax Expense; cost of repairs or replacements (i) resulting from eminent domain takings, (ii) to the extent reimbursed by insurance, or (iii) required, above and beyond ordinary periodic maintenance, to maintain in serviceable condition the major structural elements of the Building, including the roof, exterior walls and floor slabs; replacement or contingency reserves; ground lease rents or payment of debt obligations; costs incurred due to negligent acts or omissions of Landlord, Landlord's agents, contractors or employees, or any other tenant of the Building; legal and other professional fees for matters not relating to the normal administration and operation of the Property; promotional, advertising, public relations or brokerage fees and commissions paid in connection with services rendered for securing or renewing leases; lease up and tenant improvement costs for space other than the Premises in the Building; costs of capital improvements not permitted hereinabove; expenses incurred in the maintenance, repair and operation of the Garage; legal expenses relating to other tenants; interest and all other payments made upon loans to Landlord or secured by a mortgage or deed of trust covering the Property or a portion thereof; salaries of employees and officers of Landlord above the level of general manager or comparable; depreciation; specific costs incurred for the account of, or separately billed to and paid by specific tenants of University Park; the cost of any work or services performed for any other property other than University Park; any cost included in Operating Expenses representing an amount paid to a person, firm, corporation or other entity related to Landlord which is in excess of the amount which would have been paid on an arms-length basis in the absence of such relationship; costs and expenses to clean up or remediate Hazardous Materials; and separately metered or sub metered utilities for other tenants in the Building. The Landlord's Operating Expenses shall be reduced by the amount of any proceeds, payments, credits or reimbursements which the Landlord receives from sources other than tenants and which are applicable to such Operating Expenses for the Property.

Payments by the Tenant for its share of the Operating Expenses for the Property shall be made in monthly installments of one-twelfth (1/12) of Tenant's share of Operating Expenses. The amount so to be paid to the Landlord shall be an amount from time to time reasonably estimated by the Landlord to be sufficient to aggregate a sum equal to the Tenant's share of the Operating Expenses for the Property for each calendar year.

Not later than ninety (90) days after the end of each calendar year or fraction thereof during the Term or fraction thereof at the end of the Term, the Landlord shall render the Tenant a statement in reasonable detail and according to usual accounting practices certified by a representative of the Landlord, showing for the preceding calendar year or fraction thereof, as the case may be, the Operating Expenses for the Property and the Tenant's Operating Expenses Allocable to the Premises. Said statement to be rendered to the Tenant also shall show for the preceding calendar year or fraction thereof, as the case may be, the amounts of Operating Expenses already paid by the Tenant. If at the time such statement is rendered it is determined with respect to any calendar year, that the Tenant has paid (i) less than the Tenant's Operating Expenses Allocable to the Premises or (ii) more than the Tenant's Operating Expenses Allocable to the Premises, then, in the case of (i) the Tenant shall pay to the Landlord, as Additional Rent, within thirty (30) days of such statement the amounts of such underpayment and, in the case of (ii) the Landlord shall credit the amount of such overpayment against the monthly installments of the Tenant's Operating Expenses Allocable to the Premises next thereafter coming due (or refund such overpayment within thirty (30) days if the Term has expired and the Tenant has no further obligation to the Landlord).

Tenant may, after ten (10) days' prior written notice to Landlord given within ninety (90) days of Landlord's delivery to Tenant of a statement of Operating Expenses for the Property, during Landlord's

regular business hours and at Tenant's sole cost and expense, inspect Landlord's books and records relating to Operating Expenses for the Property. Such books and records shall be made available at the Property unless such books and records are regularly kept at Landlord's corporate offices in Cleveland, Ohio, in which case they will be made available for Tenant's inspection in Cleveland, Ohio. Tenant shall keep all information relating to Operating Expenses for the Property strictly confidential and shall in no event, whatsoever, disclose such information to any third party other than to Tenant's attorneys and accountants in connection with proceedings concerning this Lease. Landlord's statement shall by notice of Tenant to Landlord given within thirty (30) days of the expiration of the aforesaid one hundred twenty (120) day period, be subject to Expedited Dispute Resolution, as set forth on Exhibit H hereto. If it is determined that Landlord's statement has overstated the Operating Expenses for the Property for any calendar year by more than five percent (5%) then Landlord shall reimburse Tenant for its reasonable audit costs incurred in connection with this paragraph. If Landlord's statement is determined not to have overstated Operating Expenses for the Property, Tenant shall reimburse Landlord for its reasonable audit costs incurred in connection with this paragraph.

Section 3.4 - Other Utility Charges.

During the Term, the Tenant shall pay directly to the provider of the service all separately metered charges for gas and electricity furnished to the Premises, and shall pay to Landlord as Additional Rent its pro rata share of water and sewer which shall be prorated to reflect Tenant's proportional usage based upon Tenant's proportional occupancy of the Building. Landlord acknowledges that all other tenant spaces in the Building are separately metered.

Section 3.5 - Above-standard Services.

If the Tenant requests and the Landlord elects to provide any services to the Tenant in addition to those described in Exhibit C, the Tenant shall pay to the Landlord, as Additional Rent, the amount billed by Landlord for such services at Landlord's standard rates as from time to time in effect. If the Tenant has requested that such services be provided on a regular basis, the Tenant shall, if requested by the Landlord, pay for such services at the time and in the fashion in

which Annual Fixed Rent under this Lease is payable. Otherwise, the Tenant shall pay for such additional services within thirty (30) days after receipt of an invoice from the Landlord. Landlord shall have the right from time to time to inspect Tenant's utility meters and to install timers thereon at Tenant's expense for purposes of monitoring above-standard service usage. Tenant shall pay for such work within thirty (30) days after receipt of an invoice from Landlord.

Section 3.6 - No Offsets.

Annual Fixed Rent and Additional Rent shall be paid by the Tenant without offset, abatement or deduction except as provided herein.

Section 3.7 - Net Lease.

It is understood and agreed that this Lease is a net lease and that the Annual Fixed Rent is absolutely net to the Landlord excepting only the Landlord's obligations to pay any debt service or ground rent on the Property, to provide the Landlord's services, and to pay the real estate taxes and operating expenses which the Tenant is not required to pay under this Lease.

ARTICLE IV

ALTERATIONS

Section 4.1 - Consent Required for Tenant's Alterations.

The Tenant shall not make alterations or additions to the Premises except in accordance with (i) reasonable construction rules and regulations from time to time promulgated by Landlord and applicable to Tenants in the Building (a current copy of which is attached hereto as Exhibit F), and (ii) plans and specifications therefor first approved by the Landlord, which approval shall not be unreasonably withheld, conditioned or delayed. In addition, Tenant may make non-structural alterations affecting only the interior of the Premises, and not adversely affecting building systems, costing less than $50,000.00 in any one instance (or in the aggregate with respect to related alterations) without Landlord's prior written consent, but subject to the other terms of this Lease and provided that Tenant provides notice of such alterations within a reasonable time after the completion of the same. The Landlord shall not be deemed unreasonable for withholding approval of any alterations or additions which (i) will affect any structural or exterior element of the Building, any area or element outside of the Premises, or any ' facility serving any area of the Building outside of the Premises or any publicly accessible major interior features of the Building, (ii) constitute non-standard office/laboratory improvements and will require significant expense to readapt the Premises to substantially the same condition of the Premises as of the date hereof unless the Tenant first gives assurance acceptable to the Landlord that such readaptation will be made prior to such termination without expense to the Landlord, or (iii) which would not be compatible with existing mechanical or electrical, plumbing, HVAC or other systems in the Building, in each case, as reasonably determined by the Landlord. Landlord will not charge Tenant any coordination, overhead or contractor supervision fees. However, Landlord shall be reimbursed for any third-party, out-of-pocket expenses incurred by Landlord in connection with the review and approval of Tenant's plans, specifications, improvements and construction.

Section 4.2 - Ownership of Alterations.

All alterations and additions shall be part of the Building and owned by the Landlord. With respect to alterations and additions requiring prior notice to Landlord and the consent of Landlord, if Tenant fails to inform Landlord (as and to the extent required under this Lease) at least ten (10) days prior to the installation of the alteration or addition, thereby preventing Landlord from making a determination as to whether it will want such addition or alteration removed from the Premises prior to its installation, then Landlord may require such removal without exception. Otherwise, additions and alterations made by Tenant may be surrendered upon the expiration of the Term unless Landlord requires removal by notice to Tenant at the time Landlord approves such additions and alterations. All movable trade fixtures and furnishings not attached to the Premises shall remain the property of the Tenant and shall be removed by the Tenant upon termination or expiration of this Lease. The Tenant shall repair any damage caused by the removal of any alterations, additions or personal property from the Premises, including the Removable Equipment (as defined below). Landlord and Tenant agree that prior to the Rent Commencement Date, Tenant shall provide a list to Landlord of equipment that Tenant has attached to the walls or floors of the Premises, and/or hard-wired or plumbed to the electrical, plumbing or mechanical systems of the Premises, together with evidence indicating that such equipment was not purchased with the Leasehold Improvements Allowance (the "Removable Equipment"). Notwithstanding the foregoing provisions of this Section 4.2, Tenant shall be permitted to remove the Removable Equipment from the Premises at the end of the Term, provided that such Removable Equipment shall be removed by Tenant with reasonable care and diligence, including the capping off of all utility connections behind the adjacent interior finish, and the restoration of such interior finish to the extent necessary so that the Premises are left with complete wall, ceiling and floor finishes.

Section 4.3 - Construction Requirements for Alterations.

All construction work by the Tenant shall be done in a good and workmanlike manner employing only first-class materials and in compliance with Landlord's reasonable construction rules and regulations and with all applicable laws and all lawful ordinances, regulations and orders of Governmental authority and insurers of the Building. The Landlord or Landlord's authorized agent may (but without any implied obligation to do so) inspect the work of the Tenant at reasonable times with prior notice to Tenant and shall give notice of observed defects. All of the Tenant's alterations and additions and installation of furnishings shall be coordinated with any work being performed by the Landlord and in such manner as to maintain harmonious labor relations and not to damage the Building or interfere with Building construction or operation and, except for installation of furnishings, shall be performed by contractors or workmen first approved by the Landlord, which approval the Landlord agrees not to unreasonably withhold, condition or delay (Landlord shall provide its written consent or written notice of its reason for withholding consent within ten (10) days of any request for consent from Tenant). The Tenant, before starting any work, shall receive and comply with Landlord's construction rules and regulations applicable to all tenants in the Building and shall cause Tenant's contractors to comply therewith, shall secure all licenses and permits necessary therefor and shall deliver to the Landlord a statement of the names of all its contractors and subcontractors performing work with a value in excess of $50,000 and the estimated cost of all labor and material to be furnished by them and security satisfactory to the Landlord protecting the Landlord against liens arising out of the furnishing of such labor and material; and cause each contractor engaged to perform work to carry worker's compensation insurance in statutory amounts covering all the contractors' and subcontractors' employees and comprehensive general public liability insurance with limits of $1,000,000 (individual)/$3,000,000 (occurrence), or in such lesser amounts as Landlord may accept, covering personal injury and death and property damage (all such insurance to be written in companies approved reasonably by the Landlord and insuring the Landlord, such individuals and entities affiliated with the Landlord as the Landlord may designate, and the Tenant as well as the contractors and to contain a requirement for at least thirty (30) days' notice to the Landlord prior to cancellation, nonrenewal or material change), and to deliver to the Landlord certificates of all such insurance.

Section 4.4 - Payment for Tenant Alterations.

Except as otherwise set forth herein, Tenant agrees to pay promptly when due the entire cost of any work done on the Premises by the Tenant, its agents, employees or independent contractors, and not to cause or permit any liens for labor or materials performed or furnished in connection therewith to attach to the Premises or the Property and promptly to discharge any such liens which may so attach. If any such lien shall be filed against the Premises or the Property and the Tenant shall fail to cause such lien to be discharged within ten (10) business days after the filing thereof, the Landlord may cause such lien to be discharged by payment, bond or otherwise without investigation as to the validity thereof or as to any offsets or defenses which the Tenant may have with respect to the amount claimed. The Tenant shall reimburse the Landlord, as Additional Rent, for any cost so incurred and shall indemnify and hold harmless the Landlord from and against any and all claims, costs, damages, liabilities and expenses (including reasonable attorneys' fees) which may be incurred or suffered by the Landlord by reason of any such lien or its discharge.

Section 4.5 - Leasehold Improvements Allowance and Base Building Allowance.

In connection with Tenant's execution of this Lease, Tenant shall perform certain improvements to the Premises, as mutually agreed upon by Landlord and Tenant (the "Improvements"). Tenant acknowledges and agrees that the Improvements shall include (but shall not be limited to) the creation of laboratory space with supporting office space. Landlord shall provide to Tenant the Leasehold

Improvements Allowance set forth in Exhibit A, which shall be paid and used in accordance with the provisions of the Work Letter attached to this Lease as Exhibit E. Landlord shall also provide to Tenant the Base Building Allowance set forth in Exhibit A, which shall be paid and used only in accordance with the provisions of the Work Letter attached to this Lease as Exhibit E.

ARTICLE V

RESPONSIBILITY FOR CONDITION OF BUILDING AND PREMISES

Section 5.1 - Maintenance of Building and Common Areas by Landlord.

Except as otherwise provided in Article VIII, the Landlord shall make such repairs to the major structural elements of the Building, including the roof, exterior walls and floor slabs as may be necessary to keep and maintain the same in good condition and maintain and make such repairs to the Common Building Areas as may be necessary to keep them in good order, condition and repair, including without limitation, the glass in the exterior walls of the Building, and all mechanical systems and equipment serving the Building and not exclusively serving the Premises. The Landlord shall further perform the services on Exhibit C hereto. The Landlord shall in no event be responsible to the Tenant for any condition in the Premises or the Building caused by an act or neglect of the Tenant, or any invitee or contractor of the Tenant. Provided that Tenant performs the maintenance obligations set forth in Section 5.2 below, Landlord shall be responsible for any capital replacements. Landlord's costs in performing such services and the expense associated with such capital replacements shall be reimbursed by the Tenant to the extent provided in Section 3.3. Except as specifically set forth herein, Tenant accepts the Premises in its as-is condition.

Section 5.2 - Maintenance of Premises by Tenant.

The Tenant shall keep neat and clean and maintain in good order, condition and repair the Premises and every part thereof and all Building and mechanical equipment exclusively serving the Premises, reasonable wear and tear excepted and further excepting those repairs for which the Landlord is responsible pursuant to Section 5.1 and damage by fire or other casualty and as a consequence of the exercise of the power of eminent domain, and shall surrender the Premises and all alterations and additions thereto, at the end of the Term, in such condition, first removing all goods and effects of the Tenant and, to the extent specified by the Landlord by notice to the Tenant, all alterations and additions made by the Tenant, which Tenant has not elected to retain in accordance with the terms of Sections 4.2 and 5.2, and repairing any damage caused by such removal and restoring the Premises and leaving them clean and neat. The Tenant shall not permit or commit any waste, and the Tenant shall be responsible for the cost of repairs which may be made necessary by reason of damages to common areas in the Building by the Tenant, or any of the contractors or invitees of the Tenant. Mechanical, HVAC, the Laboratory Systems and the Emergency Generator shall be maintained in good order, condition and repair. Tenant shall, upon request, provide evidence reasonably satisfactory to Landlord that it has available the necessary expertise to properly conduct and carry out this responsibility, either through persons employed by the Tenant or through contracts with independent service organizations, or a combination thereof. All charges incurred by Landlord in connection with such work, whether by independent organizations or in accordance with reasonable rates assigned to employees of Landlord or Landlord's affiliates, shall be promptly reimbursed by Tenant as Additional Rent.

Section 5.3 - Delays in Landlord's Services.

The Landlord shall not be liable to the Tenant for any compensation or reduction of rent by reason of inconvenience or annoyance or for loss of business arising from the necessity of the Landlord or

its agents entering the Premises for any purposes authorized in this Lease, or for repairing the Premises or any portion of the Building. In case the Landlord is prevented or delayed from making any repairs, alterations or improvements, or furnishing any services or performing any other covenant or duty to be performed on the Landlord's part, by reason of any External Cause, the Landlord shall not be liable to the Tenant therefor, nor, except as expressly otherwise provided in this Lease, shall the Tenant be entitled to any abatement or reduction of rent by reason thereof, nor shall the same give rise to a claim in the Tenant's favor that such failure constitutes actual or constructive, total or partial, eviction from the Premises.

The Landlord reserves the right to stop any service or utility system when necessary by reason of accident or emergency, until necessary repairs have been completed; provided, however, that in each instance of stoppage, the Landlord shall exercise reasonable diligence to eliminate the cause thereof. Except in case of emergency repairs, the Landlord will give the Tenant reasonable advance written notice of any contemplated stoppage and will use reasonable efforts to avoid unnecessary inconvenience to the Tenant by reason thereof. In no event shall the Landlord have any liability to the Tenant for the unavailability of heat, light or any utility or service to be provided by the Landlord to the extent that such unavailability is caused by External Causes, provided, however, that the Landlord is obligated to exercise reasonable efforts to restore such services or utility systems' operation as soon as possible.

Notwithstanding anything contained herein to the contrary, in the event Landlord shall fail to provide the services it is required to provide to Tenant hereunder for any reason other than due to Tenant's acts or omissions, and as a result thereof, Tenant is reasonably unable to use or conduct its operations on part or all of the Premises, Tenant shall be entitled to (i) proportionate abatement of rent (including but not limited to abatement of Tenant's Tax Expenses and Tenant's Operating Expenses) for the period Tenant is reasonably unable to use or conduct its operations on part or all of the Premises, or (ii) terminate this Lease if Landlord is unable to restore such services within three (3) months from the date of interruption. Tenant shall have the right to terminate this Lease as aforesaid by written notice to Landlord at any time after the expiration of such three (3) month period, and such termination shall be effective as of the date of the interruption in service. To the extent any such unavailability is caused primarily by the action or inaction of Landlord, it's servants, agents, employees, contractors, licensees, invitees or any persons claiming by, through or under Landlord, and (i) Landlord fails to commence commercially reasonable corrective action within ten (10) days after Tenant notifies Landlord of such unavailability, or (ii) Landlord, upon commencing commercially reasonable corrective action within ten (10) days after Tenant notifies Landlord of such unavailability, fails to restore the services within thirty (30) days after Tenant notifies Landlord of such unavailability, Tenant shall have the right to restore such service at Landlord's cost and expense.

ARTICLE VI

TENANT COVENANTS

The Tenant covenants during the Term and for such further time as the Tenant occupies any part of the Premises:

Section 6.1 - Permitted Uses.

The Tenant shall occupy the Premises only for the Permitted Uses, which include, but are not limited to, general business and administrative offices, laboratory and biotechnology research and development, animal experimentation and related activities thereto. The Tenant shall not injure or deface the Premises or the Property, nor permit in the Premises any auction sale. The Tenant shall give written notice to the Landlord of any materials on OSHA's right to know list or which are subject to regulation by

any other federal, state, municipal or other governmental authority and which the Tenant intends to have present at the Premises. The Tenant shall comply with all requirements of public authorities and of the Board of Fire Underwriters in connection with methods of storage, use and disposal thereof. The Tenant shall not permit in the Premises any nuisance, or the emission from the Premises of any objectionable noise, odor or vibration, nor use or devote the Premises or any part thereof for any purpose which is contrary to law or ordinance or liable to invalidate or increase premiums for any insurance on the Building or its contents or liable to render necessary any alteration or addition to the Building, nor commit or permit any waste in or with respect to the Premises, nor generate, store or dispose of any oil, toxic substances, hazardous wastes, or hazardous materials (each a, "Hazardous Material"), or permit the same in or on the Premises or any parking areas provided for under this Lease, unless first giving Landlord notice thereof. The Tenant shall not dump, flush or in any way introduce any Hazardous Materials into septic, sewage or other waste disposal systems serving the Premises or any parking areas provided for under this Lease, except as specifically permitted by government license or permit. The Tenant will indemnify the Landlord and its successors and assigns against all claims, loss, cost, and expenses including attorneys' fees, incurred as a result of any contamination of the Building or any other portion of University Park with Hazardous Materials by the Tenant or Tenant's contractors, licensees, invitees, agents, servants or employees. Tenant shall provide to Landlord herewith copies of all licenses and permits Tenant has been required to obtain prior to handling any such Hazardous Materials. Tenant shall further provide to Landlord evidence satisfactory to Landlord from Tenant's consultant preparing any regulatory filings for licensing or permitting to handle Hazardous Materials setting forth in reasonable detail all licenses and/or permits that Tenant is required to obtain or will obtain prior to the Commencement Date and that such licenses and/or permits are valid and in full force and effect. Tenant shall have received all such licenses and/or permits prior to commencement of its operations in the Premises. From time to time hereafter upon thirty (30) days advance notice from Landlord, Tenant will provide Landlord with such updated provisions of Sections 6.1 and 6.2 as the Landlord may reasonably request. Upon request by the Landlord, Tenant shall immediately remove any material or substances which are not in compliance with this Section 6.1. The Landlord represents and warrants to the Tenant that, to the best of Landlord's knowledge, the Permitted Uses are in compliance with all current land use and zoning restrictions applicable to the Premises, subject to the terms and conditions thereof. Tenant shall have no liability for any environmental condition or violation of law that exists in the Premises as of the date of this Lease unless such liability is due to Tenant's act or omission.

Section 6.2 - Laws and Regulations.

The Tenant shall comply with all federal, state and local laws, regulations, ordinances, executive orders, federal guidelines, and similar requirements in effect from time to time, including, without limitation, City of Cambridge ordinances numbered 1005, 1053,1086 and any subsequently adopted ordinance for employment and animal experimentation with respect to animal experiments and hazardous waste and any such requirements pertaining to employment opportunity, anti-discrimination and affirmative action. Tenant shall have the right to contest any notice of violation for any of the foregoing by appropriate proceedings diligently conducted in good faith. Landlord represents and warrants that the Premises are in compliance with applicable laws. Landlord shall cause the common areas of the Building and the Property to comply with all applicable legal requirements, including, without limitation the Americans with Disabilities Act.

Section 6.3 - Rules and Regulations.

The Tenant shall not obstruct in any manner any portion of the Property not hereby leased; shall not permit the placing of any signs, curtains, blinds, shades, awnings, aerials or flagpoles, or the like, visible from outside the Premises; and shall comply with all reasonable rules and regulations of uniform application to all occupants of the Building now or hereafter made by the Landlord, of which the Tenant

has been given notice, for the care and use of the Property and the parking facilities relating thereto. The Landlord shall not be liable to the Tenant for the failure of other occupants of the Building to conform to any such rules and regulations, however Landlord shall uniformly enforce the Rules and Regulations. Notwithstanding anything contained in this Lease (including all exhibits) to the contrary, Tenant shall have the right, at Tenant's expense, to install a sign or signs with its corporate logo at the entrance to the Premises on each level of the Building occupied, in part or in full, by Tenant, and, at Landlord's expense, shall have its name listed in the Building directory located in the Building's main lobby, subject to the prior approval of such sign by Landlord, which approval shall not be unreasonably withheld or delayed Tenant may use the Leasehold Improvements Allowance to pay for signage.

Section 6.4 - Safety Compliance.

The Tenant shall keep the Premises equipped with all safety appliances required by law or ordinance or any other regulations of any public authority because of any non-office use made by the Tenant and to procure all licenses and permits so required because of such use and, if requested by the Landlord, do any work so required because of such use, it being understood that the foregoing provisions shall not be construed to broaden in any way the Tenant's Permitted Uses. Tenant shall conduct such periodic tests, evaluations or certifications of safety appliances and laboratory equipment as are required or recommended in accordance with generally accepted standards for good laboratory practice to ensure that such safety appliances and equipment remain in good working order, and shall provide to Landlord copies of such reports, evaluations and certifications as they are periodically obtained by Tenant or upon ten (10) days advance notice from Landlord (but only to the extent that Tenant has failed to previously provide any such reports).

Section 6.5 - Landlord's Entry.

The Tenant shall permit the Landlord and its agents (which agents shall be identified to Tenant and reasonably approved by Tenant for entry), after 48 hours prior notice and at times reasonably acceptable to Tenant, except in the case of emergencies, to enter the Premises at all reasonable hours for the purpose of inspecting or of making repairs to the same, monitoring Tenant's compliance with the requirements and restrictions set forth in this Lease, and for the purpose of showing the Premises to prospective purchasers and mortgagees at all reasonable times and to prospective tenants (during the last nine (9) months of the Term or after notice of termination by the Tenant has been received by Landlord) provided that in connection with such entry, Tenant may provide procedures reasonably designed so as not to jeopardize Tenant's trade secrets, proprietary technology or critical business operations.

Section 6.6 - Floor Load.

The Tenant shall not place a load upon any floor in the Premises exceeding the floor load per square foot of area which such floor was designed to carry and which is allowed by law. Further, Tenant shall not move any safe, vault or other heavy equipment in, about or out of the Premises except in such manner and at such time as the Landlord shall in each instance authorize. The Tenant's machines and mechanical equipment shall be placed and maintained by the Tenant at the Tenant's expense in settings sufficient to absorb or prevent vibration or noise that may be transmitted to the Building structure or to any other space in the Building.

Section 6.7 - Personal Property Tax.

The Tenant shall pay promptly when due all taxes which may be imposed upon personal property (including, without limitation, fixtures and equipment) in the Premises to whomever assessed. Tenant

shall have the right to contest the validity or amount of any such taxes by appropriate proceedings diligently conducted in good faith.

Section 6.8 - Assignment and Subleases.

The Tenant shall not assign, mortgage, pledge, hypothecate or otherwise transfer this Lease, or sublet (which term, without limitation, shall include granting of concessions, licenses and the like) the whole or any part of the Premises without, in each instance, having first received the consent of the Landlord which consent shall not be unreasonably withheld, conditioned or delayed. Except as specifically permitted herein, any assignment or sublease made without such consent shall be void. The Landlord shall not be deemed to be unreasonable in withholding its consent to any proposed assignment or subletting by the Tenant based on any of the following factors:

(a) The business of the proposed occupant is not consistent with the image and character which the Landlord desires to promote for the Building.

(b) The proposed assignment, mortgage or pledge would in any way materially diminish Landlord's rights with respect to the Premises.

(c) The proposed occupant is not sufficiently creditworthy in the reasonable opinion of Landlord based on a comparison of the creditworthiness of other similarly-situated companies in the same industry as the proposed occupant.

Notwithstanding anything to the contrary contained in this Section, Tenant shall have the right to assign or otherwise transfer this Lease or the Premises, or part of the Premises, without obtaining the prior consent of Landlord, (a) to its parent corporation, to a wholly owned subsidiary, to a corporation which is wholly owned by the same corporation which wholly owns Tenant, to an entity directly or indirectly controlling, controlled by or under common control with Tenant, any entity owning or controlling fifty percent (50%) or more of the outstanding voting interest of Tenant, or any entity of which Tenant owns or controls fifty percent (50%) or more of the voting interests, provided that (i) the transferee shall, prior to the effective date of the transfer, deliver to Landlord instruments evidencing such transfer and its agreement to assume and be bound by all the terms, conditions and covenants of this Lease to be performed by Tenant, all in form reasonably acceptable to Landlord, and (ii) at the time of such transfer there shall not be an uncured Event of Default under this Lease; or (b) to the purchaser of all or substantially all of its assets, any entity resulting from the merger or consolidation of Tenant, any successor entity resulting from a bona fide reorganization or Tenant, or to any entity into which the Tenant may be merged or consolidated (along with all or substantially all of its assets) (the "Acquiring Company"), provided that (i) the net assets of the Acquiring Company at the time of the transfer or merger shall not be less than the greater of (x) the net assets of the Tenant as of the date of this Lease, or (y) the net assets of Tenant immediately prior to such transfer, (ii) the Acquiring Company continues to operate the business conducted in the Premises consistent with the Permitted Uses described in Exhibit A hereto, (iii) the Acquiring Company shall assume in writing, in form reasonably acceptable to Landlord, all of Tenant's obligations under this Lease, (iv) Tenant shall provide to Landlord such additional information regarding the Acquiring Company as Landlord shall reasonably request, and (v) Tenant shall pay Landlord's reasonable expenses incurred in connection therewith (up to a maximum amount of $5,000.00). Unless Landlord shall have objected to such assignment or transfer by Tenant within ten (10) business days following Landlord's receipt of the information or items described in (b)(i) and (iii) above, Landlord shall be deemed to have waived its right to object thereto. The transfers described in this paragraph are referred to hereinafter as "Permitted Transfers." Notwithstanding any other provision of this Lease, any public offering of shares or other ownership interest in Tenant or any private equity financing

of Tenant by one or more investors who regularly invest in private companies shall not be deemed an assignment and shall not be subject to Landlord approval.

Whether or not the Landlord consents, or is required to consent, to any assignment or subletting, the Tenant named herein (to the extent that the Tenant continues to exist as a distinct entity separate and apart from the entity to which the Lease is assigned) shall remain fully and primarily liable for the obligations of the tenant hereunder, including, without limitation, the obligation to pay Annual Fixed Rent and Additional Rent provided under this Lease.

The Tenant shall give the Landlord notice of any proposed sublease or assignment, whether or not the Landlord's consent is required hereunder, specifying the provisions of the proposed subletting or assignment, including (i) the name and address of the proposed subtenant or assignee, (ii) a copy of the proposed subtenant's or assignee's most recent annual financial statement, (iii) all of the terms and provisions upon which the proposed subletting or assignment is to be made. The Tenant shall reimburse the Landlord promptly for reasonable legal and other expenses incurred by the Landlord in connection with any request by the Tenant for consent to any assignment or subletting, in the aggregate amount of up to $5,000.00. If this Lease is assigned, or if the Premises or any part thereof is sublet or occupied by anyone other than the Tenant, the Landlord may, at any time during the continuance of an Event of Default hereunder without cure, collect rent and other charges from the assignee, sublessee or occupant and apply the net amount collected to the rent and other charges herein reserved, but no such assignment, subletting, occupancy or collection shall be deemed a waiver of the prohibitions contained in this Section 6.8 or the acceptance of the assignee, sublessee or occupant as a tenant, or a release of the Tenant from the further performance by the Tenant of covenants on the part of the Tenant herein contained. After deducting reasonable and ordinary sublease transaction expenses (including, without limitation, any broker's commission, legal fees and leasehold improvements), the Tenant shall pay to the Landlord fifty percent (50%) of any amounts the Tenant receives from any subtenant or assignee as rent, additional rent or other forms of compensation or reimbursement other than those which are less than or equal to the then due and payable proportionate monthly share of Annual Fixed Rent, Additional Rent and all other monies due to Landlord pursuant to this Lease (allocable in the case of a sublease to that portion of the Premises being subleased). The consent by the Landlord to an assignment or subletting shall not be construed to relieve the Tenant from obtaining the express consent in writing of the Landlord to any further assignment or subletting.

Landlord may elect, prior to approving or disapproving any proposed assignment or sublease of the Premises, to repossess the portion of the Premises that was proposed to be subleased or assigned. Landlord shall provide Tenant with written notice of its election to repossess die portion of the Premises that Tenant proposes to sublease or assign within fifteen (15) business days after receipt of notice from Tenant. Landlord may thereafter lease the Premises in such a manner as the Landlord may in its sole discretion determine. In the event Landlord elects to repossess the Premises as provided above, then all of the Tenant's rights and obligations hereunder with respect to the Premises shall cease and shall be of no further force and effect. The provisions of this paragraph shall not apply to Permitted Transfers.

ARTICLE VII

INDEMNITY AND INSURANCE

Section 7.1 - Indemnity.

(a) To the maximum extent this agreement may be made effective according to law, the Tenant shall defend the Landlord from and against all claims, proceedings, causes of actions and suits brought by third parties (collectively, "Claims") and shall indemnify and

hold harmless the Landlord from and against any resultant costs and expenses (including but not limited to reasonable attorneys' fees), losses or liabilities which the Landlord may be required to pay to third parties to the extent the Claim arises from any breach by Tenant of any obligation of Tenant under this Lease or from any act, omission or negligence of the Tenant, or the Tenant's contractors, licensees, invitees, agents, servants or employees, or arising from any accident, injury or damage whatsoever caused to any person or property, occurring after the date that possession of the Premises is first delivered to the Tenant and until the end of the Term and thereafter, so long as the Tenant is in occupancy of any part of the Premises, in or about the Premises or arising from any accident, injury or damage occurring outside the Premises but within the Building, on the Land, on the access roads and ways, in the parking facilities provided pursuant to the Lease, within University Park or any adjacent area maintained by Landlord or any individual or entity affiliated with Landlord, where such accident, injury or damage results, from the negligence or willful misconduct of the Tenant or the Tenant's agents or employees, licensees, invitees, servants or contractors. Notwithstanding the foregoing, the Tenant's obligations under this Section 7.1(a) shall not apply to the extent such Claims arise or result from a matter for which the Landlord is obligated to indemnify the Tenant as set forth in Section 7.1(b).

(b) To the maximum extent this agreement may be made effective according to law, the Landlord shall defend the Tenant from and against all Claims and shall indemnify and hold harmless the Tenant from and against any resultant costs and expenses (including but not limited to reasonable attorneys' fees), losses or liabilities which the Tenant may be required to pay to third parties to the extent due to loss of life, bodily or personal injury or property damage, arising from the negligence or willful misconduct of Landlord, its agents, employees or contractors which occur in or about the Premises or arising from any accident, injury or damage occurring outside the Premises but within the Building, on the Land, on the access roads and ways, in the parking facilities provided pursuant to the Lease, within University Park or any adjacent area maintained by Landlord or any individual or entity affiliated with Landlord., Notwithstanding the foregoing, the Landlord's obligations under this Section 7.1(b) shall not apply to the extent such Claims arise or result from a matter for which the Tenant is obligated to indemnify Landlord as set forth in Section 7.1 (a).

Section 7.2 - Liability Insurance.

The Tenant agrees to maintain in full force from the date upon which the Tenant first enters the Premises for any reason, throughout the Term, and thereafter, so long as the Tenant is in occupancy of any part of the Premises, a policy of commercial general liability insurance under which the Landlord (and any individuals or entities affiliated with the Landlord, any ground lessor and any holder of a mortgage on the Property of whom the Tenant is notified by the Landlord) and the Tenant are named as additional insureds, and under which the insurer provides a contractual liability endorsement insuring against all cost, expense and liability arising out of or based upon any and all claims, accidents, injuries and damages described in Section 7.1, in the broadest form of such coverage from time to time available. Tenant shall deliver to Landlord a certificate of such insurance. The minimum limits of liability of such insurance as of the Commencement Date shall be Five Million Dollars ($5,000,000.00) in the aggregate for combined bodily injury (or death) and damage to property ($3,000,000.00 per occurrence), and from time to time during the Extension Term such limits of liability shall be increased to reflect such higher limits as are customarily required pursuant to new leases of space in the Boston-Cambridge area with respect to similar properties.

Section 7.3 - Personal Property at Risk.

The Tenant agrees that all of the furnishings, fixtures, equipment, effects and property of every kind, nature and description of the Tenant and of all persons claiming by, through or under the Tenant which, during the continuance of this Lease or any occupancy of the Premises by the Tenant or anyone claiming under the Tenant which, during the continuance of this Lease or any occupancy of the Premises by the Tenant or anyone claiming under the Tenant, may be on the Premises or elsewhere in the Building or on the Lot or parking facilities provided hereby, shall be at the sole risk and hazard of the Tenant, and if the whole or any part thereof shall be destroyed or damaged by fire, water or otherwise, or by the leakage or bursting of water pipes, steam pipes, or other pipes, by theft or from any other cause, no part of said loss or damage is to be charged to or be borne by the Landlord, except that the Landlord shall in no event be exonerated from any liability to the Tenant or to any person, for any injury, loss, damage or liability to the extent caused by Landlord's, its agents, employees, licensees, invitees, servants or contractors gross negligence or willful misconduct.

Section 7.4 - Landlord's Insurance.

The Landlord shall carry such casualty and liability insurance upon and with respect to operations at the Building, as may from time to time be deemed reasonably prudent by the Landlord or required by any mortgagee holding a mortgage thereon or any ground lessor of the Land, and in any event, special form or all risk property insurance in an amount equal to the replacement value of the Building, exclusive of foundations, site preparation and other nonrecurring construction costs.

Section 7.5 - Waiver of Subrogation.

Any insurance carried by either party with respect to the Building, Land, Premises, parking facilities or any property therein or occurrences thereon shall, without further request by either party, if it can be so written without additional premium, or with an additional premium which the other party elects to pay, include a clause or endorsement denying to the insurer rights of subrogation against the other party to the extent rights have been waived by the insured prior to occurrence of injury or loss. Each party, notwithstanding any provisions of this Lease to the contrary, hereby waives any rights of recovery against the other for injury or loss, including, without limitation, injury or loss caused by negligence of such other party, due to hazards covered by insurance containing such clause or endorsement to the extent of the indemnification received thereunder or the amount of insurance required to be carried hereunder, whichever is greater.

ARTICLE VIII

CASUALTY AND EMINENT DOMAIN

Section 8.1 - Restoration Following Casualties.

If, during the Term, the Building or Premises shall be damaged by fire or casualty, subject to the exceptions and limitations provided below, the Landlord shall proceed promptly to exercise reasonable efforts to restore the Building or Premises to substantially the condition thereof at the time of such damage, but the Landlord shall not be responsible for delay in such restoration which may result from any External Cause. The Landlord shall have no obligation to expend in the reconstruction of the Building more than the actual amount of the insurance proceeds made available to the Landlord by its insurer and not retained by the Landlord's mortgagee or ground lessor. Any restoration of the Building or the Premises shall be altered to the extent necessary to comply with then current laws and applicable codes.

Section 8.2 - Landlord's Termination Election.

If the Landlord reasonably determines that the amount of insurance proceeds available to the Landlord is insufficient to cover the cost of restoring the Building or if in the reasonable opinion of the Landlord the Building has been so damaged that it is appropriate for the Landlord to raze or substantially alter the Building, then the Landlord may terminate this Lease by giving notice to the Tenant within sixty (60) days after the date of the casualty, provided that Landlord also terminates the leases of all other affected tenants in the Building. Any such termination shall be effective on the date designated in such notice from the Landlord, but in any event, not later than sixty (60) days after such notice, and if no date is specified, effective upon the date of the Casualty or Taking.

Section 8.3 - Tenant's Termination Election.

Unless the Landlord has earlier advised the Tenant of the Landlord's election to terminate this Lease pursuant to Section 8.2, or to restore the Premises (which restoration Landlord has reasonably estimated in written notice to Tenant will take no more than nine (9) months to complete) and maintain this Lease in effect pursuant to Section 8.1, the Tenant shall have the right after the expiration of ninety (90) days after any casualty which materially impairs a material portion of the Premises to give a written notice to the Landlord requiring the Landlord within ten (10) days thereafter to exercise or waive any right of the Landlord to terminate this Lease pursuant to Section 8.2 as a result of such casualty and if the Landlord fails to give timely notice to the Tenant waiving any right under Section 8.2 to terminate this Lease based on such casualty, or if such notice from Landlord indicates that restoration will require more than nine (9) months to complete, die Tenant shall be entitled, within five (5) business days after the expiration of such ten (10) day period, or receipt of notice of such period of restoration, as applicable, to give notice to the Landlord terminating this Lease. Where the Landlord is obligated to exercise reasonable efforts to restore the Premises, unless such restoration is completed within nine (9) months from the date of the casualty or taking, such period to be subject, however, to extension where the delay in completion of such work is due to External Causes (but in no event beyond nine (9) months from the date of the casualty or taking), the Tenant shall have the right to terminate this Lease at any time after the expiration of such nine-month (as extended) period until the restoration is substantially completed, such termination to take effect as of the date of the Casualty or Taking.

Section 8.4 - Casualty at Expiration of Lease.

If the Premises shall be damaged by fire or casualty in such a manner that the Premises cannot, in the ordinary course, reasonably be expected to be repaired within one hundred and twenty (120) days from the commencement of repair work and such damage occurs within the last eighteen (18) months of the Term (as the same may have been extended prior to such fire or casualty), either party shall have the right, by giving notice to the other not later than sixty (60) days after such damage, to terminate this Lease, whereupon this Lease shall terminate as of the date of such Casualty.

Section 8.5 - Eminent Domain.

Except as hereinafter provided, if the Premises, or such portion thereof as to render the balance (if reconstructed to the maximum extent practicable in the circumstances) unsuitable for the Tenant's purposes, shall be taken by condemnation or right of eminent domain, the Landlord or the Tenant shall have the right to terminate this Lease by notice to the other of its desire to do so, provided that such notice is given not later than thirty (30) days after the effective date of such

taking. If so much of the Building shall be so taken that the Landlord determines that it would be appropriate to raze or substantially alter the Building, the Landlord shall have the right to terminate this Lease by giving notice to the Tenant of the Landlord's desire to do so not later than thirty (30) days after the effective date of such taking.

Should any part of the Premises be so taken or condemned during the Term, and should this Lease be not terminated in accordance with the foregoing provisions, the Landlord agrees to use reasonable efforts to put what may remain of the Premises into proper condition for use and occupation as nearly like the condition of the Premises prior to such taking as shall be practicable, subject, however, to applicable laws and codes then in existence and to the availability of sufficient proceeds from the eminent domain taking not retained by any mortgagee or ground lessor.

Section 8.6 - Rent After Casualty or Taking.

If the Premises shall be damaged by fire or other casualty, except as provided below, the Annual Fixed Rent and Additional Rent shall be justly and equitably abated and reduced according to the nature and extent of the loss of use thereof suffered by the Tenant, from and after the date of the Casualty or Taking until the Premises shall be restored to substantially the same condition as immediately prior to such Casualty or Taking. In the event of a taking which permanently reduces the area of the Premises, a just proportion of the Annual Fixed Rent shall be abated for the remainder of the Term.

Section 8.7 - Taking Award.

Except as otherwise provided in Section 8.7, the Landlord shall have and hereby reserves and accepts, and the Tenant hereby grants and assigns to the Landlord, all rights to recover for damages to the Building and the Land, and the leasehold interest hereby created, and to compensation accrued or hereafter to accrue by reason of such taking, damage or destruction, as aforesaid, and by way of confirming the foregoing, the Tenant hereby grants and assigns to the Landlord, all rights to such damages or compensation. Nothing contained herein shall be construed to prevent the Tenant from prosecuting in any condemnation proceedings a claim for relocation expenses, provided that such action shall not affect the amount of compensation otherwise recoverable by the Landlord from the taking authority pursuant to the preceding sentence.

ARTICLE IX

DEFAULT

Section 9.1 - Tenant's Default.

Each of the following shall constitute an Event of Default:

(a) Failure on the part of the Tenant to pay the Annual Fixed Rent, Additional Rent or other charges for which provision is made herein on or before the date on which the same become due and payable, if such condition continues for five (5) business days after written notice that the same are due; provided, however if Tenant shall fail to pay any of the foregoing (after receipt by Tenant of written notice from Landlord) when due two (2) times in any period of twelve (12) consecutive months, then Landlord shall not be required to give notice to Tenant of any future failure to pay during the remainder of the Term and any extension thereof, and such failure shall thereafter constitute an Event of Default if not cured within five (5) business days after the same are due.

(b) Failure on the part of the Tenant to perform or observe any other term or condition contained in this Lease if the Tenant shall not cure such failure within thirty (30) days after written notice from the Landlord to the Tenant thereof, provided that in the case of breaches of obligations under this Lease which are susceptible to cure but cannot be cured within thirty (30) days through the exercise of due diligence, so long as the Tenant commences such cure within thirty (30) days, such breach remains susceptible to cure,

and the Tenant diligently pursues such cure, such breach shall not be deemed to create an Event of Default.

(c) The taking of the estate hereby created on execution or by other process of law; or a judicial declaration that the Tenant is bankrupt or insolvent according to law; or any assignment of the property of the Tenant for the benefit of creditors; or the appointment of a receiver, guardian, conservator, trustee in bankruptcy or other similar officer to take charge of all or any substantial part of the Tenant's property by a court of competent jurisdiction; or the filing of an involuntary petition against the Tenant under any provisions of the bankruptcy act now or hereafter enacted if the same is not dismissed within ninety (90) days; the filing by the Tenant of any voluntary petition for relief under provisions of any bankruptcy law now or hereafter enacted.

If an Event of Default shall occur and be continuing without cure, then, in any such case, whether or not the Term shall have begun, the Landlord lawfully may, immediately or at any time thereafter, give written notice to the Tenant specifying the Event of Default and this Lease shall come to an end on the date specified therein as fully and completely as if such date were the date herein originally fixed for the expiration of the Lease Term, and the Tenant will then quit and surrender the Premises to the Landlord, but the Tenant shall remain liable as hereinafter provided.

Section 9.2 - Damages.

In the event that this Lease is terminated, the Tenant covenants to pay to the Landlord forthwith on the Landlord's demand, as compensation, an amount (the Lump Sum Payment) equal to the excess, if any, of the discounted present value of the total rent reserved for the remainder of the Term over the then discounted present fair rental value of the Premises for the remainder of the Term. In calculating the rent reserved, there shall be included, in addition to the Annual Fixed Rent and all Additional Rent, the value of all other considerations agreed to be paid or performed by the Tenant over the remainder of the Term. In calculating the amounts to be paid by the Tenant under the foregoing covenant, the Tenant shall be credited with the net proceeds of any rent obtained by reletting the Premises, after deducting all the Landlord's expenses in connection with such reletting, including, without limitation, all repossession costs, brokerage commissions, fees for legal services and expenses of preparing the Premises for such reletting and Landlord shall use commercially reasonable efforts to relet the Premises. The Landlord shall use commercially reasonable efforts to relet the Premises, or any part or parts thereof, for a term or terms which may, at the Landlord's option, exceed or be equal to or less than the period which would otherwise have constituted the balance of the Term, and may grant such concessions

and free rent as the Landlord in its reasonable commercial judgment considers advisable or necessary to relet the same and shall make such alterations, repairs and improvements in the Premises as the Landlord in its reasonable commercial judgment considers advisable or necessary to relet the same. No action of the Landlord in accordance with foregoing or failure to relet or to collect rent under reletting shall operate to release or reduce the Tenant's liability except as provided herein. The Landlord shall be entitled to seek to rent other properties of the Landlord prior to reletting the Premises.

Section 9.3 - Cumulative Rights.

The specific remedies to which the Landlord may resort under the terms of this Lease are cumulative and are not intended to be exclusive of any other remedies or means of redress to which it may be lawfully entitled in case of any breach or threatened breach by the Tenant of any provisions of this Lease. In addition to the other remedies provided in this Lease, the Landlord shall be entitled to the restraint by injunction of the violation or attempted or threatened violation of any of the covenants, conditions or provisions of this Lease or to a decree compelling specific performance of any such

covenants, conditions or provisions. Nothing contained in this Lease shall limit or prejudice the right of the Landlord to prove for and obtain in proceedings for bankruptcy, insolvency or like proceedings by reason of the termination of this Lease, an amount equal to the maximum allowed by any statute or rule of law in effect at the time when, and governing the proceedings in which, the damages are to be proved, whether or not the amount be greater, equal to, or less than the amount of the loss or damages referred to above.

Section 9.4 - Landlord's Self-help.

If the Tenant shall at any time default in the performance of any obligation under this Lease, the Landlord shall have the right, but not the obligation, after any applicable cure period and upon reasonable, but in no event more than ten (10) days', notice to the Tenant (except in case of emergency in which case no notice need be given), to perform such obligation. The Landlord may exercise its rights under this Section without waiving any other of its rights or releasing the Tenant from any of its obligations under this Lease.

Section 9.5 - Enforcement Expenses; Litigation.

In the event that either party prevails in litigation commenced to enforce any right or obligation hereunder, such party shall be entitled to recover from the other party all reasonable costs and expenses incurred by such party in connection with the litigation.

If either party hereto be made or becomes a party to any litigation commenced by or against the other party by or against a third party, or incurs costs or expenses related to such litigation, involving any part of the Property and the enforcement of any of the rights, obligations or remedies of such party, then the party becoming involved in any such litigation because of a claim against such other party hereto shall receive from such other party hereto all costs and reasonable attorneys' fees incurred by such party in such litigation.

Section 9.6 - Interest on Overdue Payments.

Any Annual Fixed Rent and Additional Rent not paid within any applicable grace period shall bear interest from the date due to the Landlord until paid at the variable rate (the "Default Interest Rate") equal to the higher of (i) the rate at which interest accrues on amounts not paid when due under the terms of the Landlord's financing for the Building, as from time to time in effect, and (ii) one and one-half percent (1.5%) per month.

Section 9.7 - Landlord's Right to Notice and Cure.

The Landlord shall in no event be in default in the performance of any of the Landlord's obligations hereunder unless and until the Landlord shall have failed to perform such obligations within thirty (30) days after notice by the Tenant to the Landlord expressly specifying wherein the Landlord has failed to perform any such obligation, provided that in the case of breaches of obligations under this Lease which are susceptible to cure but cannot be cured within thirty (30) days through the exercise of due diligence, so long as the Landlord commences such cure within thirty (30) days, such breach remains susceptible to cure, and the Landlord diligently pursues such cure, such breach shall not be deemed an event of default under this Agreement. In the event of a breach or default of this Agreement by the Landlord, Tenant shall be afforded any and all rights and remedies afforded at law or in equity.

ARTICLE X

MORTGAGEES' AND GROUND LESSORS' RIGHTS

Section 10.1 - Subordination.

This Lease shall, at the election of the holder of any mortgage or ground lease on the Property, be subject and subordinate to any and all mortgages or ground leases on the Property, so that the lien of any such mortgage or ground lease shall be superior to all rights hereby or hereafter vested in the Tenant. Notwithstanding the foregoing, Tenant's rights under this Lease and use and enjoyment of the Premises shall not be disturbed by any such mortgagee or ground lessor so long as there is no uncured Event of Default, and, as a condition to any obligation to subordinate this Lease, Tenant shall be entitled to receive executed agreements from same to such effect.

Section 10.2 - Prepayment of Rent not to Bind Mortgagee.

No Annual Fixed Rent, Additional Rent, or any other charge payable to the Landlord shall be paid more than thirty (30) days prior to the due date thereof under the terms of this Lease and payments made in violation of this provision shall (except to the extent that such payments are actually received by a mortgagee or ground lessor) be a nullity as against such mortgagee or ground lessor and the Tenant shall be liable for the amount of such payments to such mortgagee or ground lessor.

Section 10.3 - Tenant's Duty to Notify Mortgagee; Mortgagee's Ability to Cure.

No act or failure to act on the part of the Landlord which would entitle the Tenant under the terms of this Lease, or by law, to be relieved of the Tenant's obligations to pay Annual Fixed Rent or Additional Rent hereunder or to terminate this Lease, shall result in a release or termination of such obligations of the Tenant or a termination of this Lease unless (i) the Tenant shall have first given written notice of the Landlord's act or failure to act to the Landlord's mortgagees or ground lessors of record, if any, of whose identity and address the Tenant shall have been given notice, specifying the act or failure to act on the part of the Landlord which would give basis to the Tenant's rights; and (ii) such mortgagees or ground lessors, after receipt of such notice, have failed or refused to correct or cure the condition complained of within a reasonable time thereafter, which shall include a reasonable time for such mortgagee or ground lessors, but in no event more than thirty (30) days after receipt of such notice, to obtain possession of the Property if possession is necessary for the mortgagee or ground lessor to correct or cure the condition and if the mortgagee or ground lessor notifies the Tenant of its intention to take possession of the Property and correct or cure such condition.

Section 10.4 - Estoppel Certificates.

The Tenant shall from time to time, upon not less than fifteen (15) days' prior written request by the Landlord, execute, acknowledge and deliver to the Landlord a statement in writing certifying to the Landlord or an independent third party, with a true and correct copy of this Lease attached thereto, to the extent such statements continue to be true and accurate, (i) that this Lease is unmodified and in full force and effect (or, if there have been any modifications, that the same is in full force and effect as modified and stating the modifications); (ii) that the Tenant has no knowledge of any defenses, offsets or counterclaims against its obligations to pay the Annual Fixed Rent and Additional Rent and to perform its other covenants under this Lease (or if there are any defenses, offsets, or counterclaims, setting them forth in reasonable detail); (iii) that there are no known uncured defaults of the Landlord or the Tenant under this Lease (or if there are known defaults, setting them forth in reasonable detail); (iv) the dates to which the Annual Fixed Rent, Additional Rent and other charges have been paid; (v) that the Tenant has

accepted, is satisfied with, and is in full possession of the Premises, including all improvements, additions and alterations thereto required to be made by Landlord under the Lease; (vi) that the Landlord has satisfactorily complied with all of the requirements and conditions precedent to the commencement of the Term of the Lease as specified in the Lease; (vii) that the Tenant has been in occupancy since the Commencement Date and paying rent since the specified dates; (viii) that no monetary or other considerations, including, but not limited to, rental concessions for Landlord, special tenant improvements or Landlord's assumption of prior lease obligations of Tenant have been granted to Tenant by Landlord for entering into Lease, except as specified; (ix) that Tenant has no notice of a prior assignment, hypothecation, or pledge of rents or of the Lease; (x) that the Lease represents the entire agreement between Landlord and Tenant; and (xi) such other statements of fact with respect to the Tenant and this Lease as the Landlord may reasonably request. On the Commencement Date, the Tenant shall, at the request of the Landlord, promptly execute, acknowledge and deliver to the Landlord a statement in writing that the Commencement Date has occurred, that the Annual Fixed Rent has begun to accrue and that the Tenant has taken occupancy of the Premises. Any statement delivered pursuant to this Section may be relied upon by any prospective purchaser, mortgagee or ground lessor of the Premises and shall be binding on the Tenant.

Landlord shall from time to time, upon not less than fifteen (15) days' prior written request by the Tenant, execute, acknowledge and deliver to the Tenant a statement in writing certifying to the Tenant or an independent third party, with a true and correct copy of this Lease attached thereto, to the extent such statements continue to be true and accurate (i) that this Lease is unmodified and in full force and effect (or, if there have been any modifications, that the same is in full force and effect as modified and stating the modifications); (ii) that the Landlord has no knowledge of any defenses, offsets or counterclaims against its obligations to perform its covenants under this Lease (or if there are any defenses, offsets, or counterclaims, setting them forth in reasonable detail); (iii) that there are no known uncured defaults of the Tenant or the Landlord under this Lease (or if there are known defaults, setting them forth in reasonable detail); (iv) the dates to which the Annual Fixed Rent, Additional Rent and other charges have been paid, and (v) that the Tenant is in full possession of the Premises, including all improvements, additions and alterations thereto required to be made by Landlord under the Lease; (vi) that the Tenant has satisfactorily complied with all of the requirements and conditions precedent to the commencement of the Term of the Lease as specified in the Lease; (vii) that the Tenant has been in occupancy since the Commencement Date and paying rent since the specified dates; (viii) that no monetary or other considerations, including, but not limited to, rental concessions for Landlord, special tenant improvements or Landlord's assumption of prior lease obligations of Tenant have been granted to Tenant by Landlord for entering into the Lease, except as specified; (ix) such other statements of fact with respect to the Tenant and this Lease as the Tenant may reasonably request. Any statement delivered pursuant to this Section may be relied upon by any prospective lender of Tenant, any prospective assignee or subtenant of Tenant or any prospective purchaser of Tenant or Tenant's assets, and shall be binding on the Landlord.

ARTICLE XI

MISCELLANEOUS

Section 11.1 - Notice of Lease.

The Tenant agrees not to record this Lease, but upon request of either party, both parties shall execute and deliver a memorandum of this Lease in form appropriate for recording or registration, an instrument acknowledging the Commencement Date of the Term, and if this Lease is terminated before the Term expires, an instrument in such form acknowledging the date of termination.

Section 11.2 - Notices.

Whenever any notice, approval, consent, request, election, offer or acceptance is given or made pursuant to this Lease, it shall be in writing. Communications and payments shall be addressed, if to the Landlord, at the Landlord's Address for Notices as set forth in Exhibit A or at such other address as may have been specified by prior notice to the Tenant; and if to the Tenant, at the Tenant's Address for Notices or at such other place as may have been specified by prior notice to the Landlord. Any communication so addressed shall be deemed duly given on the earlier of (i) the date received or (ii) on the third business day following the day of mailing if mailed by registered or certified mail, return receipt requested. If the Landlord by notice to the Tenant at any time designates some other person to receive payments or notices, all payments or notices thereafter by the Tenant shall be paid or given to the agent designated until notice to the contrary is received by the Tenant from the Landlord.

Section 11.3 - Authority.

Landlord represents and warrants that the individual executing this Lease on behalf of Landlord is duly authorized to execute and deliver this Lease on behalf of said entity, that said entity is duly authorized to enter into this Lease, and that this Lease is enforceable against said entity in accordance with its terms.

Tenant represents and warrants that the individual executing this Lease on behalf of Tenant is duly authorized to execute and deliver this Lease on behalf of said entity, that said entity is duly authorized to enter into this Lease, and that this Lease is enforceable against said entity in accordance with its terms.

Section 11.4 - Successors and Limitation on Liability on the Landlord.

The obligations of this Lease shall run with the land, and this Lease shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, except that the original Landlord named herein and each successor Landlord shall be liable only for obligations accruing during the period of its ownership. The obligations of the Landlord shall be binding upon the assets of the Landlord consisting of an equity ownership of the Property (and including any proceeds realized from the sale of such Property) but not upon other assets of the Landlord and neither the Tenant, nor anyone claiming by, under or through the Tenant, shall be entitled to obtain any judgment creating personal liability on the part of the Landlord or enforcing any obligations of the Landlord against any assets of the Landlord other than an equity ownership of the Property.

Section 11.5 - Waivers by the Landlord.

The failure of the Landlord or the Tenant to seek redress for violation of, or to insist upon strict performance of, any covenant or condition of this Lease, shall not be deemed a waiver of such violation nor prevent a subsequent act, which would have originally constituted a violation, from having all the force and effect of an original violation. The receipt by the Landlord of Annual Fixed Rent or Additional Rent with knowledge of the breach of any covenant of this Lease shall not be deemed a waiver of such breach. In the event of a breach or default of this Agreement by Landlord, any decision not to terminate this Lease shall not be deemed a waiver of such breach by Tenant. No provision of this Lease shall be deemed to have been waived by the Landlord or the Tenant, as the case may be, unless such waiver is in writing signed by the Landlord or the Tenant, as the case may be. No consent or waiver, express or implied, by the Landlord or Tenant to or of any breach of any agreement or duty shall be construed as a waiver or consent to or of any other breach of the same or any other agreement or duty.

Section 11.6 - Acceptance of Partial Payments of Rent.

No acceptance by the Landlord of a lesser sum than the Annual Fixed Rent and Additional Rent then due shall be deemed to be other than a partial installment of such rent due, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as rent be deemed an accord and satisfaction, and the Landlord may accept such check or payment without prejudice to the Landlord's right to recover the balance of such installment or pursue any other remedy in this Lease provided. The delivery of keys to any employee of the Landlord or to the Landlord's agent or any employee thereof shall not operate as a termination of this Lease or a surrender of the Premises.

Section 11.7 - Interpretation and Partial Invalidity.

If any term of this Lease, or the application thereof to any person or circumstances, shall to any extent be invalid or unenforceable, the remainder of this Lease, or the application of such term to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term of this Lease shall be valid and enforceable to the fullest extent permitted by law. The titles of the Articles are for convenience only and not to be considered in construing this Lease. This Lease contains all of the agreements of the parties with respect to the subject matter thereof and supersedes all prior dealings between them with respect to such subject matter.

Section 11.8 - Quiet Enjoyment.

So long as no Event of Default remains uncured, the Tenant shall peaceably and quietly have, hold and enjoy the Premises free of any claims by, through or under the Landlord.

Section 11.9 - Brokerage.

Each party represents and warrants to the other that it has had no dealings with any broker or agent in connection with this Lease other than Colliers International New England, LLC and Transwestern/RBJ ("Acknowledged Brokers") and shall indemnify and hold harmless the other from claims for any brokerage commission to a broker other than the Acknowledged Brokers arising out of the other party's actions.

Section 11.10 - Surrender of Premises and Holding Over.

The Tenant shall surrender possession of the Premises on the last day of the Term and the Tenant waives the right to any notice of termination or notice to quit. The Tenant covenants that upon the expiration or sooner termination of this Lease, it shall, without notice, deliver up and surrender possession of the Premises in the same condition in which the Tenant has agreed to keep the same during the continuance of this Lease and in accordance with the terms hereof, normal wear and tear and damage by fire or other casualty excepted, first removing therefrom all goods and effects of the Tenant and any leasehold improvements Landlord specified for removal pursuant to Section 4.2, and repairing all damage caused by such removal. Upon the expiration of this Lease or if the Premises should be abandoned by the Tenant, or this Lease should terminate for any cause, and at the time of such expiration, abandonment or termination, the Tenant or Tenant's agents, subtenants or any other person should leave any property of any kind or character on or in the Premises, the fact of such leaving of property on or in the Premises shall be conclusive evidence of intent by the Tenant, and individuals and entities deriving their rights through the Tenant, to abandon such property so left in or upon the Premises, and such leaving shall constitute abandonment of the property. Landlord shall have the right and authority without notice to the Tenant or anyone else, to remove and destroy, or to sell or authorize disposal of such property, or any part thereof, without being in any way liable to the Tenant therefor and the proceeds thereof shall belong to the Landlord as compensation for the removal and disposition of such property.

If the Tenant fails to surrender possession of the Premises upon the expiration or sooner termination of this Lease, the Tenant shall pay to Landlord, as rent for any period after the expiration or sooner termination of this Lease an amount equal to one hundred fifty percent (150%) of the Annual Fixed Rent and the Additional Rent required to be paid under this Lease as applied to any period in which the Tenant shall remain in possession. Acceptance by the Landlord of such payments shall not constitute a consent to a holdover hereunder or result in a renewal or extension of the Tenant's rights of occupancy. Such payments shall be in addition to and shall not affect or limit the Landlord's right of re-entry, Landlord's right to collect such damages as may be available at law, or any other rights of the Landlord under this Lease or as provided by law.

Section 11.11 - Ground Lease.

This Lease is in all respects subject to the ground lease (the "Ground Lease") between the Landlord as lessee and Massachusetts Institute of Technology ("MIT") as lessor dated as of August 20, 1986, as amended. If any provision of the Ground Lease shall be inconsistent with the provisions of this Lease, the provisions of the Ground Lease shall be deemed to limit the provisions hereof, except as are expressly otherwise provided in a written agreement signed by MIT, the Landlord and the Tenant, the form of which is attached hereto as Exhibit I.

Section 11.12 - Security Deposit.

(a) Letter of Credit.

Concurrent with the execution and delivery of this Lease, Tenant has delivered to Landlord as security for the performance of the obligations of Tenant hereunder a cash deposit or a letter of credit in the amount specified in Section 1.3 in accordance with this Section (as renewed, replaced, increased and/or reduced pursuant to this Section, the "Letter of Credit"). The Letter of Credit shall be in the form attached as Exhibit G to this Lease or such other form as Landlord may reasonably approve. If there is more than one Letter of Credit so delivered by Tenant, such Letters of Credit shall be collectively hereinafter referred to as the "Letter of Credit". The Letter of Credit (i) shall be irrevocable and shall be issued by a commercial bank reasonably acceptable to Landlord (Landlord hereby approving Silicon Valley Bank as the issuer), (ii) shall require only the presentation to the issuer of a certificate of the holder of the Letter of Credit stating either (a) that a default has occurred under this Lease after the expiration of any applicable notice and cure period (or stating that transmittal of a default notice is barred by applicable bankruptcy or other law if such is die case) or (b) stating that Tenant has not delivered to Landlord a new Letter of Credit having a commencement date immediately following the expiration of the existing Letter of Credit in accordance with the requirements of the Lease, (iii) shall be payable to Landlord and its successors in interest as the Landlord and shall be freely transferable without cost to any such successor or any lender holding a collateral assignment of Landlord's interest in the Lease, (iv) shall be for an initial term of not less than one year and contain a provision that such term shall be automatically renewed for successive one-year periods unless the issuer shall, at least thirty (30) days prior to the scheduled expiration date, give Landlord written notice of such nonrenewal, and (v) shall otherwise be in form and substance reasonably acceptable to Landlord. Notwithstanding the foregoing, the term of the Letter of Credit for the final period of the Term shall be for a term ending not earlier then the date sixty (60) days after the last day of the Term.

If Tenant shall be in default under the Lease, after the expiration of any applicable notice or cure period (or if transmittal of a default or other notice is stayed or barred by applicable bankruptcy or other law), Landlord shall be entitled to draw upon the Letter of Credit to the extent reasonably necessary to cure such default. If, not less than thirty (30) days before the scheduled expiration of the Letter of Credit, Tenant has not delivered to Landlord a new Letter of Credit having a commencement date immediately

following the expiration of the existing Letter of Credit in accordance with this Section, Landlord shall also have the right to draw upon the full amount of the Letter of Credit without giving any further notice to Tenant. Landlord may, but shall not be obligated to, apply the amount so drawn to the extent necessary to cure Tenant's default under the Lease. Any funds drawn by Landlord on the Letter of Credit and not applied against amounts due hereunder shall be held by Landlord as a cash security deposit, provided that Landlord shall have no fiduciary duty with regard to such amounts, shall have the right to commingle such amounts with other funds of Landlord, and shall pay no interest on such amounts. After any application of the Letter of Credit by Landlord in accordance with this paragraph, Tenant shall reinstate the Letter of Credit to the amount then required to be maintained hereunder, within thirty (30) days of demand. Within sixty (60) days after the expiration or earlier termination of the Term the Letter of Credit and any cash security deposit then being held by Landlord, to the extent not applied, shall be returned to the Tenant provided that no Event of Default is then continuing.

In the event that (i) Tenant is successful in raising no less than One Hundred Twenty Million Dollars ($120,000,000) in an initial public offering, and (ii) Tenant's market capitalization as shown on Bloomberg exceeds One Billion Dollars ($1,000,000,000) for three (3) consecutive months, then the amount of the Security Deposit shall be reduced to One Million Fifty-Four Thousand Five Hundred Seventy-Four Dollars ($1,054,574.00). If, after the third anniversary of the Rent Commencement Date, the Security Deposit has been reduced as provided for in the preceding sentence and there has not been an Event of Default by Tenant under the Lease in the payment of Annual Fixed Rent or Additional Rent during the previous three (3) year period and the Tenant is not currently in default (for which notice has been given), the amount of the Security Deposit shall be reduced to Eight Hundred Forty-Six Thousand Six Hundred Fifty-Nine Dollars ($846,659.00).

(b) Pledge.

The Landlord may pledge its right and interest in and to the cash deposit or Letter of Credit to any mortgagee or ground lessor and, in order to perfect such pledge, have such cash deposit or Letter of Credit held in escrow by such mortgagee or ground lessee or grant such mortgagee or ground lessee a security interest therein. In connection with any such pledge or grant of security interest by the Landlord to a mortgagee or ground lessee ("Pledgee"), Tenant covenants and agrees to cooperate as reasonably requested by the Landlord, in order to permit the Landlord to implement the same on terms and conditions reasonably required by such Pledgee.

(c) Transfer of Security Deposit.

In the event of a sale or other transfer of the Building or transfer of this Lease, Landlord shall transfer the cash deposit or Letter of Credit to the transferee, and Landlord shall thereupon be released by Tenant from all liability for the return of such security. The provisions hereof shall apply to every transfer or assignment made of the security to such a transferee. Tenant further covenants that it will not assign or encumber or attempt to assign or encumber the Letter of Credit or the proceeds thereof, and that neither Landlord nor its successors or assigns shall be bound by any assignment, encumbrance, attempted assignment or attempted encumbrance.

Section 11.13 - Financial Reporting.

Tenant shall from time to time (but not more often than annually), upon Landlord's written request, provide Landlord with financial statements of Tenant, together with related statements of Tenant's operations for Tenant's most recent fiscal year then ended, certified by an independent certified public accounting firm. Such delivery shall be subject to Landlord's execution of Tenant's standard form of confidentiality agreement.

Section 11.14 - Cambridge Employment Plan.

The Tenant agrees to sign an agreement with the Employment and Training Agency designated by the City Manager of the City of Cambridge as provided in subsections (a)-(g) of Section 24-4 of Ordinance Number 1005 of the City of Cambridge, adopted April 23,1984.

Section 11.15 - Parking and Transportation Demand Management.

Tenant covenants and agrees to work cooperatively with Landlord to develop a parking and transportation demand management ("PTDM") program that comprises part of a comprehensive PTDM for University Park, provided that such cooperation shall be at no expense to Tenant. In connection therewith, the use of single occupant vehicle commuting will be discouraged and the use of alternative modes of transportation and/or alternative work hours will be promoted. Without limitation of the foregoing, Tenant agrees that its PTDM program (and Tenant will require in any sublease or occupancy agreement permitting occupancy in the Premises that such occupant's PTDM program) will include offering a subsidized MBTA transit pass, either constituting a full subsidy or a subsidy in an amount equal to the maximum deductible amount therefore allowed under the federal tax code, to any employee working in the Premises requesting one. Tenant agrees to comply with the traffic mitigation measures required by the City of Cambridge, and Tenant shall otherwise comply with all legal requirements of the City of Cambridge pertaining thereto.

Section 11.16 - Solvent Storage.

Landlord shall manage the allocation of solvent storage quantities for tenants in the Building. Tenant shall have the right to store a total of up to one hundred fifty (150) gallons of liquid solvents on the second and third floors of the Premises. Additionally, Tenant shall have the right to build a control area for storage of liquid solvents in the portion of the Premises located on the first floor of the Building directly adjacent to the loading area, as shown on Exhibit B hereto (the "Chemical Storage Room"). Tenant shall be responsible for the cost to design and construct the Chemical Storage Room which may be paid for with the Leasehold Improvements Allowance. All solvent storage by Tenant shall be subject to Tenant receiving the necessary governmental approvals. Landlord shall make commercially reasonable efforts to assist in Tenant's pursuit of securing such approvals.

IN WITNESS WHEREOF, this Lease has been executed and delivered as of the date first above written as a sealed instrument.

LANDLORD:

THIRTY-EIGHT SIDNEY STREET LIMITED PARTNERSHIP,
a Delaware limited partnership

By: Forest City 38 Sidney Street, Inc.,
a Massachusetts corporation

By: /s/ Michael Farley
Name: Michael Farley
Title: Vice President

TENANT:

BLUEPRINT MEDICINES CORPORATION,
a Delaware corporation

By: /s/ Jeffrey Albers
Name: Jeffrey Albers
Title: CEO

EXHIBIT A
Basic Lease Terms

Premises:	The Premises shall be comprised of approximately 38,536 rentable square feet as follows: Floor 2: 25,363 rsf Floor 3: 13,173 rsf
Commencement Date:	The date Landlord delivers the Premises to Tenant with the current Tenant vacated and the Landlord's Work (as defined in Section 2.1) substantially complete.
Scheduled Commencement Date:	June 15, 2015
Rent Commencement Date:	The earlier to occur of (i) Tenant's occupancy of any part of the Premises for business purposes, or (ii) one hundred fifty (150) days after the Commencement Date.
Annual Fixed Rent for the Term:	$2,312,160.00, as adjusted per the terms of Section 3.1 hereof.
Initial Term:	Seven (7) years, commencing on the Rent Commencement Date and expiring on the seventh (7th) anniversary of

	the last day of the month in which the day immediately prior to the Rent Commencement Date occurs.
Security Deposit:	$1,265,488.00
Landlord's Address for Notices:	Forest City Commercial Group, Inc. 1360 Terminal Tower 50 Public Square Cleveland, Ohio 44113 Attention: General Counsel With a copy to: Forest City Commercial Management, Inc. 38 Sidney Street Cambridge, Massachusetts 02139-4234 Attention: Asset Manager
Parking Privileges:	During the Term, Tenant shall be entitled to use and shall pay for fifty-eight (58) parking passes in accordance with Section 2.4 of the Lease. Notwithstanding the foregoing sentence, Tenant shall not be obligated to lease more than thirty-nine (39) parking spaces for one (1) year following the Rent Commencement Date. Subject to availability, Tenant shall have the right to lease additional parking spaces from Landlord; such lease for additional parking spaces shall be on a month-to-month basis at the then-prevailing fair market value for such parking

	spaces.
Permitted Uses:	General business and administrative offices, laboratory biotechnology research, animal experimentation and customary accessory uses supporting the foregoing, as set forth in Section 6.1 of the Lease.
Tenant's Address for Notices:	Prior to the Rent Commencement Date: Blueprint Medicines Corporation 215 First Street Cambridge, MA 02142 Attention: Michael Landsittel After the Rent Commencement Date, at the Premises, Attention: Michael Landsittel In either case with a copy to: Goodwin Procter LLP Exchange Place 53 State Street Boston, MA 02109 Attention: Kingsley Taft
Leasehold Improvements Allowance:	$3,660,920.00
Base Building Allowance:	$600,000.00
Total Rentable Floor Area of Building:	121,622rsf

EXHIBIT B

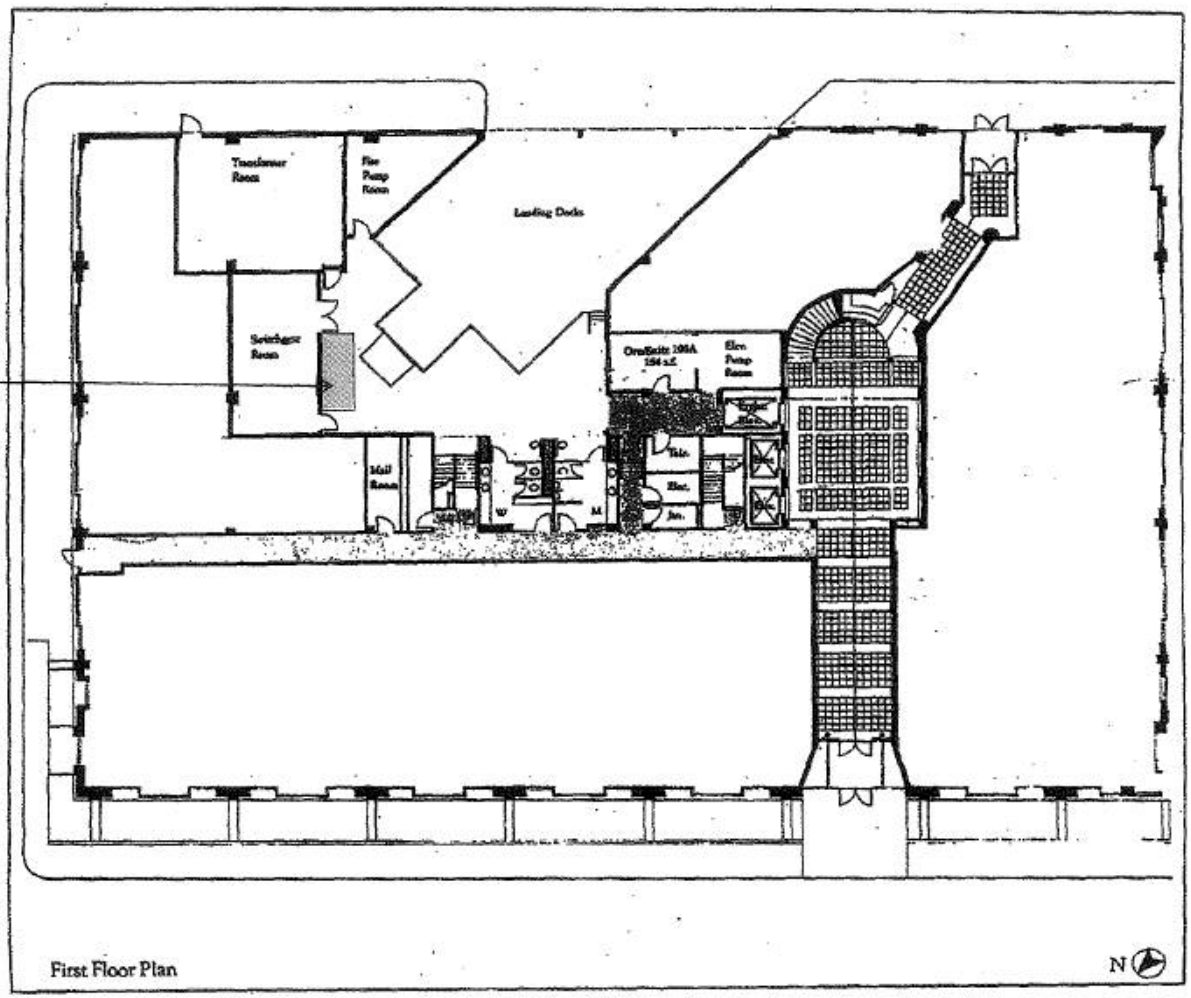
FLOOR PLANS SHOWING PREMISES

[SEE ATTACHED]

EXHIBIT B LOCATION OF CHEMICAL STORAGE ROOM

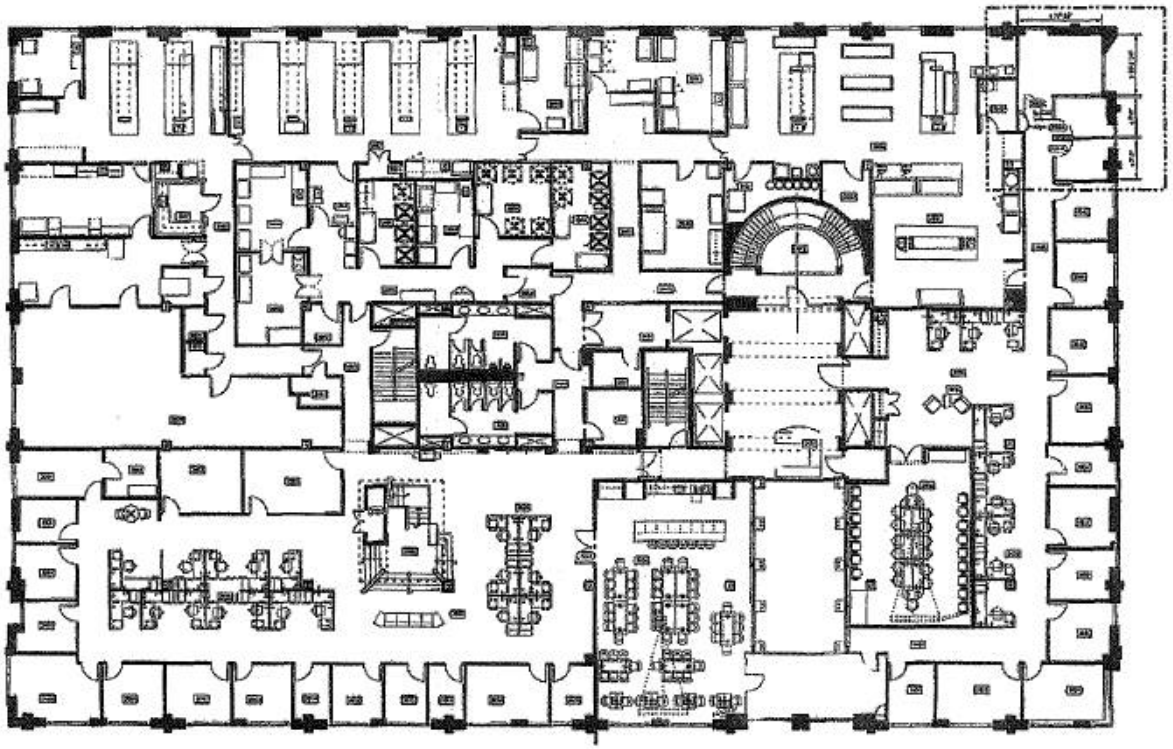
The Clark Building

38 Sidney Street
Cambridge, MA 02139



UNIVERSITY PARK AT M·I·T

Exhibit B – Premises



Floor 2

38 Sidney Street

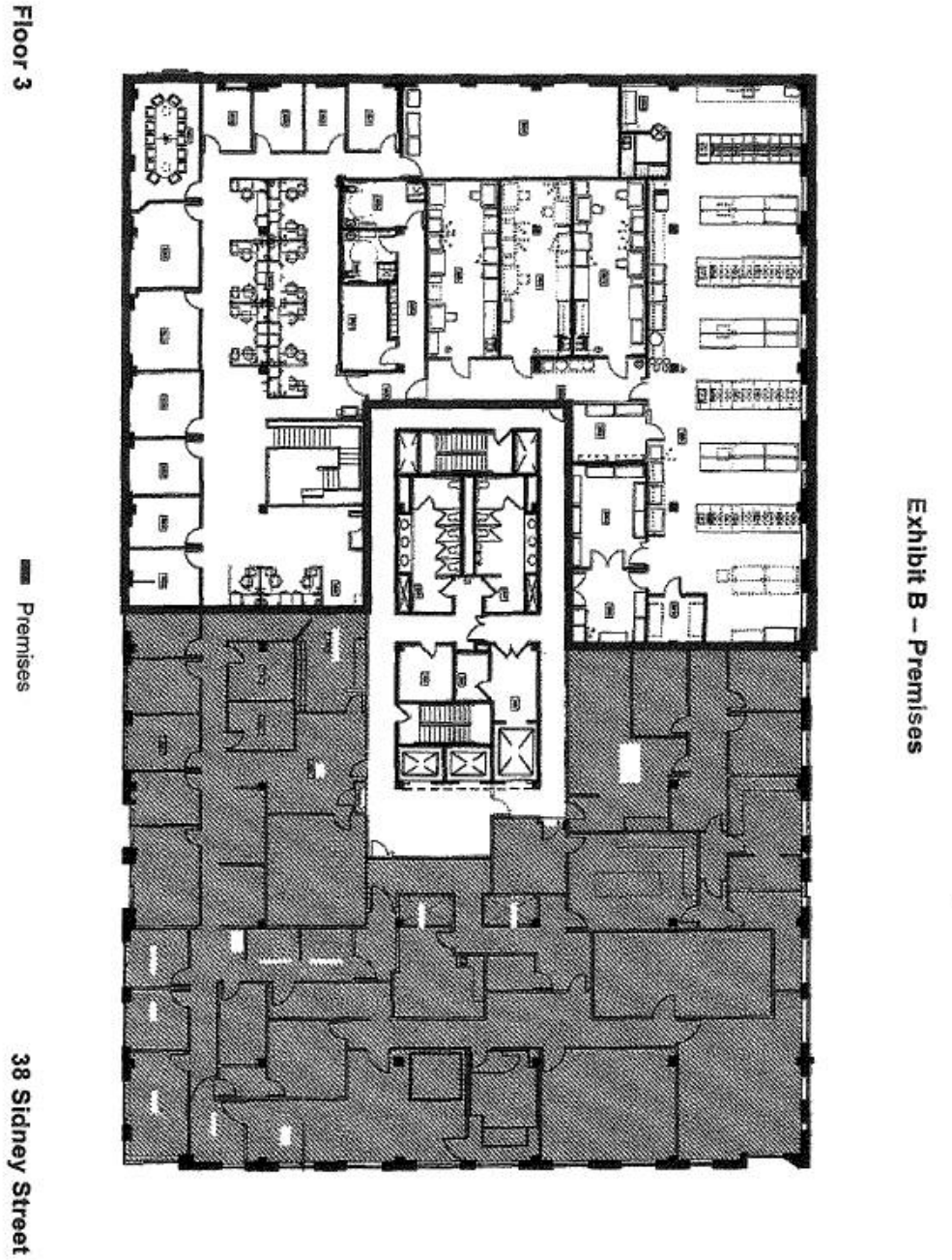


EXHIBIT C

STANDARD SERVICES

The building standard services shall be defined by the Landlord and its Management Agent. A listing of services shall be as promulgated from time to time by the Landlord and shall be further described in the Tenant Handbook.

The following services are provided by the Landlord:

A. Regular maintenance of interior, exterior and parking lot landscaping and University Park common areas.

B. Regular maintenance, sweeping and snow removal of building exterior areas such as roadways, driveways, sidewalks, parking areas and courtyard paving.

C. Complete interior and exterior cleaning of all windows two times per year.

D. Daily, weekday maintenance of hallways, passenger elevators, common area bathrooms, lobby areas and vestibules.

E. Periodic cleaning of stairwells, freight elevators, and back of house areas.

F. Daily, weekday rubbish removal of all tenant trash receptacles in the office space only; Landlord shall provide a dumpster and/or compactor at the loading dock for Building tenants' use for the disposal of non-hazardous/non-controlled substances, the cost of which shall be an Operating Expense.

G. Daily, weekday cleaning of Tenant space to building standard, in the office space only.

H. Maintenance and repair of base building surveillance and alarm equipment, mechanical, electrical, plumbing and life safety systems.

I. Building surveillance and alarm system operation and live monitoring service to building standard specifications.

J. Conditioned water for HVAC purposes shall be provided to the Premises from central mechanical equipment.

K. Utilities for all interior common areas and exterior building and parking lighting.

L. Lobby Security station to be staffed during the hours of 7:30am to 6:00pm Monday through Friday. After hours Building access is provided by a CCure card reader access system.

EXHIBIT D

RULES AND REGULATIONS

DEFINITIONS

Wherever in these Rules and Regulations the word "Tenant" is used, it shall be taken to apply to and include the Tenant and its agents, employees, invitees, licensees, contractors, any subtenants and is to be deemed of such number and gender as the circumstances require. The word "Premises" is to be taken to include the space covered by the Lease. The word "Landlord" shall be taken to include the employees and agents of Landlord. Other capitalized terms used but not defined herein shall have the meanings set forth in the Lease.

GENERAL USE OF BUILDING

A. Space for admitting natural light into any public area or tenanted space of the Building shall not be covered or obstructed by Tenant except in a manner approved by Landlord.

B. Toilets, showers and other like apparatus shall be used only for the purpose for which they were constructed. Any and all damage from misuse shall be borne by Tenant. These rooms should be locked at all times.

C. Except as otherwise permitted in the Lease, Landlord reserves the right to determine the number of letters allowed Lessee on any directory it maintains.

D. No sign, advertisement, notice or the like, shall be used in the Building by Tenant (other than at its office and then only as approved by Landlord in accordance with building standards). If Tenant violates the foregoing, Landlord may remove the violation without liability and may charge all costs and expenses incurred in so doing to Tenant.

E. Tenant shall not throw or permit to be thrown anything out of windows or doors or down passages or elsewhere in the Building, or bring or keep any pets therein, or commit or make any indecent or improper acts or noises. In addition, Tenant shall not do or permit anything which will obstruct, injure, annoy or interfere with other tenants or those having business with them, or affect any insurance rate on the Building or violate any provision of any insurance policy on the Building.

F. Unless expressly permitted by the Landlord in writing:

(1) No additional locks or similar devices shall be attached to any door or window and no keys other than those provided by the Landlord shall be made for any door; *provided however*, that Tenant may install and manage its own compatible card reader entry system for entry to and within the Premises. If more than two keys for one lock are desired by the Tenant, the Landlord may provide the same upon payment by the Tenant. Upon termination of this lease or of the Tenant's possession, the Lessee shall surrender all keys to the Premises and shall explain to the Landlord all combination locks on safes, cabinets and vaults.

(2) In order to insure proper use and care of the Premises Tenant shall not install any shades, blinds, or awnings or any interior window treatment without consent of Landlord. Blinds must be building standard.

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(3) All doors to the Premises are to be kept closed at all times except when in actual use for entrance to or exit from such Premises. The Tenant shall be responsible for the locking of doors and the closing of any transoms and windows in and to the Premises. Any damage or loss resulting from violation of this rule shall be paid for by the Tenant.

(4) The Tenant shall not install or operate any steam or internal combustion engine, boiler, machinery in or about the Premises, or carry on any mechanical business therein except as currently utilized at the Premises or in accordance with the terms of the Lease. All equipment of any electrical or mechanical nature shall be placed in settings which absorb and prevent any vibration, noise or annoyance.

G. Landlord shall designate the time when and the method whereby freight, small office equipment, furniture, safes and other like articles may be brought into, moved or removed from the Building or Premises, and to designate the location for temporary disposition of such items.

H. In order to insure proper use and care of the Premises Tenant shall not allow anyone other than Landlord's employees or contractors to clean the Premises without Landlord's permission, provided, however, that Landlord acknowledges and agrees that Tenant shall clean rooms used for Tenant's work with animals at the Premises.

I. The Premises shall not be defaced in any way. No changes in the HVAC, electrical fixtures or other appurtenances of said Premises shall be made except in accordance with the Terms of this Lease.

J. For the general welfare of all tenants and the security of the Building, Landlord may require all persons entering and/or leaving the Building on weekends and holidays and between the hours of 6:00 p.m. and 8:00 a.m. to register with the Building attendant or custodian by signing his name and writing his destination in the Building, and the time of entry and actual or anticipated departure, or other procedures deemed necessary by Landlord. Landlord may deny entry during such hours to any person who fails to provide satisfactory identification.

K. No animals, birds, pets, and no bicycles or vehicles of any kind shall be brought into or kept in or about said Premises or the lobby or halls of the Building, excepting those animals used for research purposes, by a disabled person, or otherwise within the scope of the Permitted Uses. Tenant shall not cause or permit any unusual or objectionable odors, noises or vibrations to be produced upon or emanate from said Premises.

L. Unless specifically authorized by Landlord, employees or agents of Landlord shall not perform for nor be asked by Tenant to perform work other than their regularly assigned duties.

M. Canvassing, soliciting and peddling in the Building are prohibited and Tenant shall cooperate to prevent the same from occurring.

N. All parking, Building operation, or construction rules and regulations which may be established from time to time by Landlord on a uniform basis shall be obeyed.

O. Tenant shall not place a load on any floor of said Premises exceeding one hundred (100) pounds per square foot. Landlord reserves the right to prescribe the weight and position of all safes and heavy equipment.

P. Tenant shall not install or use any air conditioning or heating device or system other than in accordance with the terms of the Lease, unless previously approved by Landlord.

Q. Landlord shall have the right to make such other and further reasonable rules and regulations as in the judgment of Landlord, may from time to time be needful for the safety, appearance, care and cleanliness of the Building and for the preservation of good order therein, provided that such other and further reasonable rules and regulations shall not interfere with the Permitted Uses. Landlord shall not be responsible to Tenant for any violation of rules and regulations by other tenants, provided that the Landlord shall use diligent efforts to enforce the rules and regulations and shall do so in a uniform manner with respect to all tenants of the Building.

R. The Blanche Street private way and loading areas, parking areas, sidewalks, entrances, lobbies, halls, walkways, elevators, stairways and other common area provided by Landlord shall not be obstructed by Tenant, or used for other purpose than for ingress and egress.

S. In order to insure proper use and care of the Premises Tenant shall not install any call boxes or communications systems or wiring of any kind except in accordance with the terms of the Lease.

T. In order to insure proper use and care of the Premises Tenant shall not manufacture any commodity, or prepare or dispense for sales any foods or beverages, tobacco, flowers, or other commodities or articles, except vending machines for the benefit of employees and invitees of Tenant, without the written consent of Landlord.

U. In order to insure use and care of the Premises Tenant shall not enter any janitors' closets, mechanical or electrical areas, telephone closets, loading areas, roof or Building storage areas (except to the extent completely located within the Premises) without reasonable notice to Landlord.

V. In order to insure proper use and care of the Premises Tenant shall not place door mats in public corridors without consent of Landlord.

EXHIBIT E

WORK LETTER

1. Tenant, at its expense, shall be responsible for the preparation of the architectural plans and the mechanical, electrical and plumbing engineering plans and specifications (the "Tenant Plans") necessary for the construction of Tenant's leasehold improvements (the "Tenant Work"). The Tenant Plans shall be subject to Landlord's approval, not to be unreasonably withheld or delayed. Tenant may use the Leasehold Improvements Allowance to pay for said Tenant Plans. Tenant may select its own architect and engineers, subject to Landlord's reasonable approval.

2. Subject to Landlord's reasonable approval, Tenant shall have the right, at its expense, to hire and manage a mutually reasonably approved contractor, subcontractors, engineers, architects, and construction manager to perform the Tenant Work. All work to be performed in the Premises shall be subject to Landlord approval which shall not be unreasonably withheld, and performed in accordance with established tenant construction rules and regulations. There shall be no Landlord coordination, overhead or contractor supervision fees. However, Landlord shall be reimbursed, from the Leasehold Improvements Allowance, for any third-party, out-of-pocket expenses incurred by Landlord in the review and approval of Tenant's plans, specifications, improvements and construction. During Tenant's construction, during normal business hours, at no additional cost, Tenant shall have access to the base building infrastructure such as electric power, freight elevator, HVAC and utilization of the available building chases for ducting purposes. Should any of this work affect other building tenants, then die timing of the work will need to be scheduled and approved by Landlord.

3. Landlord shall provide to Tenant the Leasehold Improvements Allowance and the Base Building Allowance, for application to the costs and expenses, more particularly set forth below, incurred by or on behalf of Tenant. If Tenant incurs costs in excess of the Leasehold Improvements Allowance or the Base Building Allowance, as applicable, then all such excess costs shall be born solely by Tenant. The Tenant must apply to Landlord for reimbursement from the Leasehold Improvements Allowance or the Base Building Allowance within one (1) year after the Rent Commencement Date. Any portion of such Leasehold Improvements Allowance or Base Building Allowance for which application for reimbursement has not been made within such one (1) year period shall be cancelled and no longer available.

4. The application of the Leasehold Improvements Allowance by Landlord shall be limited to payment of the following costs and expenses incurred by or on behalf of Tenant in connection with the Improvements: (i) the actual documented and verified cost pursuant to Tenant's design and construction contracts, including without limitation the associated contractor's overhead and profit and general conditions, incurred in the construction of the

Improvements to the Premises, (ii) data/telecom cabling, and (iii) move-related expenses, The Leasehold Improvements Allowance shall not be used for the making of improvements, installation of fixtures or incorporation of other items which are moveable rather than permanent improvements in the nature of trade fixtures, examples of which may include furniture, telephone communications and security equipment, and bench-top laboratory equipment items such as microscopes.

5. The application of the Base Building Allowance by Landlord shall be limited to payment of the actual documented and verified costs incurred solely in connection with the construction of improvements to the base building systems and equipment, which shall include the purchase and installation of a 200 ton air cooled chiller, a 25,000 cfm AHU and a 36,000 cfm utility set roof fan, and any related electrical improvements to support such equipment. The Base Building Allowance shall not be used for the making of improvements in the Premises unrelated to the base building systems.

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6. During the construction of any Improvements with respect to which Tenant desires to have the Leasehold Improvements Allowance or Base Building Allowance applied, and in accordance with the commercially reasonable terms and conditions typically imposed upon a landlord pursuant to a construction loan agreement, such as, without limitation, retainage, lien waiver, and other requisition conditions, Tenant shall, on a monthly basis (as the Tenant's contractor submits to Tenant its application for payment), deliver to Landlord a requisition for payment showing the costs of the leasehold improvements in question and the amount of the current payment requested from Landlord for disbursement from the Leasehold Improvements Allowance or Base Building Allowance within thirty (30) days after receipt of Tenant's requisition. Payments made on account of Tenant's requisitions shall be made from the Leasehold Improvements Allowance or Base Building Allowance, as applicable. Following the completion of any such Improvements, Tenant shall deliver to the Landlord, within ninety (90) days of completion, a statement showing the final costs of such Improvements, the amounts paid to date, or on behalf of the Tenant, and any amounts available for release of retainage.

EXHIBIT F

TENANT CONSTRUCTION WORK AT UNIVERSITY PARK

The tenant construction work procedure at University Park is designed to provide efficient scheduling of work while protecting other tenants from unnecessary noise and inconvenience. The attached document explains the procedure and has been prepared in keeping with the standard lease at University Park. It contains detailed information to assist you in planning construction projects. Please review it carefully before design begins.

SUMMARY

1. Contact the Property Manager as the first step. The Property Manager will be happy to assist you in completing your project efficiently.

2. Incorporate the provisions of the attached document and the "Indoor Air Quality Guidelines for Tenant Improvement Work" into all of your agreements and contracts. You will need written approval from Forest City Commercial Management before contracting any work.

3. At least four weeks before construction provide four sets of drawings and plans to the Property Manager for approval. The Property Manager must also approve your list of contractors and subcontractors.

4. At least two weeks before construction, submit to the Property Manager detailed schedules; addresses and telephone numbers of supervisors, contractors and subcontractors; copies of permits; proof of current insurance; Payment, Performance and Lien bonds; and notice of any contractor's involvement in a labor dispute.

5. We will generally require that you conduct noisy, disruptive or odor and dust producing work, as well as the delivery of construction materials, outside of regular business hours.

6. We expect all contractors to maintain safe and orderly conditions, labor harmony and proper handling of any hazardous materials. We may stop any work that does not meet the conditions outlined in the attached document.

7. Before occupying the completed space, submit the final certificate of occupancy and any other approvals to the Property Manager. We also require an air balancing report signed by a professional engineer. A complete set of "as built" sepia drawings as well as electronic "as-built" drawings in AutoCAD Release 12, DXF format must be hand delivered to the Property Manager.

Please note that this summary highlights key aspects of the attached document (entitled Rules and Regulations for Design and Construction of Tenant Work) for your convenience and does not supersede it in any way.

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1. DEFINITIONS

1.1	Buildings:	University Park at MIT: 38 Sidney, 45 Sidney, 75 Sidney, 64 Sidney, 88 Sidney, 26 Landsdowne, 35 Landsdowne, 40 Landsdowne, 65 Landsdowne and 350 Mass. Ave
1.2	Property Manager:	Jay Kiely, or such other individual as Landlord may designate, from time to time.
1.3	INTENTIONALLY OMITTED	
1.4	Consultants:	Any architectural, engineering, or design consultant engaged by a Tenant

in connection with Tenant Work.

1.5	Contractor:	Any Contractor engaged by a Tenant of the Building for the performance of any Tenant Work, and any Subcontractor, employed by any such Contractor.
1.6	Plans:	All architectural, electrical and mechanical construction drawings and specifications required for the proper construction of the Tenant Work.
1.7	Regular Business Hours:	Monday through Friday, 7:30 A.M. through 5:30 P.M., excluding holidays.
1.8	Tenant:	Any occupant of the Building.
1.9	Tenant Work:	Any alternations, improvements, additions, repairs or installations in the Building performed by or on behalf of any Tenant.
1.10	Tradesperson:	Any employee (including, without limitation, any mechanic, laborer, or Tradesperson) employed by a Contractor performing Tenant Work.

2.0 GENERAL

2.1 All Tenant Work shall be performed in accordance with these rules and regulations and the applicable provisions of the Lease.

2.2 The provisions of these rules and regulations shall be incorporated in all agreements governing the performance of all Tenant Work, including, without limitation, any agreements governing services to be rendered by each Contractor and Consultant

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2.3 Except as otherwise provided in these Rules and Regulations, all inquiries, submissions and approvals in connection with any Tenant Work shall be processed through the Property Manager.

3. PLANS

3.1 Review and Approval:

Any Tenant wishing to perform Tenant Work must first obtain the Landlord's written approval of its plans for such Tenant Work. Landlord will allow the Tenant the right to choose its own space planner (s) and architect for the design of the tenant work, provided, however, Tenant shall be required to retain under separate contract Landlord's mechanical, electrical, plumbing and structural engineers (s) with respect to such Tenant work to ensure operating consistency of the Premises with the building. Under no circumstances will any Tenant Work be permitted prior to such approval. Such approval shall be obtained prior to the execution of any agreement with any Contractor for the performance of such Tenant Work.

3.2 Submission

Requirements:

a. Any Tenant performing Tenant Work shall, at the earliest possible time but at least four weeks before any Tenant Work is to begin, furnish to the Property Manager four full sets of plans and specifications describing such Tenant Work.

b. Intentionally Omitted.

c. The design manifested in the Plans will be reviewed by the Landlord and shall comply with his requirements so as to avoid aesthetic or other conflicts with the design and function of the Tenant's premises and of the Building as a whole.

4. PRECONSTRUCTION NOTIFICATION AND APPROVALS

4.1 Approval to Commence Work

a. Tenant shall submit to Property Manager, for the approval of Property Manager, the names of all prospective Contractors prior to issuing any bid packages to such Contractors.

b. No Tenant Work shall be undertaken by any Contractor or Tradesperson unless and until all the matters set forth in Article 4.2 below have been received for the Tenant Work in question and unless Properly Manager has approved the matters set forth in Article 4.2 below.

4.2 No Tenant Work shall be performed unless, at least two weeks before any Tenant Work is to begin, all of the following has been provided to the Property Manager and approved. In the event that Tenant proposes to change any of the following, the Property Manager shall be immediately notified of such change and such change shall be subject to the approval of the Property Manager:

a. Schedule for the work, indicating start and completion dates, any phasing and special working hours, and also a list of anticipated shutdowns of building systems.

b. List of all Contractors and Subcontractors, including addresses, telephone numbers, trades employed, and the union affiliation, if any, of each Contractor and Subcontractor.

c. Names and telephone numbers of the supervisors of the work.

d. Copies of all necessary governmental permits, licenses and approvals.

e. Proof of current insurance, to the limits set out in Exhibit A to these Rules and Regulations, naming Landlord as an additional insured party.

f. Notice of the involvement of any Contractor in any ongoing or threatened labor dispute.

g. Payment, Performance and Lien Bonds from sureties acceptable to Landlord, in form acceptable to Landlord, naming Landlord as an additional obligee.

h. Evidence that Tenant has made provision for either written waivers of lien from all Contractors and suppliers of material, or other appropriate protective measures approved by Landlord.

4.3 Reporting Incidents

All accidents, disturbances, labor disputes or threats thereof, and other noteworthy events pertaining to the Building or the Tenant's property shall be reported immediately to the Property Manager. A written report must follow within 24 hours.

5. CONSTRUCTION SCHEDULE

5.1 Coordination

a. All Tenant Work shall be carried out expeditiously and with minimum disturbance and disruption to the operation of the Building and without causing discomfort, inconvenience, or annoyance to any of the other tenants or occupants of the Building or the public at large.

b. All schedules for the performance of construction, including materials deliveries, must be coordinated through the Property Manager. The Property Manager shall have the right, without incurring any liability to any Tenant, to stop activities and/or to require rescheduling of Tenant Work based upon adverse impact on the tenants or occupants of the Building or on the maintenance or operation of the Building.

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c. If any tenant Work requires the shutdown of risers and mains for electrical, mechanical, sprinklers and plumbing work, such work shall be supervised by a representative of Landlord. No Tenant Work will be performed in the Building's mechanical or electrical equipment rooms without both Landlord's prior approval and the supervision of a representative of Landlord, the cost of which shall be reimbursed by the Tenants.

5.2 Time Restrictions

a. Subject to Paragraph 5.1 of these rules and regulations, general construction work will generally be permitted at all times, including during Regular Business Hours.

b. Tenant shall provide the Property Manager with at least twenty-four (24) hours notice before proceeding with Special Work, as hereinafter defined, and such Special Work will be permitted only at times agreed to by the Property Manager during periods outside of Regular Business Hours. "Special Work" shall be defined as the following operations:

(1) All utility disruptions, shutoffs and turnovers;

(2) Activities involving high levels of noise, including demolition, coring, drilling and ramsetting;

(3) Activities resulting in excessive dust or odors, including demolition and spray painting.

c. The delivery of construction materials to the Building, their distribution within the Building, and the removal of waste materials shall also be confined to periods outside Regular Business Hours, unless otherwise specifically permitted in writing by the Property Manager.

d. If coordination, labor disputes or other circumstances require, the Property Manager may change the hours during which regular construction work can be scheduled and/or restrict or refuse entry to and exit from the Building by any Contractor.

6. CONTRACTOR PERSONNEL

6.1 Work in Harmony

a. All Contractors shall be responsible for employing skilled and competent personnel and suppliers who shall abide by the rules and regulations herein set forth as amended from time to time by Landlord.

b. No Tenant shall at any time, either directly or indirectly, employ, permit the employment, or continue the employment of any Contractor if such employment or continued employment will or does interfere or cause any labor disharmony, coordination difficulty, delay or conflict with any other contractors engaged in construction work in or about the Building or the complex in which the Building is located.

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c. Should a work stoppage or other action occur anywhere in or about the Building as a result of the presence, anywhere in the Building, of a Contractor engaged directly or indirectly by a Tenant, or should such Contractor be deemed by Landlord to have violated any applicable rules or regulations, then upon twelve hours written notice, Landlord may, without incurring any liability to Tenant or said Contractor, require any such Contractor to vacate the premises demised by such Tenant and the Building, and to cease all further construction work therein.

6.2 Conduct

a. While in or about the Building, all Tradespersons shall perform in a dignified, quiet, courteous, and professional manner at all times. Tradespersons shall wear clothing suitable for their work and shall remain fully attired at all times. All Contractors will be responsible for their Tradespersons' proper behavior and conduct.

b. The Property Manager reserves the right to remove anyone who, or any Contractor which; is causing a disturbance to any tenant or occupant of the Building or any other person using or servicing the Building; is interfering with the work of others; or is in any other way displaying conduct or performance not compatible with the Landlord's standards.

6.3 Access

a. All Contractors and Tradespersons shall contact the Property Manager prior to commencing work, to confirm work location and Building access, including elevator usage and times of operation. Access to the Building before and after Regular Business Hours or any other hours designated from time to time by the Building Manger and all day on weekends and holidays will only be provided when twenty-four (24) hours advanced notice is given to the Property Manager.

b. No Contractor or Tradesperson will be permitted to enter any private or public space in the Building, other than the common areas of the Building necessary to give direct access to the premises of Tenant for which he has been employed, without the prior approval of the Property Manager.

c. All Contractors and Tradespersons must obtain permission from the Property Manager prior to undertaking work in any space outside of the Tenant's premises. This requirement specifically includes ceiling spaces below the premises where any work required must be undertaken at the convenience of the affected Tenant and outside of Regular Business Hours. Contractors undertaking such work shall ensure that all work, including work required to reinstate removed items and cleaning, be completed prior to opening of the next business day.

d. Contractors shall ensure that all furniture, equipment and accessories in areas potentially affected by any Tenant Work shall be adequately protected by means of drop cloths or other appropriate measures. In addition, all Contractors shall be responsible for maintain security to the extent required by the Property Manager.

e. Temporary access doors for tenant construction areas connecting with a public corridor will be building standards, i.e., door, frame, hardware and lockset. A copy of the key will be furnished to the Property Manager.

6.4 Safety

a. All Contractors shall police ongoing construction operations and activities at all times, keeping the premises orderly, maintaining cleanliness in and about the premises, and ensuring safety and protection of all areas, including truck docks, elevators, lobbies and all other public areas which are used for access to the premises.

b. All Contractors shall appoint a supervisor who shall be responsible for all safety measures, as well as for compliance with all applicable governmental laws, ordinances, rules and regulations such as, for example, "OSHA" and "Right-to-Know" legislation.

c. Any damage caused by Tradespersons or other Contractor employees shall be the responsibility of the Tenant employing the Contractor. Costs for repairing such damage shall be charge directly to such Tenant.

6.5 Parking

a. Parking is not allowed in or near truck docks, in handicapped or fire access lanes, or any private ways in or surrounding the property, vehicles so parked will be towed at the expense of the Tenant who has engaged the Contractor for whom the owner of such vehicle is employed.

b. The availability of parking in any parking areas of the Building is limited. Use of such parking for Contractors and their personnel is restricted and must be arranged with and approved by the Property Manager.

7. BUILDING MATERIALS

7.1 Delivery

All deliveries of construction materials shall be made at the predetermined times approved by the Property Manager and shall be effected safely and expeditiously only at the location determined by the Property Manager.

7.2 Transportation in Building

a. Distribution of materials from delivery point to the work area in the Building shall be accomplished with the least disruption to the operation of the Building possible. Elevators will be assigned for material delivery and will be controlled by the Building management.

b. Contractors shall provide adequate protection to all carpets, wall surfaces, doors and trim in all public areas through which materials are transported. Contractors shall continuously clean all such areas. Protective measures shall include runners over carpet, padding in elevators and any other measures determined by the Property Manager.

c. Any damage caused to the Building through the movement of construction materials or otherwise shall be the responsibility of Tenant who has engaged the

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Contractor involved. Charges for such damage will be submitted by the Landlord directly to the Tenant.

7.3 Storage and Placement

a. All construction materials shall be stored only in the premises where they are to be installed. No storage of materials will be permitted in any public areas, loading docks or corridors leading to the premises.

b. No flammable, toxic, or otherwise hazardous materials may be brought in or about the Building unless: (i) authorized by the Property Manager, (ii) all applicable laws, ordinances, rules and regulations are complied with, and (iii) all necessary permits have been obtained. All necessary precautions shall be taken by the Contractor handling such materials against damage or injury caused by such materials.

c. All materials required for the construction of the premises must comply with Building standards, must conform with the plans and specifications approved by Landlord, and must be installed in the locations shown on the drawings approved by the Landlord.

d. All work shall be subject to reasonable supervision and inspection by Landlord's Representative.

e. No alternations to approved plans will be made without prior knowledge and approval of the Property Manager. Such changes shall be documented on the as-built drawings required to be delivered to Landlord pursuant to Paragraph 10 of the rules and regulations.

f. All protective devices (e.g., temporary enclosures and partitions) and materials, as well as their placement, must be approved by the Property Manager.

g. It is the responsibility of Contractors to ensure that the temporary placement of materials does not impose a hazard to the Building or its occupants, either through overloading, or interference with Building systems, access, egress or in any other manner whatsoever.

h. All existing and/or new openings made through the floor slab for piping, cabling, etc. must be packed solid with fiberglass insulation to make openings smoke tight. All holes in the floor slab at abandoned floor outlets, etc. will be filled with solid concrete.

7.4 Salvage and Waste Removal

a. All rubbish, waste and debris shall be neatly and cleanly removed from the Building by Contractors daily unless otherwise approved by the Property Manager. The Building's trash compactor shall not be used for construction or other debris. For any demolition and debris, each Contractor must make arrangements with the Property Manager for the scheduling and location of an additional dumpster to be supplied at the cost of the Tenant engaging such Contractor. Where, in the opinion of the Property Manager, such arrangements

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are not practical, such Contractors will make alternative arrangements for removal at the cost of the Tenant engaging such Contractors.

b. Toxic or flammable waste is to be properly removed daily and disposed of in full accordance with all applicable laws, ordinances, rules and regulations.

c. Contractors shall, prior to removing any item (including, without limitation, building standard doors, frames and hardware, light fixtures, ceiling diffusers, ceiling exhaust fans, sprinkler heads, fire horns, ceiling speakers and smoke detectors) from the Building, notify the Property Manager that it intends to remove such item. At the election of Property Manager, Contractors shall deliver any such items to the Property Manager. Such items will be delivered, without cost, to an area designated by the Property Manager which area shall be within the Building or the complex in which the Building is located.

8. PAYMENT OF CONTRACTORS

Tenant shall promptly pay the cost of all Tenant Work so that Tenant's premises and the Building shall be free of liens for labor or materials. If any mechanic's lien is filed against the Building or any part thereof which is claimed to be attributable to the Tenant, its agents, employees or contractors, Tenant shall give immediate notice of such lien to the Landlord and shall promptly discharge the same by payment or filing any necessary bond within 10 days after Tenant has first notice of such mechanic's lien.

9. CONTRACTORS INSURANCE

Prior to commencing any Tenant Work, and throughout the performance of the Tenant Work, each Contractor shall obtain and maintain insurance in accordance with Exhibit A attached hereto. Each Contractor shall, prior to making entry into the Building provide Landlord with certificates that such insurance is in full force and effect.

10. SUBMISSIONS UPON COMPLETION

a. Upon completion of any Tenant Work, Tenant shall submit to Landlord a permanent certificate of occupancy and final approval of any other governmental agencies having jurisdiction.

b. A properly executed air balancing report, signed by a professional engineer, shall be submitted to Landlord upon completion of all mechanical work. Such report shall be subject to Landlord's approval.

c. Tenant shall submit to Landlord's Representative a final "as-built" set of sepia drawings as well as electronic "as-built" drawings in AutoCAD Release 12, DXF format.

11. ADJUSTMENT OF REGULATIONS

These Rules and Regulations may be amended from time to time in accordance with the reasonable judgment of Landlord.

12. CONFLICT BETWEEN RULES AND REGULATIONS AND LEASE

In the event of any conflict between the Lease and these rules and regulations, the terms of the Lease shall control.

EXHIBIT A

TO

CONSTRUCTION RULES AND REGULATIONS

INSURANCE REQUIREMENTS FOR CONTRACTORS

When Tenant Work is to be done by Contractors in the Building, the Tenant authorizing such work shall be responsible for including tin the contract for such work the following insurance and indemnity requirements to the extent that they are applicable. Insurance certificates must be received prior to construction. Landlord shall be named as an additional insured party on all certificates.

INSURANCE

Each Contractor and each Subcontractor shall, until the completion of the Tenant Work in question, procure and maintain at its expense, the following insurance coverages with companies acceptable to Landlord in the following minimum limits:

Workers' Compensation

(including coverage for Occupational Disease)

	Limit of Liability
Workers' Compensation	Statutory Benefits
Employer's Liability	$500,000

Comprehensive General Liability

(including Broad Form Comprehensive Liability Enhancement, Contractual Liability assumed by the Contractor and the Tenant under Article 15.3 of the Lease and Completed Operations coverage)

	Limit of Liability
Bodily Injury & Property Damage	$5,000,000 combined single limit

Comprehensive Automobile Liability

(including coverage for Hired and Non-owned Automobiles)

	Limit of Liability
Bodily Injury & Property Damage	$1,000,000 per occurrence

SUPPLEMENT TO RULES AND REGULATIONS FOR

DESIGN CONSTRUCTION OF TENANT WORK

FACT SHEET FOR UNIVERSITY PARK

1. PROPERTY MANAGER'S OFFICE

CONTACT(S): Jay Kiely, Property Manager
Robyn Arruda, Asst. Property Manager
Eddie Arruda, Chief Engineer

LOCATION: Forest City Management
38 Sidney Street
Cambridge, MA 02139

TELEPHONE NUMBER: (617) 494-9330

2. PERSONNEL, MATERIAL AND EQUIPMENT ACCESS

LOCATION OF LOADING DOCK:

NORMAL HOURS OF ACCESS: 7:30 A.M. TO 5:30 P.M.

ENTRANCES NOT AVAILABLE: All building lobbies.

3. USE OF ELEVATORS

LOCATION OF ELEVATORS: Specific locations of service elevators will be pointed out by the building staff.

NORMAL HOURS OF OPERATION: 7:30 A.M. to 5:30 P.M.

OVERTIME OPERATION CHARGES: $40.00 per hour

ELEVATORS NOT AVAILABLE: All passenger elevators.

4. SPECIAL CONDITIONS AND PRECAUTIONS

As University Park consists of multi-use buildings incorporating offices, retail and hotel suites, special care must be taken to control noise at all times.

All window blinds are to be removed prior to construction and replaced without damage immediately after completion of construction by the tenant and/or his contractor.

EXHIBIT G

FORM OF LETTER OF CREDIT

IRREVOCABLE STANDBY LETTER OF CREDIT NO.

DATE: , 200

BENEFICIARY:

APPLICANT:

AMOUNT: US$ ($ and 00/100 U.S. DOLLARS)

EXPIRATION DATE: , 200

LOCATION: AT OUR COUNTERS IN SKOKIE, ILLINOIS

DEAR SIR/MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. IN YOUR FAVOR AVAILABLE BY YOUR DRAFT IN THE FORM OF “ANNEX 1” ATTACHED DRAWN ON US AT SIGHT AND ACCOMPANIED BY THE FOLLOWING DOCUMENTS:

A DATED STATEMENT PURPORTEDLY SIGNED BY AN AUTHORIZED OFFICER OF THE BENEFICIARY ON BENEFICIARY’S LETTERHEAD READING AS FOLLOWS:

(A) THE AMOUNT REPRESENTS FUNDS DUE AND OWING TO US PURSUANT TO THE TERMS OF THAT CERTAIN LEASE BY AND BETWEEN , AS LANDLORD, AND , AS TENANT

OR

(B) HEREBY CERTIFIES THAT IT HAS RECEIVED NOTICE FROM THAT THE LETTER OF CREDIT NO. WILL NOT BE

RENEWED, AND THAT IT HAS NOT RECEIVED A REPLACEMENT OF THIS LETTER OF CREDIT FROM SATISFACTORY TO AT LEAST THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE OF THIS LETTER OF CREDIT.

THE LEASE MENTIONED IN THIS LETTER OF CREDIT IS FOR IDENTIFICATION PURPOSES ONLY AND IT IS NOT INTENDED THAT SAID AGREEMENT BE INCORPORATED HEREIN OR FORM PART OF THIS LETTER OF CREDIT.

DRAFT(S) AND DOCUMENTS MUST INDICATE THE NUMBER AND DATE OF THIS LETTER OF CREDIT.

THIS LETTER OF CREDIT SHALL BE AUTOMATICALLY EXTENDED FOR AN ADDITIONAL PERIOD OF ONE YEAR, WITHOUT AMENDMENT OR CONDITION, FROM THE PRESENT OR EACH FUTURE EXPIRATION DATE UNLESS AT LEAST NINETY (90) DAYS PRIOR TO THE THEN CURRENT EXPIRATION DATE WE NOTIFY YOU AND THE APPLICANT BY REGISTERED MAIL/OVERNIGHT COURIER SERVICE AT THE ABOVE ADDRESSES THAT THIS LETTER OF CREDIT WILL NOT BE EXTENDED BEYOND THE CURRENT EXPIRATION DATE.

THIS LETTER OF CREDIT MAY BE TRANSFERRED (AND THE PROCEEDS HEREOF ASSIGNED, WHICH ARE COLLECTIVELY REFERRED TO HEREAFTER AS A TRANSFER), AT THE EXPENSE OF THE APPLICANT (WHICH PAYMENT SHALL NOT BE A CONDITION TO ANY TRANSFER), ONE OR MORE TIMES BUT IN EACH INSTANCE TO A SINGLE BENEFICIARY AND ONLY IN THE FULL AMOUNT AVAILABLE TO BE DRAWN UNDER THE LETTER OF CREDIT. ANY SUCH TRANSFER MAY BE EFFECTED ONLY UPON PRESENTATION TO US, THE ISSUING BANK, AT THE BELOW SPECIFIED OFFICE, OF THE ATTACHED "EXHIBIT A" DULY COMPLETED AND EXECUTED BY THE BENEFICIARY AND ACCOMPANIED BY THE ORIGINAL LETTER OF CREDIT AND ALL AMENDMENTS), IF ANY. ANY TRANSFER OF THIS LETTER OF CREDIT MAY NOT CHANGE THE PLACE OF EXPIRATION OF THE LETTER OF CREDIT FROM OUR BELOW SPECIFIED OFFICE. EACH TRANSFER SHALL BE EVIDENCED BY OUR ENDORSEMENT ON THE REVERSE OF THE ORIGINAL LETTER OF CREDIT AND WE SHALL FORWARD THE ORIGINAL LETTER OF CREDIT TO THE TRANSFEREE.

ALL DEMANDS FOR PAYMENT SHALL BE MADE BY PRESENTATION OF THE DATED CERTIFICATION PRIOR TO A.M. TIME, ON A BUSINESS DAY AT OUR OFFICE (THE "BANK'S OFFICE") AT: , ATTENTION: STANDBY LETTER OF CREDIT SECTION OR BY FACSIMILE TRANSMISSION AT: ( ) ; AND SIMULTANEOUSLY UNDER TELEPHONE ADVICE TO: ( ) , ATTENTION: STANDBY LETTER OF CREDIT NEGOTIATION SECTION WITH ORIGINALS TO FOLLOW BY OVERNIGHT COURIER SERVICE.

PAYMENT AGAINST CONFORMING PRESENTATIONS HEREUNDER SHALL BE MADE BY BANK IN IMMEDIATELY AVAILABLE U.S. FUNDS DURING NORMAL BUSINESS HOURS OF THE BANK'S OFFICE WITHIN TWO (2) BUSINESS DAYS AFTER PRESENTATION NOTWITHSTANDING ANYTHING TO THE CONTRARY IN ARTICLE 13B OR ARTICLE 14(D)(1) OF THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS (1993 REVISION), INTERNATIONAL CHAMBER OF COMMERCE, PUBLICATION NO. 500

WE HEREBY CERTIFY THAT THIS IS AN UNCONDITIONAL AND IRREVOCABLE CREDIT AND AGREE WITH THE DRAWERS, ENDORSERS AND BONAFIDE HOLDERS THAT THE

DRAFTS DRAWN UNDER AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT SHALL BE DULY HONORED UPON PRESENTATION TO THE DRAWEE, IF NEGOTIATED ON OR BEFORE THE EXPIRATION DATE OF THIS CREDIT.

EXCEPT AS OTHERWISE EXPRESSLY STATED, THIS LETTER OF CREDIT IS SUBJECT TO THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS (1993 REVISION), INTERNATIONAL CHAMBER OF COMMERCE, PUBLICATION NO. 500.

AUTHORIZED SIGNATURE

AUTHORIZED SIGNATURE

ANNEX 1

BILL OF EXCHANGE

DATE:

AT SIGHT OF THIS BILL OF EXCHANGE PAY TO THE ORDER OF US DOLLARS (US $)

DRAWN UNDER

CREDIT NUMBER NO. **DATED**

TO:

Authorized Signature

EXHIBIT "A"

DATE:

TO: RE: STANDBY LETTER OF CREDIT
NO.
ISSUED BY

LADIES AND GENTLEMEN:

FOR VALUE RECEIVED, THE UNDERSIGNED BENEFICIARY HEREBY IRREVOCABLY TRANSFERS TO:

(NAME OF TRANSFEREE)

(ADDRESS)

ALL RIGHTS OF THE UNDERSIGNED BENEFICIARY TO DRAW UNDER THE ABOVE LETTER OF CREDIT UP TO ITS AVAILABLE AMOUNT AS SHOWN ABOVE AS OF THE DATE OF THIS TRANSFER.

BY THIS TRANSFER, ALL RIGHTS OF THE UNDERSIGNED BENEFICIARY IN SUCH LETTER OF CREDIT ARE TRANSFERRED TO THE TRANSFEREE. TRANSFEREE SHALL HAVE THE SOLE RIGHTS AS BENEFICIARY THEREOF, INCLUDING SOLE RIGHTS RELATING TO ANY AMENDMENTS, WHETHER INCREASES OR EXTENSIONS OR OTHER AMENDMENTS, AND WHETHER NOW EXISTING OR HEREAFTER MADE. ALL AMENDMENTS ARE TO BE ADVISED DIRECT TO THE TRANSFEREE WITHOUT NECESSITY OF ANY CONSENT OF OR NOTICE TO THE UNDERSIGNED BENEFICIARY.

THE ORIGINAL OF SUCH LETTER OF CREDIT IS RETURNED HEREWITH, AND WE ASK YOU TO ENDORSE THE TRANSFER ON THE REVERSE THEREOF, AND

FORWARD IT DIRECTLY TO THE TRANSFEREE WITH YOUR CUSTOMARY NOTICE OF TRANSFER.

SINCERELY,	SIGNATURE AUTHENTICATED
(BENEFICIARY'S NAME)	(Name of Bank)
SIGNATURE OF BENEFICIARY	(authorized signature)

EXHIBIT H

Expedited Dispute Resolution Procedure

Any dispute or determination by a party hereto which, pursuant to the terms of this Lease, may be resolved pursuant to this Exhibit I shall be undertaken in accordance with the following provisions:

(a) In the event of any such dispute, the complaining party (the "Claimant") shall serve upon the other party (the "Respondent") by registered mail or hand delivery a written demand for arbitration (the "Dispute Notice"), setting forth with particularity the nature of the dispute. The Claimant shall simultaneously serve any request (the "Document Request") for production of relevant documents from the Respondent. The service of such Dispute Notice and Document Request shall be effective upon receipt thereof. Failure to serve a Document Request shall constitute a waiver by the Claimant of any right to demand documents from the Respondent, except as provided in Subparagraph (c) below. The Dispute Notice shall also be delivered to the Boston office of the American Arbitration Association (the "AAA") which shall select an arbitrator to conduct the arbitration (hereinafter the "Arbitrator"), the choice of which shall be binding on the parties. If the Arbitrator believes he/she has a material conflict of interest with any of the parties, the AAA shall select an alternative Arbitrator within ten (10) business days of receipt of the Dispute Notice. If AAA shall cease to exist and/or shall decline to serve under this Lease as to all or any particular dispute submitted thereto for arbitration, or within ten (10) business days of receipt of a Dispute Notice, shall fail to select an Arbitrator, then, and in any such event, the parties shall mutually select an alternative arbitrator for their dispute(s) and, in the absence of agreement within a period of ten (10) business days, either party shall have the right, on notice to the other, to apply to the President of the Boston Bar Association for selection of an independent arbitrator.

(b) Response by Respondent. Within ten (10) business days of receipt of a Dispute Notice and Document Request, the Respondent shall serve a detailed written response to the Dispute Notice, including any arbitrable counterclaims, and shall produce all non privileged documents called for in the Document Request. At the same time, Respondent shall serve any Document Request on Claimant, failing which Respondent shall be deemed to have waived any right to demand documents from Claimant. Within two (2) business days of delivery of the response, all undisputed amounts shall be paid by Respondent by wire transfer.

(c) Response by Claimant. Within ten (10) business days of receipt of such written response, the Claimant shall serve a reply to any counterclaims asserted by Respondent and shall produce all non privileged documents requested by Respondent. At the same time, the Claimant may serve a second Document Request limited to documents relevant to Respondent's counterclaim. Within two (2) business days of delivery of the reply to any counterclaims, all undisputed amounts shall be paid by the Claimant by wire transfer.

(d) Response by Respondent. Respondent shall produce all non privileged documents called for in any such second Document Request within ten (10) business days of service thereof.

(e) Appearance Before Arbitrator. Within thirty five (35) business days of service of the Dispute Notice, any arbitrable dispute shall be submitted to the Arbitrator, whose decision shall be final, binding and non appealable, and may be entered and enforced as a judgment by any court of competent jurisdiction. The Arbitrator shall consider and determine only matters properly subject to arbitration pursuant to this Lease.

The Arbitrator shall, in consultation with the parties, establish such further procedures, including hearings, as he or she deems appropriate, provided, however, that a decision of the dispute (including counterclaims) shall be rendered no later than sixty (60) business days after service of the Dispute Notice.

(f) Final Decision; Fees and Expenses. The Arbitrator's decision shall be in writing, and shall include findings of fact and a concise explanation of the reasons for the decision. The decision shall be delivered to the parties immediately. The Arbitrator's fees and expenses shall be borne by one or both of the parties in accordance with the direction of the Arbitrator, who shall be guided in such determination by the results of the arbitration. If any party refuses to appear before the Arbitrator or to respond as required in subparagraphs (a) through (e) above, the Arbitrator shall decide the matter as by default against the non appearing party, and such decision shall be final, binding and non appealable to the same extent as a decision rendered with the full participation of such party.

Exhibit 10.5

June 12, 2014

Jeffrey W. Albers

Re: Offer of Employment

Dear Jeff:

Blueprint Medicines Corporation (the "Company") is pleased to confirm its offer to employ you as the Company's Chief Executive Officer ("CEO"). As CEO you will report to the Company's Board of Directors (the "Board").

Your effective date of hire will be July 21, 2014, unless another date is agreed to by you and the Company (the "Start Date"). This is a full-time role and it is understood and agreed that you will not engage in any other employment, consulting or other business activities (whether full-time or part-time) during your employment with the Company without prior written consent from the Board. Subject to applicable procedural requirements, you will be elected to serve as a member of the Board, effective as of the Start Date and shall resign from the Board upon the ending of your employment.

Your initial annual base salary for this position will be at the rate of $375,000 per year, payable semi-monthly in accordance with the Company's normal pay schedule. Your base salary is subject to annual performance review and upward adjustment. The Company will not have the right to reduce your annual base salary without your written consent.

You will be eligible to participate each year in the Company's annual bonus plan, as approved by the Board or its Compensation Committee. Your target performance bonus will be 40% of your annual base salary. Your actual bonus will based upon achievement of both corporate and individual goals, as determined by the Board annually after consultation with you. If your termination occurs on or after December 31st of any calendar year in which you worked, but before your annual performance bonus for that year is paid, then you will be paid such annual performance bonus.

Additionally, you will receive a one-time sign on bonus of $75,000 which reflects your 12 month commitment to the Company. If you resign without Good Reason (as defined below) from your employment or if you are terminated by the Company for Cause (as defined below) prior to the one year anniversary of the Start Date, you must repay the sign on-bonus. You authorize the Company to deduct all or part of the sign on bonus from any then unpaid compensation, subject to applicable law, and you agree to pay any remainder within ten days of the date of termination. The Company agrees that the amount subject to repayment above will be reduced on a pro-rata basis, based on the number of full weeks of completed employment within the one-year period following the Start Date.

Subject to the approval of the Board, in connection with the commencement of your employment, the Board will grant you an option to purchase 3,156,700 shares of the Company's common stock (the "Option"), which equals 4% of the Company's capital stock on a fully diluted basis as of the date of this Agreement. The Option will be granted following the Start Date. The exercise price of the Option will be at least equal to the fair market value of the Company's common stock on the date of grant, and the Board may elect to seek a third party valuation of such fair market value, which could delay the date that the Option is granted. The Option will be subject to the terms and conditions of the Company's then-current stock option plan and form of stock option agreement (the "Equity Documents") including with respect to vesting and exercise rights. The Option will vest as follows: 25% of the shares will vest on the first anniversary of the Start Date, and following that, the remaining 75% of the Shares shall vest in 36 equal monthly installments following the first anniversary of the Start Date. Vesting is contingent on your continued service to the Company as set forth in the Equity Documents.

You will be eligible to participate in the Company's employee benefits plans, subject to the terms and conditions of those plans. The Company's plans include Medical and Dental Insurance Programs as well as the Life, AD&D, Short and Long Term Disability Plans. Currently the Company pays for 80% of the premium cost and 100% of the deductible for the medical plan, 100% of the cost of Life and AD&D insurance as well as Short and Long Term Disability plans. The Company's employee benefit plans are subject to change.

You will accrue 15 paid vacation days per year on a prorated basis. You will be entitled to paid holidays annually in accordance with the Company's holiday schedule.

It is understood that you are an "at-will" employee. You are not being offered employment for a definite period of time, and either you or the Company may terminate the employment relationship at any time and for any reason, with or without Cause or prior notice and without additional compensation to you, other than as provided below.

Notwithstanding the foregoing, in the event that the Company terminates your employment without Cause or you resign for Good Reason, then, subject to you entering into and complying with the Release Agreement in the form substantially similar to the form attached hereto as Exhibit A, you will be entitled to a severance pay in an amount equal to: (i) twelve months of your then base salary as of the date of termination, such amount to be paid in equal installments over a twelve (12) month period after the date of your termination in accordance with the Company's usual payroll practices and periods, subject to applicable taxes and withholding, and (ii) payment for twelve (12) months of monthly COBRA premiums at the same rate as the Company pays for active employees for you and your eligible dependents at the Company's expense, subject to applicable COBRA terms and in compliance with applicable non-discrimination or other requirements under the Internal Revenue Code, as amended (the "Code"), the Patient Protection and Affordable Care Act, or the Health Care and Education Reconciliation Act. In addition, you will be paid a pro-rata portion of your annual performance bonus as determined by the Board for the year in which in the termination occurs, in an amount equal to your annual performance bonus as determined by the Board multiplied by a fraction, the denominator of which is 52 and the numerator of which is the amount of full weeks in which you were employed in the year in which your termination occurs. Any severance payments or benefits described above or below in clause (2) of the next paragraph will be paid or commence,

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as the case may be, on the thirtieth (30th) day following your separation from service, with the first payment under subsection (i) to include the amounts that otherwise would have been paid to you during such 30-day period.

If either (i) the Company terminates your employment without Cause, or (ii) you resign from your employment with Good Reason, in either event within twelve (12) months following the consummation of a Sale Event, then, in addition to the benefits and payments to which you are entitled pursuant to a termination without Cause or a resignation for Good Reason, then (1) all then outstanding stock options and other stock-based awards with time-based vesting held by you as of the date of termination will immediately accelerate and become fully exercisable or nonforfeitable as of date of termination; provided that, if the Sale Event is consummated before the third anniversary of the Start Date, any such acceleration if you resign for Good Reason based on clause (iii) of such definition within six (6) months of the consummation of such Sale Event shall not be 100% as provided above but instead will be 50% of the outstanding stock options and other stock-based awards with time-based vesting (with such 50% acceleration based on the original grant amount and not on the yet unvested options or awards), it being understood that if you resign for Good Reason based on clause (iii) of such definition more than six (6) months after the consummation of such Sale Event then this proviso will not apply and the 100% acceleration as set forth above will apply, and (2) the Company will pay you a lump sum amount equal to one (1) times your target annual performance bonus.

For purposes of this letter agreement:

"Cause" means:

(i) your dishonest statements or acts with respect to the Company or any Affiliate of the Company, or any current or prospective customers, suppliers vendors or other third parties with which such entity does business that results in or is reasonably anticipated to result in material harm to the Company; (ii) your conviction of (A) a felony or (B) any misdemeanor involving moral turpitude, deceit, dishonesty or fraud; (iii) your failure to perform your assigned duties and responsibilities to the reasonable satisfaction of the Company which failure continues, in the reasonable judgment of the Company, for thirty (30) days after written notice given to you by the Company describing such failure in reasonable detail; (iv) your gross negligence, willful misconduct or insubordination with respect to the Company that results in material harm to the Company; or (v) your material violation of any provision of any agreement(s) between you and the Company relating to noncompetition, nonsolitation, nondisclosure and/or assignment of inventions that results in or is reasonably anticipated to result in material harm to the Company.

"Good Reason" means:

(i) a material diminution in your base salary, (ii) a change of more than 50 miles in the geographic location at which you provides services to the Company, (iii) a material diminution in your authority, duties or responsibilities, or (iv) any action or inaction that constitutes a material breach of an applicable employment agreement by the Company, so long as you provide at least ninety (90) days' notice to the Company following the occurrence of any such event and, if such event is curable, the Company fails to cure such event within thirty (30) days thereafter. "Sale Event" means:

the consummation of (i) the dissolution or liquidation of the Company, (ii) the sale, lease, transfer, exclusive license, or other disposition of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (iii) a merger, reorganization or consolidation pursuant to which the holders of the Company's outstanding voting power immediately prior to such transaction do not own a majority of the outstanding voting power of the surviving or resulting entity (or its ultimate parent, if applicable), (iv) the acquisition of all or a majority of the outstanding voting stock of the Company in a single transaction or a series of related transactions by a Person or group of Persons, (v) a Deemed Liquidation Event (as defined in the Company's Certificate of Incorporation (as may be amended, restated or otherwise modified from time to time)), or (vi) any other acquisition of the business of the Company, as determined by the Board; provided, however, that the Company's Initial Public Offering, any subsequent public offering or another capital raising event, or a merger effected solely to change the Company's domicile will not constitute a "Sale Event." "Sale Event" will be interpreted, if applicable, in a manner, and limited to the extent necessary, so that it will not cause adverse tax consequences under Section 409A of the Code.

All payments described herein are subject to legally required tax withholdings.

Please note the following rights and obligations with respect to Section 409A of the Code:

- If any amount (including imputed income) to be paid to you pursuant to this document as a result of your termination of employment is "deferred compensation" subject to Section 409A of the Code, and if you are a "Specified Employee" (as defined under Section 409A of the Code) as of the date of your termination of employment hereunder, then, to the extent necessary to avoid the imposition of excise taxes or other penalties under Section 409A of the Code, the payment of benefits, if any, scheduled to be paid by the Company to you hereunder during the first six (6)-month period following the date of a termination of employment hereunder will not be paid until the date which is the first business day after six (6) months have elapsed since your termination of employment for any reason other than death. Any deferred compensation payments delayed in accordance with the terms of this section will be paid in a lump sum on the first business day after six (6)

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months have elapsed since your termination of employment. Any other payments will be made according to the original schedule provided for herein.

- If any of the benefits set forth in this document are "deferred compensation" under Section 409A of the Code, then any termination of employment triggering payment of such benefits must constitute a "separation from service" under Section 409A of the Code before distribution of such benefits can commence. To the extent that the termination of your employment does not constitute a "separation from service" under Section 409A of the Code (as the result of further services that are reasonably anticipated to be provided by you to the Company at the time your employment terminates), any benefits payable that constitute "deferred compensation" under Section 409A of the Code will be delayed until after the date of a subsequent event constituting a "separation from service" under Section 409A of the Code. For purposes of clarification, this paragraph will not cause any forfeiture of benefits on your part, but will only act as a delay until such time as a "separation from service" occurs.
- It is intended that each installment of the payments and benefits provided hereunder will be treated as a separate "payment" for purposes of Section 409A of the Code. Neither the Company nor you will have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A of the Code. This document will be interpreted and at all times administered in a manner that avoids the inclusion of compensation in income under Section 409A(a)(1) of the Code. For purposes of clarification, this section will be a rule of construction and interpretation and nothing in this section will cause a forfeiture of benefits on the part of you.

- The Company will reimburse you for business expenses related to the performance of your duties and responsibilities for the Company. Any reimbursements or direct payment of expenses will be made or provided in accordance with the requirements of Section 409A of the Code including, where applicable, the requirement that (i) any reimbursement is for expenses incurred during your lifetime (or during a shorter period of time specified by policy or agreement), (ii) the amount of expenses eligible for reimbursement during a calendar year may not affect the expenses eligible for reimbursement in any other calendar year, (iii) the reimbursement of an eligible expense will be made no later than the last day of the calendar year following the year in which the expense is incurred, and (iv) the right to reimbursement or in kind benefits is not subject to liquidation or exchange for another benefit.
- Any earned bonus will be paid to you within seventy-four (74) days following the end of the taxable year (of you, or the Company, whichever is later) in which such bonus is earned by you and deemed vested for purposes of Section 409A of the Code.

The Company will reimburse you for attorneys' fees incurred in the review and negotiation of this Agreement, up to a maximum amount of $5,000, provided that you submit appropriate documentation of such fees within thirty (30) days of your Start Date, and subject to the terms for reimbursements set forth in this document and applicable Company policies.

As a condition of your employment, you must enter into and abide by the Company's Non-Solicitation, Non-Competition, Confidentiality and Assignment Agreement (the "Employee

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Agreement"). Please sign and return this Employee Agreement along with a signed copy of this offer letter.

In making this offer, the Company understands, and in accepting it you represent that you are not under any obligation to any former employer or any person or entity which would prevent, limit, or impair in any way the performance by you of your duties as an employee of the Company.

The Immigration Reform and Control Act requires employers to verify the employment eligibility and identity of new employees. You will be required to complete a Form 1-9 which will be provided to you before the Start Date. Please bring the appropriate documents listed on that form with you when you report for work. We will not be able to employ you if you fail to comply with this requirement.

This letter agreement and the Employee Agreement and Equity Documents referenced above constitute the complete agreement between you and the Company, contain all of the terms of your employment with the Company and supersede any prior agreements, representations or understandings (whether written, oral or implied) between you and the Company. This letter agreement may not be amended or modified, except by an express written agreement signed by both you and a duly authorized officer of the Company, although your job duties, title, reporting relationship, compensation and benefits may change from time to time, at the Company's option.

Please indicate your acceptance of this offer by signing and returning the enclosed copy of this letter no later than 5:00 pm on Friday, June 13, 2014.

You may sign, scan, and email the letter to Susan O'Connor at Blueprint Medicines, Human Resources, soconnor@blueprintmedicines.com.

We look forward to your joining the Company and are pleased that you will be working with us.

Very truly yours,

Blueprint Medicines Corporation

/s/ Daniel S. Lynch
Daniel S. Lynch
Executive Chairman

Accepted and Agreed:

/s/ Jeffrey W. Albers
Jeffrey W. Albers

May 29, 2014
Date

[FORM OF] RELEASE AGREEMENT

WHEREAS, Blueprint Medicines Corporation ("the "Company") and Jeffrey Albers (the "Executive" and together, the "Parties"), entered into an Offer of Employment dated June 12, 2014 (the "Employment Agreement").

WHEREAS, terms herein with initial capitalization that are not otherwise defined in this Release have the meanings set forth in the Employment Agreement.

WHEREAS, [the Company has elected to end Executive's employment and to treat it as a Termination without Cause pursuant to the Employment Agreement] or [the Executive has resigned for Good Reason], effective DATE (the "Date of Termination").

WHEREAS, this is the Release Agreement referenced in the Employment Agreement (the "Release Agreement" or the "Release") .

1. Severance Pay. As consideration for the Executive's agreement to this Release, the Company will provide Executive with the severance pay set forth in the Employment Agreement.

2. Resignation from Director and Officer Positions. The Executive confirms that he is resigning from any and all other positions that he holds with the Company or any of its affiliates as an officer, Board member, or otherwise effective on the Date of Termination and shall sign any documents that the Company reasonably requests to fully effectuate the resignations.

3. Release of Claims. The Executive, for himself and his heirs, assigns, executors and administrators in all of his capacities, including, but not limited to, his capacity as an individual, shareholder, trustee or otherwise, voluntarily releases and forever discharges the Company, all of its affiliates and related entities and each of its and their predecessors, successors, assigns, and current and former members, partners, directors, officers, employees, stockholders, representatives, attorneys, agents, and all persons acting by, though, under or in concert with any of the foregoing (any and all of whom or which are hereinafter referred to as the "Releasees"), from any and all charges, complaints, claims, liabilities, obligations, promises, agreements, controversies, damages, actions, causes of action, suits, rights, demands, costs, losses, debts and expenses (including attorney's fees and costs actually incurred), of any nature whatsoever, known or unknown (collectively, "Claims") that as of the date when Executive signs this Release, the Executive now has, owns or holds, or claims to have, own, or hold, or that he at any time had, owned, or held, or claimed to have had, owned, or held against any Releasee. This general release of Claims includes, without implication of limitation, the complete release of all Claims:

· relating to the Executive's employment by and termination from employment with the Company;

· of wrongful discharge;
· of breach of contract;
· of retaliation or discrimination under federal, state or local law (including, without limitation, Claims of age discrimination or retaliation under the Age Discrimination in Employment Act, Claims of disability discrimination or retaliation under the Americans with Disabilities Act, Claims of discrimination or retaliation under Title VII of the Civil Rights Act of 1964, Massachusetts General Laws Chapter 151B, and any Claims of discrimination or retaliation under state law);
· or wage and hour violations (including, without limitation, Claims under the Massachusetts Payment of Wages Law (Massachusetts General Laws Chapter 149, §§ 148, 150), Massachusetts General Laws Chapter 149 in its entirety, and Massachusetts General Laws Chapter 151 in its entirety (including but not limited to the minimum wage and overtime provisions));
· under any other federal or state statute, to the fullest extent that Claims may be released;
· of defamation, deceit, misrepresentation, or other torts;
· of violation of public policy;
· for salary, bonuses, vacation pay or any other compensation or benefits; and
· for damages or other remedies of any sort, including, without limitation, compensatory damages, punitive damages, injunctive relief and attorney's fees.

4. Return of Property. The Executive represents that he has returned to the Company all Company property, including, without limitation, computer equipment, software, keys and access cards, credit cards, files and any documents (including computerized data and any copies made of any computerized data or software) containing information concerning the Company, its business or its business relationships. After returning all Company property, Executive shall, upon written instruction by the Company, delete and finally purge any duplicates of files or documents that may contain Company or customer information from any non-Company computer or other device that remains Executive's property after the Date of Termination.

5. Nondisparagement. Executive agrees not to, directly or indirectly, deprecate, impugn, or otherwise make any remarks that would tend to or could be construed to disparage the Company, or its officers, directors or employees, or its or their reputation, nor will Executive assist any other person, firm or company in engaging in such activities. Notwithstanding the above, nothing in this Section shall interfere with Employee's ability to comply with legal process or the requirements of applicable federal or state laws or regulations.

6. Statutory Benefit Rights. Nothing in this Release is intended to release or waive the Executive's right to COBRA or unemployment insurance benefits.

7. Non-Admission. Nothing in this Release shall be construed as an admission by the Company.

8. Ongoing Obligations of the Executive; Enforcement Rights. The Executive reaffirms his ongoing obligations and recognizes the Company's enforcement rights under the Company's Non-Solicitation, Non-Competition, Confidentiality and Assignment Agreement, the terms of which are incorporated by reference into this Release.

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9. No Assignment. The Executive represents that he has not assigned to any other person or entity any Claims against any Releasee.

10. Right to Consider and Revoke Release. The Executive acknowledges that he has been given the opportunity to consider this Release for twenty-one (21) days from the day he receives it (the "Consideration Period") and any changes to this Release shall not extend or otherwise affect the original Consideration Period. If the Executive signs this Release within less than twenty-one (21) days, he acknowledges that such decision was entirely voluntary and that he had the opportunity to consider this Release until the end of the Consideration Period. To accept this Release, the Executive shall deliver a signed Release to [name] within the Consideration Period. For a period of seven (7) days from the date when the Executive executes this Release (the "Revocation Period"), he shall retain the right to revoke this Release by written notice that is received by XXX on or before the last day of the Revocation Period. This Release shall take effect only if it is executed within the Consideration Period as set forth above and if it is not revoked pursuant to the preceding sentence. If those conditions are satisfied, this Release shall become effective and enforceable on the date immediately following the last day of the Revocation Period ("Effective Release Date").

11. Termination or Suspension of Severance Payments. The Executive acknowledges that his right to the Severance Benefits is conditional on his compliance with the Severance Conditions. Consistent with this, if the Executive fails to comply with any of the terms of this Release, in addition to any other legal or equitable remedies it may have for such breach, the Company shall have the right to terminate or suspend severance payments. The termination or suspension of those payments in the event of such breach by the Executive shall not affect the ongoing applicability of the terms of this Release.

12. Tax Treatment. The Company shall undertake to make deductions, withholdings and tax reports with respect to payments and benefits under this Agreement to the extent that it reasonably and in good faith determines that it is required to make such deductions, withholdings and tax reports. Payments under this Agreement shall be in amounts net of any such deductions or withholdings. Nothing in this Agreement shall be construed to require the Company to make any payments to compensate Executive for any adverse tax effect associated with any payments or benefits or for any deduction or withholding from any payment or benefit.

13. Other Terms.

(a) Legal Representation; Review of Release. The Executive acknowledges that he has been advised to discuss all aspects of this Release with his attorney, that he has carefully read and fully understands all of the provisions of this Release and that he is voluntarily entering into this Release.

(b) Binding Nature of Release. This Release shall be binding upon the Executive and upon his heirs, administrators, representatives and executors.

(c) Modification of Release; Waiver. This Release may be amended, only upon a written agreement executed by the Executive and a duly authorized officer of the Company.

(d) Severability. If at any future time it is determined by an arbitrator or court of competent jurisdiction that any covenant, clause, provision or term of this Release is illegal, invalid or unenforceable, the remaining provisions and terms of this Release shall not be affected thereby and the illegal, invalid or unenforceable term or provision shall be severed from the remainder of this Release. In the event of such severance, the remaining covenants shall be binding and enforceable.

(e) Governing Law and Interpretation. This Release shall be deemed to be made and entered into in the Commonwealth of Massachusetts and shall in all respects be interpreted, enforced and governed under the laws of Massachusetts, without giving effect to the conflict of laws provisions of Massachusetts law. The language of all parts of this Release shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against either of the Parties.

(f) Entire Agreement; Absence of Reliance. This Agreement constitutes the entire agreement regarding the termination of Executive's employment with the Company and supersedes any previous agreements and understandings between the parties, except the Company's equity incentive plans and related agreements, the Employment Agreement [NAME OTHER AGREEMENTS IN EFFECT AT THAT TIME]. The Executive acknowledges that he is not relying on any promises or representations by the Company or its agents, representatives or attorneys of either of them regarding any subject matter addressed in this Release.

(g) Assignment; Successors and Assigns, etc. Neither the Company nor the Executive may make any assignment of this Agreement or any interest herein, by operation of law or otherwise, without the prior written consent of the other party; provided that the Company may assign its rights under this Agreement without the consent of the Executive in the event that the Company shall effect a reorganization, consolidate with or merge into any other corporation, partnership, organization or other entity, or transfer all or substantially all of its properties or assets to any other corporation, partnership, organization or other entity. This Agreement shall inure to the benefit of and be binding upon the Company and the Executive, their respective successors, executors, administrators, heirs and permitted assigns.

(h) Counterparts. This Agreement may be executed in any number of counterparts, including by facsimile or pdf, each of which when so executed and delivered shall be taken to be an original, but all of which together shall constitute one and the same document.

So agreed by the Executive.

Jeffrey W. Albers _____ Date _____

BLUEPRINT MEDICINES CORPORATION

[Name] _____ Date _____
[Position]

August 1, 2013

Kyle D. Kuvalanka

Re: Offer of Employment

Dear Kyle:

Blueprint Medicines Corporation (the "Company") is pleased to confirm its offer to employ you as Chief Business Officer (CBO). As CBO you will be reporting to the Interim Chief Executive Officer, Alexis Borisy.

Your effective date of hire as a regular, full-time employee (the "Start Date") will be no later than September 16, 2013.

Your initial annual base salary for this position will be $330,000, payable semi-monthly in accordance with the Company's normal pay schedule. All payments are subject to legally required tax withholdings.

You will be eligible to participate each year in any annual bonus plan adopted by the Company, and the Company shall adopt and implement such a plan, if reasonable in light of financial, business and other circumstances and factors — at the discretion of the Board of Directors. Your target performance bonus will be 25% of your annual salary, based upon achievement of both corporate and individual goals, as agreed to between you and the CEO. All payments are subject to legally required tax withholdings.

Additionally, you will receive a one-time sign on bonus of $50,000 which reflects your 12 month commitment to the Company. Should you decide to leave Blueprint Medicines within the first year of your employment, you will be expected to repay the bonus according to the Company's policy. All payments are subject to legally required tax withholdings.

Subject to the approval of the Board of Directors of the Company (the "Board"), in connection with the commencement of your employment, the Board will grant you an option to purchase 750,000 shares of the Company's common stock (the "Option"). The Option will be granted following the commencement of your employment. The exercise price of the Option will be at least equal to the fair market value of the Company's common stock on the date of grant, and the Board of Directors may elect to seek a third party valuation of such fair market value, which could delay the date that the Option is granted. The Option will be subject to the terms and

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conditions of the Company's then-current stock option plan and form of stock option agreement. These options will vest as follows: one quarter of the shares will vest on the first anniversary of the Start Date, and following that, 1/48th of the shares will vest on a monthly basis, in arrears. Vesting is contingent on your continued full-time employment with the Company.

You will be eligible to participate in the Company's Medical and Dental Insurance Programs as well as the Life, AD&D, Short and Long Term Disability Plans. The company pays for 80% of the premium cost and 100% of the deductible for the medical plan, 100% of the cost of Life and AD&D insurance as well as Short and Long Term Disability plans. You will accrue 15 paid vacation days each year for the first 5 years of service and receive 12 paid holidays annually in accordance with the company holiday schedule.

It is understood that you are an "at-will" employee. You are not being offered employment for a definite period of time, and either you or the Company may terminate the employment relationship at any time and for any reason, with or without cause or prior notice and without additional compensation to you.

The Company may terminate your employment at any time upon written notice to you. In the event that the Company terminates your employment for any reason (other than Cause (as defined below)), then, subject to the condition precedent of your execution and delivery of a standard form general release of the Company to be delivered to you at the time of your termination, you will be entitled to a severance payment in an aggregate amount equal to twelve months of your then base salary as of the date of termination, such amount to be paid in equal installments over a twelve (12) month period after the date of your termination in accordance with the Company's usual payroll practices and periods, subject to applicable taxes and withholding.

For purposes of this letter agreement, "Cause" means (i) your material breach of this letter agreement or any other agreement between the Company and you (including the NDA and Non-Competition Agreement (as defined below), (ii) your material failure to adhere to any policy of the Company generally applicable to employees of the Company, (iii) your appropriation (or attempted appropriation) of a business opportunity of the Company, including attempting to secure or securing any personal profit in connection with any transaction entered into on behalf of the Company, (iv) your misappropriation (or attempted misappropriation) of any of the Company's funds or property, (v) your conviction of, or the entering of a guilty plea or plea of no contest with respect to, a felony, the equivalent thereof, or of a lesser crime having as its predicate element fraud, dishonesty or misappropriation, (vi) your willful misconduct or your continued and willful failure or refusal to perform any material duties reasonably requested by the executive of the Company to whom you report, the Chief Executive Officer of the Company or the board of directors, (vii) your engaging in bad faith or gross negligence in the performance of your duties for the Company, (viii) other behavior that is materially injurious to the Company (whether from a monetary perspective or otherwise), and (ix) your intentional commission of an act constituting fraud, embezzlement, breach of any fiduciary duty owed to the Company or its stockholders or other material dishonesty with respect to the Company, in each case as determined in good faith by the board of directors of the Company; provided, however, that in the case of conduct described in clauses (i) and (ii) hereof, such conduct shall not constitute "Cause" unless (a) the Company shall have given you written notice setting forth with specificity

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(i) the conduct deemed to constitute "Cause," (ii) reasonable action that would remedy the objectionable conduct, and (iii) a reasonable time (not less than ten (10) business days) within which you may taken such remedial action, and (b) you shall not have taken such specified remedial action within such specified

reasonable time.

Your normal place of work will be Cambridge, MA. Enclosed for your review is a "Non-Solicitation, Non-Competition, Confidentiality and Assignment Agreement" (the "Agreement").

This offer of employment is conditioned on your willingness to sign and abide by the terms of the Agreement. You will be expected to sign the Agreement before your designated start date with the Company.

In making this offer, the Company understands, and in accepting it you represent that you are not under any obligation to any former employer or any person or entity which would prevent, limit, or impair in any way the performance by you of your duties as an employee of the Company.

The Immigration Reform and Control Act requires employers to verify the employment eligibility and identity of new employees. You will be required to complete a Form I-9 which will be provided to you before the Start Date. Please bring the appropriate documents listed on that form with you when you report for work. We will not be able to employ you if you fail to comply with this requirement.

This letter agreement and the Agreement referenced above constitute the complete agreement between you and the Company, contain all of the terms of your employment with the Company and supersede any prior agreements, representations or understandings (whether written, oral or implied) between you and the Company. This letter agreement may not be amended or modified, except by an express written agreement signed by both you and a duly authorized officer of the Company, although your job duties, title, reporting relationship, compensation and benefits may change from time to time, at the Company's option.

Please indicate your acceptance of this offer by signing and returning the enclosed copy of this letter no later than 9:00am on Monday, August 5, 2013.

You may sign, scan, and email the letter to Susan O'Connor at Blueprint Medicines, Human Resources, soconnor@blueprintmedicines.com.

We look forward to your joining the Company and are pleased that you will be working with us.

Very truly yours,

Blueprint Medicines Corporation

/s/ Alexis A. Borisy
Alexis A. Borisy
Interim CEO
Partner, Third Rock Ventures, LLP

Accepted and Agreed:

/s/ Kyle D. Kuvalanka .
Kyle D. Kuvalanka

August 1, 2013 .
Date

November 22, 2011

Christoph Lengauer, Ph.D., MBA

Re: Revised Offer of Employment

Dear Christoph:

Blueprint Medicines Corporation (the "Company") is pleased to confirm its offer to employ you as Chief Scientific Officer (CSO). As CSO you will be reporting to the Chief Executive Officer (CEO), Chris Varma. (As you know, in the future a permanent CEO will be hired by the Company and you will be an active participant in this process.)

Your effective date of hire as a regular, full-time employee (the "Start Date") will be January 2, 2012

In the role of CSO, you will:

- Formulate the Company's scientific strategy, in the context of the Company's overall business plan, and drive the strategic direction of Blueprint Medicines' research platform, projects, and programs in collaboration with the senior management team.
- Identify new targets, programs, and technologies — and assess their potential to complement Blueprint Medicines' assets and enhance the company's pathway to success.
- Represent Blueprint Medicines internally and externally in scientific, financial and business communities.
- Establish and maintain collaborations with academia as well as industry partners. Actively assist in seeking project and/or technology alliances with appropriate partners to enhance/expedite the development of the company's assets.
- Effectively identify, recruit and develop a world class scientific team, ensuring a culture that is capable of retaining and optimizing the best talent.
- Lead the Company's scientific team as well as the Scientific Advisory Board.

Your compensation for this position will be at the rate of $360,000 year, payable semi-monthly in accordance with the Company's normal pay schedule. All payments are subject to legally required tax withholdings. You will be eligible to participate each year in any annual bonus plan adopted by the Company, and the Company shall adopt and implement such a plan, if reasonable in light of financial, business and other circumstances and factors — at the discretion of the Board of Directors. Until then and for 2012, your target performance bonus will be 25% of your annual compensation, based upon achievement of both corporate and individual goals, as agreed to between you and the CEO.

Additionally, you will receive a one-time sign on bonus of $50,000 which reflects your 12 month commitment to the Company. Should you decide to leave Blueprint Medicines within the first year of your employment, you will be expected to repay the bonus according to the Company's policy. All payments are subject to legally required tax withholdings.

Blueprint Medicines acknowledges that you currently maintain a residence in France. The Company will provide you with a one-time Relocation Assistance Payment in the form of a one-time payment of $10,000 which will be paid to you so that you are able to move your personal belongings from France to Massachusetts. This payment will be subject to customary deductions and withholdings as required by law. Should you voluntarily leave the Company, other than for death or disability, within 12 months of receiving this Payment, you will be obligated to return the gross amount of the payment to the company within 30 Days of your departure date.

Subject to the approval of the Board of Directors of the Company (the "Board"), in connection with the commencement of your employment, the Board will grant you an option to purchase 750,000 shares of the Company's common stock (the "Option"). The Option will be granted following the commencement of your employment. The exercise price of the Option will be at least equal to the fair market value of the Company's common stock on the date of grant, and the Board of Directors may elect to seek a third party valuation of such fair market value, which could delay the date that the Option is granted. The Option will be subject to the terms and conditions of the Company's then-current stock option plan and form of stock option agreement. These options will vest as follows: one quarter of the shares will vest on the first anniversary of the Start Date, and following that, 1/48th of the shares will vest on a monthly basis, in arrears. Vesting is contingent on your continued full-time employment with the Company.

You will be eligible to participate in the Company's Medical and Dental Insurance Programs as well as the Life, AD&D, Short and Long Term Disability Plans. The company pays for 80% of the premium cost and 100% of the deductible for the medical plan, 100% of the cost of Life and AD&D insurance as well as Short and Long Term Disability plans. You will accrue 15 paid vacation days each year for the first 5 years of service and receive 12 paid holidays annually in accordance with the company holiday schedule.

It is understood that you are an "at-will" employee. You are not being offered employment for a definite period of time, and either you or the Company may terminate the employment relationship at any time and for any reason, with or without cause or prior notice and without additional compensation to you.

The Company may terminate your employment at any time upon written notice to you. In the event that the Company terminates your employment for any reason (other than Cause (as defined below)), then, subject to the condition precedent of your execution and delivery of a standard form general release of the Company to be delivered to you at the time of your termination, you will be entitled to a severance payment in an aggregate amount equal to twelve months of your then base salary as of the date of termination, such amount to be paid in equal installments over a twelve (12) month period after the date of your termination in accordance with the Company's usual payroll practices and periods, subject to applicable taxes and withholding.

For purposes of this letter agreement, "Cause" means (i) your material breach of this letter agreement or any other agreement between the Company and you (including the NDA and Non-Competition Agreement (as defined below), (ii) your material failure to adhere to any policy of the Company generally applicable to employees of the Company, (iii) your appropriation (or attempted appropriation) of a business opportunity of the Company, including attempting to secure or securing any personal profit in connection with any transaction entered into on behalf of the Company, (iv) your misappropriation (or attempted misappropriation) of any of the Company's funds or property, (v) your conviction of, or the entering of a guilty plea or plea of no contest with respect to, a felony, the equivalent thereof, or of a lesser crime having as its predicate element fraud, dishonesty or misappropriation, (vi) your willful misconduct or your continued and willful failure or refusal to perform any material duties reasonably requested by the executive of the Company to whom you report, the Chief Executive Officer of the Company or the board of directors, (vii) your engaging in bad faith or gross negligence in the performance of your duties for the Company, (viii) other behavior that is materially injurious to the Company (whether from a monetary perspective or otherwise), and (ix) your intentional commission of an act constituting fraud, embezzlement, breach of any fiduciary duty owed to the Company or its stockholders or other material dishonesty with respect to the Company, in each case as determined in good faith by the board of directors of the Company; provided, however, that in the case of conduct described in clauses (i) and (ii) hereof, such conduct shall not constitute "Cause" unless (a) the Company shall have given you written notice setting forth with specificity (i) the conduct deemed to constitute "Cause," (ii) reasonable action that would remedy the objectionable conduct, and (iii) a reasonable time (not less than ten (10) business days) within which you may taken such remedial action, and (b) you shall not have taken such specified remedial action within such specified reasonable time.

Your normal place of work will be Cambridge, MA. Enclosed for your review is a "Non-Solicitation, Non-Competition, Confidentiality and Assignment Agreement" (the "Agreement").

This offer of employment is conditioned on your willingness to sign and abide by the terms of the Agreement. You will be expected to sign the Agreement before your designated start date with the Company.

In making this offer, the Company understands, and in accepting it you represent that you are not under any obligation to any former employer or any person or entity which would prevent, limit, or impair in any way the performance by you of your duties as an employee of the Company.

The Immigration Reform and Control Act requires employers to verify the employment eligibility and identity of new employees. You will be required to complete a Form I-9 which will be provided to you before the Start Date. Please bring the appropriate documents listed on that form with you when you report for work. We will not be able to employ you if you fail to comply with this requirement.

This letter agreement and the Agreement referenced above constitute the complete agreement between you and the Company, contain all of the terms of your employment with the Company and supersede any prior agreements, representations or understandings (whether written, oral or implied) between you and the Company. This letter agreement may not be amended or modified, except by an express written agreement signed by both you and a duly authorized officer of the Company, although your job duties, title, reporting relationship, compensation and benefits may change from time to time, at the Company's option.

Please indicate your acceptance of this offer by signing and returning the enclosed copy of this letter no later than 9pm ET on Tuesday, November 22, 2011.

You may sign, scan, and email the letter to Susan O'Connor at Blueprint Medicines, Human Resources, soconnor@blueprintmedicines.com.

We look forward to your joining the Company and are pleased that you will be working with us.

Very truly yours,

/s/ Chris Varma
Chris Varma
President & Chief Executive Officer
Blueprint Medicines Corporation

Accepted and Agreed:

/s/ Christoph Lengauer .
Christoph Lengauer, Ph.D., MBA

November 22, 2011 .
Date

November 20, 2014

Anthony L. Boral PhD., M.D.

Re: Offer of Employment

Dear Anthony:

Blueprint Medicines Corporation (the "Company") is pleased to confirm its offer to employ you as the Company's Senior Vice President, Clinical Development, reporting to the Company's Chief Executive Officer.

Your effective date of hire will be on a date mutually agreed to by you and the Company on or before February 9, 2015. For purposes of this Agreement, the actual first day of your employment shall be the "Start Date". This is a full-time role and it is understood and agreed that you will not engage in any other employment, consulting or other business activities (whether full-time or part-time) during your employment with the Company without prior written consent from the CEO.

Your initial annual base salary for this position will be at the rate of $325,000 per year, payable semi-monthly in accordance with the Company's normal pay schedule.

You will be eligible to participate each year in the Company's annual bonus plan, as approved by the Board or its Compensation Committee. Your target performance bonus will be 25% of your annual base salary. Your actual bonus will based upon achievement of both corporate and individual goals, determined by the CEO annually after consultation with you.

Additionally, you will receive a one-time sign on bonus of $75,000 which reflects your 12 month commitment to the Company. If you resign from your employment or if you are terminated by the Company for Cause (as defined below) prior to the one year anniversary of the Start Date, you must repay the sign on-bonus. You authorize the Company to deduct all or part of the sign on bonus from any then unpaid compensation, subject to applicable law, and you agree to pay any remainder within ten days of the date of termination.

Subject to the approval of the Board, in connection with the commencement of your employment, the Board will grant you an option to purchase 500,000 shares of the Company's common stock (the "Option"). The Option will be granted following the Start Date. The exercise price of the Option will be at least equal to the fair market value of the Company's common stock on the date of grant, and the Board may elect to seek a third party valuation of such fair market value, which could delay the date that the Option is granted. The Option will be subject to the terms and conditions of the Company's then-current stock option plan and form of stock option agreement (the "Equity Documents") including with respect to vesting and exercise rights. The Option will vest as follows: 25% of the shares will vest on the first anniversary of the Start Date, and following that, the remaining 75% of the Shares shall vest in 36 equal monthly

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installments following the first anniversary of the Start Date. Vesting is contingent on your continued service as set forth in the Equity Documents.

You will be eligible to participate in the Company's employee benefits plans, subject to the terms and conditions of those plans. The Company's plans include Medical and Dental Insurance Programs as well as the Life, AD&D, Short and Long Term Disability Plans. Currently the Company pays for 80% of the premium cost and 100% of the deductible for the medical plan, 100% of the cost of Life and AD&D insurance as well as Short and Long Term Disability plans. The Company's employee benefit plans are subject to change.

You will accrue 15 paid vacation days per year on a prorated basis. You will be entitled to paid holidays annually in accordance with the Company's holiday schedule.

It is understood that you are an "at-will" employee. You are not being offered employment for a definite period of time, and either you or the Company may terminate the employment relationship at any time and for any reason, with or without Cause or prior notice and without additional compensation to you, other than as provided below.

Notwithstanding the foregoing, in the event that the Company terminates your employment without Cause, then, subject to you entering into and complying with a separation agreement and general release in a form provided by the Company, you will be entitled to a severance pay in an amount equal to: (i) twelve months of your then base salary as of the date of termination, such amount to be paid in equal installments over a twelve (12) month period after the date of your termination in accordance with the Company's usual payroll practices and periods, subject to applicable taxes and withholding, (ii) payment for twelve (12) months of monthly COBRA premiums at the same rate as the Company pays for active employees for you and your eligible dependents, subject to applicable COBRA terms and in compliance with applicable non-discrimination or other requirements under the Internal Revenue Code (the "Code"), the Patient Protection and Affordable Care Act, or the Health Care and Education Reconciliation Act.

For purposes of this letter agreement:

"Cause" means:

your dishonest statements or acts with respect to the Company or any affiliate of the Company, or any current or prospective customers, suppliers vendors or other third parties with which such entity does business that results in or is reasonably anticipated to result in material harm to the Company; (ii) your conviction of (A) a felony or (B) any misdemeanor involving moral turpitude, deceit, dishonesty or fraud; (iii) your failure to perform your assigned duties and responsibilities to the reasonable satisfaction of the Company which failure continues, in the reasonable judgment of the Company, for thirty (30) days after written notice given to you by the Company describing such failure in reasonable detail; (iv) your gross negligence, willful misconduct or insubordination with respect to the Company that results in or is reasonably anticipated to result in material harm to the Company; or (v) your material violation of any provision of any agreement(s) between you and the Company relating to noncompetition, nonsolicitation, nondisclosure and/or assignment of inventions.

All payments described herein are subject to legally required tax withholdings.

As a condition of your employment, you must enter into and abide by the Company's Non-Solicitation, Non-Competition, Confidentiality and Assignment Agreement (the "Employee Agreement"). Please sign and return this Employee Agreement along with a signed copy of this offer letter.

In making this offer, the Company understands, and in accepting it you represent that you are not under any obligation to any former employer or any person or entity which would prevent, limit, or impair in any way the performance by you of your duties as an employee of the Company.

The Immigration Reform and Control Act requires employers to verify the employment eligibility and identity of new employees. You will be required to complete a Form 1-9 which will be provided to you before the Start Date. Please bring the appropriate documents listed on that form with you when you report for work. We will not be able to employ you if you fail to comply with this requirement.

This letter agreement and the Employee Agreement and Equity Documents referenced above constitute the complete agreement between you and the Company, contain all of the terms of your employment with the Company and supersede any prior agreements, representations or understandings (whether written, oral or implied) between you and the Company. This letter agreement may not be amended or modified, except by an express written agreement signed by both you and a duly authorized officer of the Company, although your job duties, title, reporting relationship, compensation and benefits may change from time to time, at the Company's option.

Please indicate your acceptance of this offer by signing and returning the enclosed copy of this letter no later than 9:00am on Monday, November 24, 2014.

You may sign, scan, and email the letter to Susan O'Connor at Blueprint Medicines, Human Resources, soconnor@blueprintmedicines.com.

We look forward to your joining the Company and are pleased that you will be working with us.

Very truly yours,

Blueprint Medicines Corporation

/s/ Jeffrey W. Albers

Jeffrey W. Albers
Chief Executive Officer

Accepted and Agreed:

/s/ Anthony L. Boral
Anthony L. Boral PhD., M.D.

November 20, 2014
Date

LOAN AND SECURITY AGREEMENT

THIS LOAN AND SECURITY AGREEMENT (this "**Agreement**") dated as of May 24, 2013 (the "**Effective Date**") between **SILICON VALLEY BANK**, a California corporation with a loan production office located at 275 Grove Street, Suite 2-200, Newton, Massachusetts 02466 ("**Bank**"), and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Borrower**"), provides the terms on which Bank shall lend to Borrower and Borrower shall repay Bank. The parties agree as follows:

1. ACCOUNTING AND OTHER TERMS

Accounting terms not defined in this Agreement shall be construed following GAAP. Calculations and determinations must be made following GAAP. Capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in Section 13. All other terms contained in this Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein.

2. LOAN AND TERMS OF PAYMENT

2.1 Promise to Pay. Borrower hereby unconditionally promises to pay Bank the outstanding principal amount of all Credit Extensions and accrued and unpaid interest thereon as and when due in accordance with this Agreement.

2.1.1 Term Loan.

(a) Availability. Subject to the terms and conditions of this Agreement, during Draw Period A, Bank shall make advances (each, a "**Term Loan A Advance**" and collectively, "**Term Loan A Advances**") available to Borrower in an aggregate amount of up to Three Million Dollars ($3,000,000.00), provided however that the initial Term Loan A Advance shall be made on the Effective Date in an amount of at least One Million Dollars ($1,000,000.00). Subject to the terms and conditions of this Agreement, during Draw Period B, Bank shall make advances (each, a "**Term Loan B Advance**" and collectively, "**Term Loan B Advances**") available to Borrower in an aggregate amount of up to One Million Dollars ($1,000,000.00). Subject to the terms and conditions of this Agreement, during Draw Period C, Bank shall make advances (each, a "**Term Loan C Advance**" and collectively, "**Term Loan C Advances**") available to Borrower in an aggregate amount of up to One Million Dollars ($1,000,000.00). The Term Loan A Advances, Term Loan B Advances, and Term Loan B Advances are hereinafter referred to singly as a "Term Loan Advance" and collectively as the "Term Loan Advances." After repayment, no Term Loan Advance may be reborrowed.

(b) Interest Period. Commencing on the first Payment Date of the month following the month in which the Funding Date for the applicable Term Loan Advance occurs, and continuing on each Payment Date thereafter, Borrower shall make monthly payments of interest, in arrears, on the outstanding principal amount of each Term Loan Advance at the rate set forth in Section 2.2(a).

(c) Repayment. Commencing on April 1, 2014, and continuing on the Payment Date of each month thereafter, Borrower shall repay each Term Loan Advance in (i) thirty-six (36) equal installments of principal, plus (ii) monthly payments of accrued interest at the rate set forth in Section 2.2(a). All outstanding principal and accrued and unpaid interest with respect to the Term Loan Advances, and all other outstanding Obligations with respect to the Term Loan Advances, are due and payable in full on the Term Loan Maturity Date.

(d) Mandatory Prepayment Upon an Acceleration. If a Term Loan Advance is accelerated by Bank in accordance with Section 9.1 following the occurrence and during the continuance of an Event of Default, Borrower shall immediately pay to Bank an amount equal to the sum of: (i) all outstanding principal plus accrued and unpaid interest, (ii) the applicable Prepayment Premium, (iii) the Final Payment, plus (iv) all other sums, if any, that shall have become due and payable under the Loan Documents, including interest at the Default Rate with respect to any past due amounts.

(e) Permitted Prepayment of Loans. Borrower shall have the option to prepay all, but not less than all, of the Term Loan Advances advanced by Bank under this Agreement, provided Borrower (i) provides written notice to Bank of its election to prepay the Term Loan Advances at least five (5) days prior to such prepayment, and (ii) pays, on the date of such prepayment (A) all outstanding principal plus accrued and unpaid interest, (B) the applicable Prepayment Premium, (C) the Final Payment, plus (D) all other sums, if any, that shall have become due and payable under the Loan Documents, including interest at the Default Rate with respect to any past due amounts.

2.2 Payment of Interest on the Credit Extensions.

(a) Interest Rate. Subject to Section 2.2(b), the principal amount outstanding for each Term Loan Advance shall accrue interest at a fixed per annum rate equal to two percent (2.0%) above the Prime Rate, which interest shall be determined by Bank on the Funding Date of the applicable Term Loan Advance and shall be payable monthly in accordance with Section 2.2(c) below.

(b) Default Rate. Immediately upon the occurrence and during the continuance of an Event of Default, Obligations shall bear interest at a rate per annum which is five percent (5.0%) above the rate that is otherwise applicable thereto (the "**Default Rate**") unless Bank otherwise elects from time to time in its sole discretion to impose a smaller increase. Fees and expenses which are required to be paid by Borrower pursuant to the Loan Documents (including, without limitation, Bank Expenses) but are not paid when due shall bear interest until paid at a rate equal to the highest rate applicable to the Obligations. Payment or acceptance of the increased interest rate provided in this Section 2.2(b) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Bank.

(c) Payment; Interest Computation. Interest is payable monthly on the Payment Date and shall be computed on the basis of a 360-day year for the actual number of days elapsed. In computing interest, (i) all payments received after 1:00 p.m. Eastern time on any day shall be deemed received at the opening of business on the next Business Day, and (ii) the date of the making of any Credit Extension shall be included and the date of payment shall be excluded; provided, however, that if any Credit Extension is repaid on the same day on which it is made, such day shall be included in computing interest on such Credit Extension.

2.3 Fees. Borrower shall pay to Bank:

(a) Commitment Fee. A fully earned, non-refundable commitment fee of Twenty-Five Thousand Dollars ($25,000.000) on the Effective Date;

(b) Final Payment. The Final Payment, when due hereunder;

(c) Prepayment Premium. The Prepayment Premium, when due hereunder;

(d) Bank Expenses. All Bank Expenses (including reasonable documented attorneys' fees and expenses for documentation and negotiation of this Agreement) incurred through and after the Effective Date, when due(or, if no stated due date, upon demand by Bank).

(e) Fees Fully Earned. Unless otherwise provided in this Agreement or in a separate writing by Bank, Borrower shall not be entitled to any credit, rebate, or repayment of any fees earned by Bank pursuant to this Agreement notwithstanding any termination of this Agreement or the suspension or termination of Bank's obligation to make loans and advances hereunder. Bank may deduct amounts owing by Borrower under the clauses of this Section 2.3 pursuant to the terms of Section 2.4(c). Bank shall provide Borrower written notice of deductions made from the Designated Deposit Account pursuant to the terms of the clauses of this Section 2.3.

2.4 Payments; Application of Payments; Debit of Accounts.

(a) All payments to be made by Borrower under any Loan Document shall be made in immediately available funds in Dollars, without setoff or counterclaim, before 1:00 p.m. Eastern time on the date

when due. Payments of principal and/or interest received after 1:00 p.m. Eastern time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment shall be due the next Business Day, and additional fees or interest, as applicable, shall continue to accrue until paid.

(b) Bank has the exclusive right to determine the order and manner in which all payments with respect to the Obligations may be applied. Borrower shall have no right to specify the order or the accounts to which Bank shall allocate or apply any payments required to be made by Borrower to Bank or otherwise received by Bank under this Agreement when any such allocation or application is not specified elsewhere in this Agreement.

(c) Bank may debit the Designated Deposit Account, for principal and interest payments or any other amounts Borrower owes Bank when due. These debits shall not constitute a set-off.

3. CONDITIONS OF LOANS

3.1 Conditions Precedent to Initial Credit Extension. Bank's obligation to make the initial Credit Extension is subject to the condition precedent that Bank shall have received, in form and substance satisfactory to Bank, such documents, and completion of such other matters, as Bank may reasonably deem necessary or appropriate, including, without limitation:

(a) duly executed original signatures to the Loan Documents;

(b) duly executed original signatures to the Control Agreement(s);

(c) the Operating Documents and long-form good standing certificates of Borrower certified by the Secretary of State (or equivalent agency) of Borrower's jurisdiction of organization or formation and each jurisdiction in which Borrower is qualified to conduct business, each as of a date no earlier than thirty (30) days prior to the Effective Date;

(d) duly executed original signatures to the completed Borrowing Resolutions for Borrower;

(e) certified copies, dated as of a recent date, of financing statement searches, as Bank may request, accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been or, in connection with the initial Credit Extension, will be terminated or released;

(f) the Perfection Certificate of Borrower, together with the duly executed original signature thereto;

(g) evidence satisfactory to Bank that the insurance policies and endorsements required by Section 6.5 hereof are in full force and effect, together with appropriate evidence showing lender loss payable and/or additional insured clauses or endorsements in favor of Bank; and

(h) payment of the fees and Bank Expenses then due as specified in Section 2.3 hereof.

3.2 Conditions Precedent to all Credit Extensions. Bank's obligations to make each Credit Extension, including the initial Credit Extension, is subject to the following conditions precedent:

(a) except as otherwise provided in Section 3.4, timely receipt of an executed Payment/Advance Form;

(b) the representations and warranties in this Agreement shall be true, accurate, and complete in all material respects on the date of the Payment/Advance Form and on the Funding Date of each Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations

and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date, and no Event of Default shall have occurred and be continuing or result from the Credit Extension. Each Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in this Agreement remain true, accurate, and complete in all material respects; provided, however, that such materiality qualifier

shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; and

(c) Bank determines to its satisfaction that there has not been any material impairment in the general affairs, management, results of operation, financial condition or the prospect of repayment of the Obligations when due, or any material adverse deviation by Borrower from the most recent business plan of Borrower presented to and accepted by Bank.

3.3 Covenant to Deliver. Borrower agrees to deliver to Bank each item required to be delivered to Bank under this Agreement as a condition precedent to any Credit Extension. Borrower expressly agrees that a Credit Extension made prior to the receipt by Bank of any such item shall not constitute a waiver by Bank of Borrower's obligation to deliver such item, and the making of any Credit Extension in the absence of a required item shall be in Bank's sole discretion.

3.4 Procedures for Borrowing. Subject to the prior satisfaction of all other applicable conditions to the making of a Credit Extension set forth in this Agreement, to obtain a Credit Extension, Borrower shall notify Bank (which notice shall be irrevocable) by electronic mail, facsimile, or telephone by 1:00 p.m. Eastern time one (1) Business Day before the proposed Funding Date of the Credit Extension. Together with any such electronic or facsimile notification, Borrower shall deliver to Bank by electronic mail or facsimile a completed Payment/Advance Form executed by a Responsible Officer or his or her designee. Bank may rely on any telephone notice given by a person whom Bank believes is a Responsible Officer or designee. Bank shall credit the Credit Extension to the Designated Deposit Account. Bank may make Credit Extension under this Agreement based on instructions from a Responsible Officer or his or her designee or without instructions if the Credit Extensions are necessary to meet Obligations which have become due.

4. CREATION OF SECURITY INTEREST

4.1 Grant of Security Interest. Borrower hereby grants Bank, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Bank, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof.

Borrower acknowledges that it previously has entered, and/or may in the future enter, into Bank Services Agreements with Bank. Regardless of the terms of any Bank Services Agreement, Borrower agrees that any amounts Borrower owes Bank thereunder shall be deemed to be Obligations hereunder and that it is the intent of Borrower and Bank to have all such Obligations secured by the first priority perfected security interest in the Collateral granted herein (subject only to Permitted Liens that are permitted pursuant to the terms of this Agreement to have superior priority to Bank's Lien in this Agreement).

If this Agreement is terminated, Bank's Lien in the Collateral shall continue until the Obligations (other than inchoate indemnity obligations) are repaid in full in cash. Upon payment in full in cash of the Obligations (other than inchoate indemnity obligations) and at such time as Bank's obligation to make Credit Extensions has terminated, Bank shall, at the sole cost and expense of Borrower, release its Liens in the Collateral and all rights therein shall revert to Borrower. In the event (x) all Obligations (other than inchoate indemnity obligations), except for Bank Services, are satisfied in full, and (y) this Agreement is terminated, Bank shall terminate the security interest granted herein upon Borrower providing cash collateral acceptable to Bank in its good faith business judgment for Bank Services, if any. In the event such Bank Services consist of outstanding Letters of Credit, Borrower shall provide to Bank cash collateral in an amount equal to (x) if such Letters of Credit are denominated in Dollars, then at least one hundred five percent (105.0%); and (y) if such Letters of Credit are denominated in a Foreign Currency, then at least one hundred ten percent (110.0%), of the Dollar Equivalent of the face amount of all such Letters of Credit plus all interest, fees, and costs due or to become due in connection therewith (as estimated by Bank in its business judgment), to secure all of the Obligations relating to such Letters of Credit.

4.2 Priority of Security Interest. Borrower represents, warrants, and covenants that the security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral (subject only to Permitted Liens that are permitted pursuant to the terms of this Agreement to have superior priority to Bank's Lien under this Agreement). If Borrower shall acquire a commercial tort claim, Borrower shall promptly notify Bank in a writing signed by Borrower of the general details thereof and grant to Bank in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance reasonably satisfactory to Bank.

4.3 Authorization to File Financing Statements. Borrower hereby authorizes Bank to file financing statements, without notice to Borrower, with all appropriate jurisdictions to perfect or protect Bank's interest or rights hereunder, including a notice that any disposition of the Collateral, by either Borrower or any other Person, shall be deemed to violate the rights of Bank under the Code. Such financing statements may indicate the Collateral as "all assets of the Debtor" or words of similar effect, or as being of an equal or lesser scope, or with greater detail, all in Bank's discretion.

5. REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants as follows:

5.1 Due Organization, Authorization; Power and Authority. Borrower is duly existing and in good standing as a Registered Organization in its jurisdiction of formation and is qualified and licensed to do business and is in good standing in any jurisdiction in which the conduct of its business or its ownership of property requires that it be qualified except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business. In connection with this Agreement, Borrower has delivered to Bank a completed certificate signed by Borrower, entitled "Perfection Certificate". Borrower represents and warrants to Bank that (a) Borrower's exact legal name is that indicated on the Perfection Certificate and on the signature page hereof; (b) Borrower is an organization of the type and is organized in the jurisdiction set forth in the Perfection Certificate; (c) the Perfection Certificate accurately sets forth Borrower's organizational identification number or accurately states that Borrower has none; (d) the Perfection Certificate accurately sets forth Borrower's place of business, or, if more than one, its chief executive office as well as Borrower's mailing address (if different than its chief executive office); (e) Borrower (and each of its predecessors) has not, in the past five (5) years, changed its jurisdiction of formation, organizational structure or type, or any organizational number assigned by its jurisdiction; and (f) all other information set forth on the Perfection Certificate pertaining to Borrower and each of its Subsidiaries is accurate and complete (it being understood and agreed that Borrower may from time to time update certain information in the Perfection Certificate after the Effective Date to the extent permitted by one or more specific provisions in this Agreement). If Borrower is not now a Registered Organization but later becomes one, Borrower shall promptly notify Bank of such occurrence and provide Bank with Borrower's organizational identification number.

The execution, delivery and performance by Borrower of the Loan Documents to which it is a party have been duly authorized, and do not (i) conflict with any of Borrower's organizational documents, (ii) contravene, conflict with, constitute a default under or violate any material Requirement of Law, (iii) contravene, conflict or violate any applicable order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which

Borrower or any of its Subsidiaries or any of their property or assets may be bound or affected, (iv) require any action by, filing, registration, or qualification with, or Governmental Approval from, any Governmental Authority (except such Governmental Approvals which have already been obtained and are in full force and effect), or (v) conflict with, contravene, constitute a default or breach under, or result in or permit the termination or acceleration of, any material agreement by which Borrower is bound. Borrower is not in default under any agreement to which it is a party or by which it is bound in which the default could reasonably be expected to have a material adverse effect on Borrower's business.

5.2 Collateral. Borrower has good title to, rights in, and the power to transfer each item of the Collateral upon which it purports to grant a Lien hereunder, free and clear of any and all Liens except Permitted Liens. Borrower has no Collateral Accounts at or with any bank or financial institution other than Bank or Bank's Affiliates except for the Collateral Accounts described in the Perfection Certificate delivered to Bank in connection herewith and which Borrower has taken such actions as are necessary to give Bank a perfected security interest

therein, pursuant to the term of Section 6.6(b). The Accounts are bona fide, existing obligations of the Account Debtors.

The Collateral is not in the possession of any third party bailee (such as a warehouse) except as otherwise provided in the Perfection Certificate. None of the components of the Collateral (other than mobile equipment such as laptop computers and personal digital assistants with aggregate value not at any time exceeding One Hundred Thousand Dollars ($100,000.00) in the aggregate in the possession of Borrower's employees or agents) shall be maintained at locations other than as provided in the Perfection Certificate or as permitted pursuant to Section 7.2.

All Inventory is in all material respects of good and marketable quality, free from material defects.

Borrower is the sole owner of the Intellectual Property which it owns or purports to own except for (a) non-exclusive licenses granted to its customers and strategic partners in the ordinary course of business, (b) over-the-counter software that is commercially available to the public, and (c) material Intellectual Property licensed to Borrower and noted on the Perfection Certificate. Each Patent which it owns or purports to own and which is material to Borrower's business is valid and enforceable, and no part of the Intellectual Property which Borrower owns or purports to own and which is material to Borrower's business has been judged invalid or unenforceable, in whole or in part. To the best of Borrower's knowledge, no claim has been made that any part of the Intellectual Property violates the rights of any third party except to the extent such claim would not reasonably be expected to have a material adverse effect on Borrower's business.

Except as noted on the Perfection Certificate, Borrower is not a party to, nor is it bound by, any Restricted License.

5.3 Litigation. There are no actions or proceedings pending or, to the knowledge of any Responsible Officer, threatened in writing by or against Borrower or any of its Subsidiaries involving more than, individually or in the aggregate, One Hundred Thousand Dollars ($100,000.00).

5.4 Financial Statements; Financial Condition. All consolidated financial statements for Borrower and any of its Subsidiaries delivered to Bank fairly present in all material respects Borrower's consolidated financial condition and Borrower's consolidated results of operations. There has not been any material deterioration in Borrower's consolidated financial condition since the date of the most recent financial statements submitted to Bank.

5.5 Solvency. The fair salable value of Borrower's consolidated assets (including goodwill minus disposition costs) exceeds the fair value of Borrower's liabilities; Borrower is not left with unreasonably small capital after the transactions in this Agreement; and Borrower is able to pay its debts (including trade debts) as they mature.

5.6 Regulatory Compliance. Borrower is not an "investment company" or a company "controlled" by an "investment company" under the Investment Company Act of 1940, as amended. Borrower is not engaged as one of its important activities in extending credit for margin stock (under Regulations X, T and U of the Federal Reserve Board of Governors). Borrower (a) has complied in all material respects with all Requirements of Law, and (b) has not violated any Requirements of Law the violation of which could reasonably be expected to have a material adverse effect on its business. None of Borrower's or any of its Subsidiaries' properties or assets has been used by Borrower or any Subsidiary or, to the best of Borrower's knowledge, by previous Persons, in disposing, producing, storing, treating, or transporting any hazardous substance other than legally. Borrower and each of its Subsidiaries have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all Government Authorities that are necessary to continue their respective businesses as currently conducted.

5.7 Subsidiaries; Investments. Borrower does not own any stock, partnership, or other ownership interest or other equity securities except for Permitted Investments.

5.8 Tax Returns and Payments; Pension Contributions. Borrower has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except (a) to the extent such taxes are being contested in good faith by appropriate proceedings promptly instituted and diligently conducted, so long as such reserve or other appropriate provision, if any, as shall be required in conformity with GAAP shall have been made therefor, or (b) if such taxes, assessments, deposits and contributions do not, individually or in the aggregate, exceed Five Thousand Dollars ($5,000.00).

To the extent Borrower defers payment of any contested taxes, Borrower shall (i) notify Bank in writing of the commencement of, and any material development in, the proceedings, and (ii) post bonds or take any other steps required to prevent the governmental authority levying such contested taxes from obtaining a Lien upon any of the Collateral that is other than a "Permitted Lien." Borrower is unaware of any claims or adjustments proposed for any of Borrower's prior tax years which could result in additional taxes becoming due and payable by Borrower. Borrower has paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, and Borrower has not withdrawn from participation in, and has not permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

5.9 Use of Proceeds. Borrower shall use the proceeds of the Credit Extensions as working capital and to fund its general business requirements and not for personal, family, household or agricultural purposes.

5.10 Full Disclosure. No written representation, warranty or other statement of Borrower in any certificate or written statement given to Bank in connection with the Loan Documents or the transactions contemplated thereby, as of the date such representation, warranty, or other statement was made, taken together with all such written certificates and written statements given to Bank, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or statements, in light of the circumstances in which they were made, not misleading (it being recognized by Bank that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).

5.11 Definition of "Knowledge." For purposes of the Loan Documents, whenever a representation or warranty is made to Borrower's knowledge or awareness, to the "best of" Borrower's knowledge, or with a similar qualification, knowledge or awareness means the actual knowledge, after reasonable investigation, of any Responsible Officer.

6. AFFIRMATIVE COVENANTS

Borrower shall do all of the following:

6.1 Government Compliance.

(a) Maintain its and (except as permitted by Section 7.3) all its Subsidiaries' legal existence and good standing in their respective jurisdictions of formation and maintain qualification in each jurisdiction in which the failure to so qualify would reasonably be expected to have a material adverse effect on Borrower's business or operations. Borrower shall comply, and have each Subsidiary comply, in all material respects, with all laws, ordinances and regulations to which it is subject.

(b) Obtain all of the Governmental Approvals necessary for the performance by Borrower of its obligations under the Loan Documents to which it is a party and the grant of a security interest to Bank in all of its property. Borrower shall promptly provide copies of any such obtained Governmental Approvals to Bank.

6.2 Financial Statements, Reports, Certificates. Provide Bank with the following:

(a) Monthly Financial Statements. As soon as available, but no later than thirty (30) days after the last day of each month, a company prepared consolidated balance sheet and income statement covering Borrower's consolidated operations for such month certified by a Responsible Officer and in a form acceptable to Bank (the "**Monthly Financial Statements**");

(b) Monthly Compliance Certificate. Within thirty (30) days after the last day of each month and together with the Monthly Financial Statements, a duly completed Compliance Certificate signed by a Responsible Officer, certifying that as of the end of such month, Borrower was in full compliance with all of the terms and conditions of this Agreement, and setting forth such other information as Bank may reasonably request;

(c) Board-Approved Projections. As soon as available, but no later than sixty (60) days after the last day of Borrower's fiscal year, and contemporaneously with any updates or changes thereto, Board-approved projections as to the then current fiscal year in a form acceptable to Bank;

(d) Annual Audited Financial Statements. As soon as available, but no later than one hundred eighty (180) days after the last day of Borrower's fiscal year, audited consolidated financial statements prepared under GAAP, consistently applied, together with an unqualified opinion on the financial statements from an independent certified public accounting firm reasonably acceptable to Bank;

(e) Other Statements. Within five (5) days of delivery, copies of all statements, reports and notices made available to Borrower's security holders or to any holders of Subordinated Debt;

(f) SEC Filings. In the event that Borrower becomes subject to the reporting requirements under the Exchange Act within five (5) days of filing, copies of all periodic and other reports, proxy statements and other materials filed by Borrower with the SEC, any Governmental Authority succeeding to any or all of the functions of the SEC or with any national securities exchange, or distributed to its shareholders, as the case may be. Documents required to be delivered pursuant to the terms hereof (to the extent any such documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date on which Borrower posts such documents, or provides a link thereto, on Borrower's website on the Internet at Borrower's website address; provided, however, Borrower shall promptly notify Bank in writing (which may be by electronic mail) of the posting of any such documents;

(g) Legal Action Notice. A prompt report of any legal actions pending or threatened in writing against Borrower or any of its Subsidiaries that could result in damages or costs to Borrower or any of its Subsidiaries of, individually or in the aggregate, One Hundred Thousand Dollars ($100,000.00) or more; and

(h) Other Financial Information. Other financial information reasonably requested by Bank.

6.3 Inventory; Returns. Keep all Inventory in good and marketable condition, free from material defects. Returns and allowances between Borrower and its Account Debtors shall follow Borrower's customary practices as they exist at the Effective Date. Borrower must promptly notify Bank of all returns, recoveries, disputes and claims that involve more than One Hundred Thousand Dollars ($100,000.00).

6.4 Taxes; Pensions. Timely file, and require each of its Subsidiaries to timely file, all required tax returns and reports and timely pay, and require each of its Subsidiaries to timely pay, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower and each of its Subsidiaries, except for deferred payment of any taxes contested pursuant to the terms of Section 5.8 hereof, and shall deliver to Bank, on demand, appropriate certificates attesting to such payments, and pay all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms.

6.5 Insurance.

(a) Keep its business and the Collateral insured for risks and in amounts standard for companies in Borrower's industry and location and as Bank may reasonably request. Insurance policies shall be in a form, with financially sound and reputable insurance companies that are not Affiliates of Borrower,

and in amounts

that are satisfactory to Bank. All property policies shall have a lender's loss payable endorsement showing Bank as lender loss payee. All liability policies shall show, or have endorsements showing, Bank as an additional insured. Bank shall be named as lender loss payee and/or additional insured with respect to any such insurance providing coverage in respect of any Collateral.

(b) Ensure that proceeds payable under any property policy are, at Bank's option, payable to Bank on account of the Obligations. Notwithstanding the foregoing, (a) so long as no Event of Default has occurred and is continuing, Borrower shall have the option of applying the proceeds of any casualty policy up to One Hundred Thousand Dollars ($100,000.00) with respect to any loss, but not exceeding Two Hundred Fifty Thousand Dollars ($250,000.00) in the aggregate for all losses under all casualty policies in any one year, toward the replacement or repair of destroyed or damaged property; provided that any such replaced or repaired property (i) shall be of equal or like value as the replaced or repaired Collateral and (ii) shall be deemed Collateral in which Bank has been granted a first priority security interest, and (b) after the occurrence and during the continuance of an Event of Default, all proceeds payable under such casualty policy shall, at the option of Bank, be payable to Bank on account of the Obligations.

(c) At Bank's request, Borrower shall deliver certified copies of insurance policies and evidence of all premium payments. Each provider of any such insurance required under this Section 6.5 shall agree, by endorsement upon the policy or policies issued by it or by independent instruments furnished to Bank, that it will give Bank thirty (30) days prior written notice before any such policy or policies shall be materially altered or canceled. If Borrower fails to obtain insurance as required under this Section 6.5 or to pay any amount or furnish any required proof of payment to third persons and Bank, Bank may make all or part of such payment or obtain such insurance policies required in this Section 6.5, and take any action under the policies Bank deems prudent.

6.6 Operating Accounts.

(a) Maintain all of its and all of its Subsidiaries' operating, depository and securities accounts with Bank and Bank's Affiliates.

(b) Provide Bank five (5) days prior written notice before establishing any Collateral Account at or with any bank or financial institution other than Bank or Bank's Affiliates. For each Collateral Account that Borrower at any time maintains, Borrower shall cause the applicable bank or financial institution (other than Bank) at or with which any Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Bank's Lien in such Collateral Account in accordance with the terms hereunder which Control Agreement may not be terminated without the prior written consent of Bank. The provisions of the previous sentence shall not apply to deposit accounts exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's employees and identified to Bank by Borrower as such.

6.7 Protection of Intellectual Property Rights.

(a) (i) Protect, defend and maintain the validity and enforceability of its Intellectual Property; (ii) promptly advise Bank in writing of material infringements or any other event that could reasonably be expected to materially and adversely affect the value of its Intellectual Property; and (iii) not allow any Intellectual Property material to Borrower's business to be abandoned, forfeited or dedicated to the public without Bank's written consent.

(b) Provide written notice to Bank within ten (10) days of entering or becoming bound by any Restricted License (other than over-the-counter software that is commercially available to the public). Borrower shall take such steps as Bank requests to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for (i) any Restricted License to be deemed "Collateral" and for Bank to have a security interest in it that might otherwise be restricted or prohibited by law or by the terms of any such Restricted License, whether now existing or entered into in the future, and (ii) Bank to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Bank's rights and remedies under this Agreement and the other Loan Documents.

6.8 Litigation Cooperation. From the date hereof and continuing through the termination of this Agreement, make available to Bank, without expense to Bank, Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Bank may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Bank with respect to any Collateral or relating to Borrower.

6.9 Access to Collateral; Books and Records. Allow Bank, or its agents, at reasonable times, on one (1) Business Day's notice (provided no notice is required if an Event of Default has occurred and is continuing), to inspect the Collateral and audit and copy Borrower's Books. Such inspections or audits shall be conducted no more often than once every twelve (12) months unless an Event of Default has occurred and is continuing in which case such inspections and audits shall occur as often as Bank shall determine is necessary. The foregoing inspections and audits shall be at Borrower's expense.

6.10 Further Assurances. Execute any further instruments and take further action as Bank reasonably requests to perfect or continue Bank's Lien in the Collateral or to effect the purposes of this Agreement. Deliver to Bank, within five (5) days after the same are sent or received, copies of all correspondence, reports, documents and other filings with any Governmental Authority regarding compliance with or maintenance of Governmental Approvals or Requirements of Law that could reasonably be expected to have a material effect on any of the Governmental Approvals or otherwise on the operations of Borrower or any of its Subsidiaries.

7. <u>NEGATIVE COVENANTS</u>

Borrower shall not do any of the following without Bank's prior written consent:

7.1 Dispositions. Convey, sell, lease, transfer, assign, or otherwise dispose of (collectively, "Transfer"), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, except for Transfers (a) of Inventory in the ordinary course of business; (b) of worn-out, obsolete, or surplus Equipment that is, in the reasonable judgment of Borrower, no longer economically practicable to maintain or useful in the ordinary course of business of Borrower; (c) consisting of Permitted Liens and Permitted Investments; (d) consisting of the sale or issuance of any stock of Borrower permitted under Section 7.2 of this Agreement; (e) consisting of Borrower's use or transfer of money or Cash Equivalents in the ordinary course of its business for the payment of ordinary course business expenses in a manner that is not prohibited by the terms of this Agreement or the other Loan Documents; and (f) of non-exclusive licenses, partnerships, strategic collaborations and joint ventures for the use of the property of Borrower or its Subsidiaries in the ordinary course of business.

7.2 Changes in Business, Management, Ownership, or Business Locations. (a) Engage in or permit any of its Subsidiaries to engage in any business other than the businesses currently engaged in by Borrower and such Subsidiary, as applicable, or reasonably related thereto; (b) liquidate or dissolve; or (c) (i) fail to provide notice to Bank of any Key Person departing from or ceasing to be employed by Borrower within five (5) days after his or her departure from Borrower; or (ii) enter into any transaction or series of related transactions in which the stockholders of Borrower who were not stockholders immediately prior to the first such transaction own more than forty percent (40%) of the voting stock of Borrower immediately after giving effect to such transaction or related series of such transactions (other than by the sale of Borrower's equity securities in a public offering or to venture capital or private equity investors so long as Borrower identifies to Bank the venture capital or private equity investors at least seven (7) Business Days prior to the closing of the transaction and provides to Bank a description of the material terms of the transaction).

Borrower shall not, without at least thirty (30) days prior written notice to Bank: (1) add any new offices or business locations, including warehouses (unless each such new office or business location contains less than Twenty Five Thousand Dollars ($25,000.00) in Borrower's assets or property) or deliver any portion of the Collateral valued, individually or in the aggregate, in excess of Fifty Thousand Dollars ($50,000.00) to a bailee at a location other than to a bailee and at a location already disclosed in the Perfection Certificate, (2) change its jurisdiction of organization, (3) change its organizational structure or type, (4) change its legal name, or (5) change any organizational number (if any) assigned by its jurisdiction of organization. If Borrower intends to deliver any portion of the Collateral valued, individually or in the aggregate, in excess of Fifty Thousand Dollars ($50,000.00) to a bailee, and Bank and such bailee are not already parties to a bailee agreement governing both the Collateral and

the location to which Borrower intends to deliver the Collateral, then Borrower will first receive the written consent of Bank, and such bailee shall execute and deliver a bailee agreement in form and substance satisfactory to Bank.

7.3 Mergers or Acquisitions. Merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with any other Person, or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock or property of another Person (including, without limitation, by the formation of any Subsidiary). A Subsidiary may merge or consolidate into another Subsidiary or into Borrower.

7.4 Indebtedness. Create, incur, assume, or be liable for any Indebtedness, or permit any Subsidiary to do so, other than Permitted Indebtedness.

7.5 Encumbrance. Create, incur, allow, or suffer any Lien on any of its property, or assign or convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries to do so, except for Permitted Liens, permit any Collateral not to be subject to the first priority security interest granted herein, or enter into any agreement, document, instrument or other arrangement (except with or in favor of Bank) with any Person which directly or indirectly prohibits or has the effect of prohibiting Borrower or any Subsidiary from assigning, mortgaging, pledging, granting a security interest in or upon, or encumbering any of Borrower's or any Subsidiary's Intellectual Property, except as is otherwise permitted in Section 7.1 hereof and the definition of "Permitted Liens" herein.

7.6 Maintenance of Collateral Accounts. Maintain any Collateral Account except pursuant to the terms of Section 6.6(b) hereof.

7.7 Distributions; Investments. (a) Pay any dividends or make any distribution or payment or redeem, retire or purchase any capital stock provided that (i) Borrower may convert any of its convertible securities into other securities pursuant to the terms of such convertible securities or otherwise in exchange thereof, (ii) Borrower may pay dividends solely in common stock; and (iii) Borrower may repurchase the stock of former employees or consultants pursuant to stock repurchase agreements so long as an Event of Default does not exist at the time of such repurchase and would not exist after giving effect to such repurchase, provided that the aggregate amount of all such repurchases does not exceed One Hundred Thousand Dollars ($100,000.00) per fiscal year; or (b) directly or indirectly make any Investment (including, without limitation, by the formation of any Subsidiary) other than Permitted Investments, or permit any of its Subsidiaries to do so.

7.8 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower, except for transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person.

7.9 Subordinated Debt. (a) Make or permit any payment on any Subordinated Debt, except under the terms of the subordination, intercreditor, or other similar agreement to which such Subordinated Debt is subject, or (b) amend any provision in any document relating to the Subordinated Debt which would increase the amount thereof, provide for earlier or greater principal, interest, or other payments thereon, or adversely affect the subordination thereof to Obligations owed to Bank.

7.10 Compliance. Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of any Credit Extension for that purpose; fail to (a) meet the minimum funding requirements of ERISA, (b) prevent a Reportable Event or Prohibited Transaction, as defined in ERISA, from occurring, or (c) comply with the Federal Fair Labor Standards Act, the failure of any of the conditions described in clauses (a) through (c) which could reasonably be expected to have a material adverse effect on Borrower's business; or violate any other law or regulation, if the violation could reasonably be expected to have a material adverse effect on Borrower's business, or permit any of its Subsidiaries to do so; withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could

reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

8. EVENTS OF DEFAULT

Any one of the following shall constitute an event of default (an "**Event of Default**") under this Agreement:

8.1 Payment Default. Borrower fails to (a) make any payment of principal or interest on any Credit Extension when due, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day cure period shall not apply to payments due

on the Term Loan Maturity Date). During the cure period, the failure to make or pay any payment specified under clause (b) hereunder is not an Event of Default (but no Credit Extension will be made during the cure period);

8.2 Covenant Default.

(a) Borrower fails or neglects to perform any obligation in Sections 6.2, 6.4, 6.5, 6.6, or 6.7(b), or violates any covenant in Section 7; or

(b) Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this Agreement or any Loan Documents, and as to any default (other than those specified in this Section 8) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within ten (10) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to cure the default shall not be deemed an Event of Default (but no Credit Extensions shall be made during such cure period). Cure periods provided under this section shall not apply, among other things, to financial covenants or any other covenants set forth in clause (a) above;

8.3 Material Adverse Change. A Material Adverse Change occurs;

8.4 Attachment; Levy; Restraint on Business.

(a) (i) The service of process seeking to attach, by trustee or similar process, any funds of Borrower or of any entity under the control of Borrower (including a Subsidiary), or (ii) a notice of lien or levy is filed against any of Borrower's assets by any Governmental Authority, and the same under subclauses (i) and (ii) hereof are not, within ten (10) days after the occurrence thereof, discharged or stayed (whether through the posting of a bond or otherwise); provided, however, no Credit Extensions shall be made during any ten (10) day cure period; or

(b) (i) any material portion of Borrower's assets is attached, seized, levied on, or comes into possession of a trustee or receiver, or (ii) any court order enjoins, restrains, or prevents Borrower from conducting all or any material part of its business;

8.5 Insolvency. (a) Borrower is unable to pay its debts (including trade debts) as they become due or otherwise becomes insolvent; (b) Borrower begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower and is not dismissed or stayed within forty-five (45) days (but no Credit Extensions shall be made while any of the conditions described in clause (a) exist and/or until any Insolvency Proceeding is dismissed);

8.6 Other Agreements. There is, under any agreement to which Borrower is a party with a third party or parties, (a) any default resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount individually or in the aggregate in excess of One Hundred Thousand Dollars ($100,000.00); or (b) any breach or default by Borrower, the result of which could have a material adverse effect on Borrower's business;

8.7 Judgments; Penalties. One or more fines, penalties or final judgments, orders or decrees for the payment of money in an amount, individually or in the aggregate, of at least One Hundred Thousand Dollars ($100,000.00) (not covered by independent third-party insurance as to which liability has been accepted by such insurance carrier) shall be rendered against Borrower by any Governmental Authority, and the same are not, within ten (10) days after the entry, assessment or issuance thereof, discharged, satisfied, or paid, or after execution thereof, stayed or bonded pending appeal, or such judgments are not discharged prior to the expiration of any such stay (provided that no Credit Extensions will be made prior to the satisfaction, payment, discharge, stay, or bonding of such fine, penalty, judgment, order or decree);

8.8 Misrepresentations. Borrower or any Person acting for Borrower makes any representation, warranty, or other statement now or later in this Agreement, any Loan Document or in any writing delivered to Bank or to induce Bank to enter this Agreement or any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made;

8.9 Subordinated Debt. Any document, instrument, or agreement evidencing any Subordinated Debt shall for any reason be revoked or invalidated or otherwise cease to be in full force and effect, any Person shall be in breach thereof or contest in any manner the validity or enforceability thereof or deny that it has any further liability or obligation thereunder, or the Obligations shall for any reason be subordinated or shall not have the priority contemplated by this Agreement; or

8.10 Governmental Approvals. Any Governmental Approval shall have been (a) revoked, rescinded, suspended, modified in an adverse manner or not renewed in the ordinary course for a full term or (b) subject to any decision by a Governmental Authority that designates a hearing with respect to any applications for renewal of any of such Governmental Approval or that could result in the Governmental Authority taking any of the actions described in clause (a) above, and such decision or such revocation, rescission, suspension, modification or non-renewal (i) cause, or could reasonably be expected to cause, a Material Adverse Change, or (ii) adversely affects the legal qualifications of Borrower or any of its Subsidiaries to hold such Governmental Approval in any applicable jurisdiction and such revocation, rescission, suspension, modification or non-renewal could reasonably be expected to affect the status of or legal qualifications of Borrower or any of its Subsidiaries to hold any Governmental Approval in any other jurisdiction.

9. BANK'S RIGHTS AND REMEDIES

9.1 Rights and Remedies. Upon the occurrence and during the continuance of an Event of Default, Bank may, without notice or demand, do any or all of the following to the extent not prohibited by applicable law:

(a) declare all Obligations immediately due and payable (but if an Event of Default described in Section 8.5 occurs all Obligations are immediately due and payable without any action by Bank);

(b) stop advancing money or extending credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Bank;

(c) demand that Borrower (i) deposit cash with Bank in an amount equal to at least (A) one hundred five percent (105.0%) of the Dollar Equivalent of the aggregate face amount of all Letters of Credit denominated in Dollars remaining undrawn, and (B) one hundred ten percent (110.0%) of the

Dollar Equivalent of the aggregate face amount of all Letters of Credit denominated in a Foreign Currency remaining undrawn, (plus, in each case, all interest, fees, and costs due or to become due in connection therewith (as estimated by Bank in its good faith business judgment)), to secure all of the Obligations relating to such Letters of Credit, as collateral security for the repayment of any future drawings under such Letters of Credit, and Borrower shall forthwith deposit and pay such amounts, and (ii) pay in advance all letter of credit fees scheduled to be paid or payable over the remaining term of any Letters of Credit;

(d) terminate any FX Contracts;

(e) verify the amount of, demand payment of and performance under, and collect any Accounts and General Intangibles, settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Bank considers advisable, and notify any Person owing Borrower money of Bank's security interest in such funds;

(a) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Bank requests and make it available as Bank designates at any location that is reasonably convenient to Bank and Borrower. Bank may peaceably enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay, purchase, contest, or compromise any Lien which appears to be prior or superior to its security interest and pay all expenses incurred. Borrower grants Bank a license to enter and occupy any of its premises, without charge by Borrower, to exercise any of Bank's rights or remedies;

(b) apply to the Obligations any (i) balances and deposits of Borrower it holds, or (ii) any amount held by Bank owing to or for the credit or the account of Borrower;

(c) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral. Bank is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's labels, Patents, Copyrights, mask works, rights of use of any name, trade secrets, trade names, Trademarks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Bank's exercise of its rights under this Section, Borrower's rights under all licenses and all franchise agreements inure to Bank's benefit;

(d) place a "hold" on any account maintained with Bank and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;

(e) demand and receive possession of Borrower's Books; and

(f) exercise all rights and remedies available to Bank under the Loan Documents or at law or equity, including all remedies provided under the Code (including disposal of the Collateral pursuant to the terms thereof).

9.2 Power of Attorney. Borrower hereby irrevocably appoints Bank as its lawful attorney-in-fact, exercisable upon the occurrence and during the continuance of an Event of Default, to: (a) endorse Borrower's name on any checks or other forms of payment or security; (b) sign Borrower's name on any invoice or bill of lading for any Account or drafts against Account Debtors; (c) settle and adjust disputes and claims about the Accounts directly with Account Debtors, for amounts and on terms Bank determines reasonable; (d) make, settle, and adjust all claims under Borrower's insurance policies; (e) pay, contest or settle any Lien, charge, encumbrance, security interest, and adverse claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (f) transfer the Collateral into the name of Bank or a third party as the Code permits. Borrower hereby appoints Bank as its lawful attorney-in-fact to sign Borrower's name on any documents necessary to perfect or continue the perfection of Bank's security interest in the Collateral regardless of whether an Event of Default has occurred until all Obligations have been satisfied in full and Bank is under no further obligation to make Credit Extensions hereunder. Bank's foregoing appointment as Borrower's attorney in fact, and all of Bank's rights and powers, coupled with an interest, are irrevocable until all Obligations have been fully repaid and performed and Bank's obligation to provide Credit Extensions terminates.

9.3 Protective Payments. If Borrower fails to obtain the insurance called for by Section 6.5 or fails to pay any premium thereon or fails to pay any other amount which Borrower is obligated to pay under this Agreement or any other Loan Document or which may be required to preserve the Collateral, Bank may obtain such insurance or make such payment, and all amounts so paid by Bank are Bank Expenses and immediately due and payable, bearing interest at the then highest rate applicable to the Obligations, and secured by the Collateral. Bank will make reasonable efforts to provide Borrower with notice of Bank obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Bank are deemed an agreement to make similar payments in the future or Bank's waiver of any Event of Default.

9.4 Application of Payments and Proceeds Upon Default. If an Event of Default has occurred and is continuing, Bank shall have the right to apply in any order any funds in its possession, whether from Borrower account balances, payments, proceeds realized as the result of any collection of Accounts or other disposition of the Collateral, or otherwise, to the Obligations. Bank shall pay any surplus to Borrower by credit to the Designated Deposit Account or to other Persons legally entitled thereto; Borrower shall remain liable to Bank for any deficiency. If Bank, directly or indirectly, enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Bank shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Bank of cash therefor.

9.5 Bank's Liability for Collateral. So long as Bank complies with applicable law and reasonable banking practices regarding the safekeeping of the Collateral in the possession or under the control of Bank, Bank shall not be liable or responsible for: (a) the safekeeping of the Collateral; (b) any loss or damage to the Collateral; (c) any diminution in the value of the Collateral; or (d) any act or default of any carrier, warehouseman, bailee, or other Person. Borrower bears all risk of loss, damage or destruction of the Collateral.

9.6 No Waiver; Remedies Cumulative. Bank's failure, at any time or times, to require strict performance by Borrower of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Bank thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by the party granting the waiver and then is only effective for the specific instance and purpose for which it is given. Bank's rights and remedies under this Agreement and the other Loan Documents are cumulative. Bank has all rights and remedies provided under the Code, by law, or in equity. Bank's exercise of one right or remedy is not an election and shall not preclude Bank from exercising any other remedy under

this Agreement or other remedy available at law or in equity, and Bank's waiver of any Event of Default is not a continuing waiver. Bank's delay in exercising any remedy is not a waiver, election, or acquiescence.

9.7 Demand Waiver. Borrower waives demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Bank on which Borrower is liable.

10. NOTICES

All notices, consents, requests, approvals, demands, or other communication by any party to this Agreement or any other Loan Document must be in writing and shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, first class, registered or certified mail return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by electronic mail or facsimile transmission; (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address, facsimile number, or email address indicated below. Bank or Borrower may change its mailing or electronic mail address or facsimile number by giving the other party written notice thereof in accordance with the terms of this Section 10.

If to Borrower:	Blueprint Medicines Corporation 215 First Street Cambridge, Massachusetts 02142 Attn: Christine Bellon Fax: Email: cbellon@blueprintmedicines.com
with a copy to:	Goodwin Procter LLP 53 State Street Boston, Massachusetts 02109 Attn: Mark D. Smith Fax: (617) 523-1231 Email: marksmith@goodwinprocter.com
If to Bank:	Silicon Valley Bank 275 Grove Street, Suite 2-200 Newton, Massachusetts 02466 Attn: Ms. Christina Zorzi Fax: Email: czorzi@svb.com
with a copy to:	Riemer & Braunstein LLP Three Center Plaza Boston, Massachusetts 02108 Attn: David A. Ephraim, Esquire Fax: (617) 692-3455 Email: DEphraim@riemerlaw.com

11. CHOICE OF LAW, VENUE, AND JURY TRIAL WAIVER

Massachusetts law governs the Loan Documents without regard to principles of conflicts of law. Borrower and Bank each submit to the exclusive jurisdiction of the State and Federal courts in Boston, Massachusetts; provided, however, that nothing in this Agreement shall be deemed to operate to preclude Bank from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Bank. Borrower expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in, or subsequently provided by Borrower in accordance with, Section 10 of this Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER AND BANK EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR BOTH PARTIES TO ENTER INTO THIS AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

This Section 11 shall survive the termination of this Agreement.

12. GENERAL PROVISIONS

12.1 Termination Prior to Term Loan Maturity Date; Survival. All covenants, representations and warranties made in this Agreement continue in full force until this Agreement has terminated pursuant to its terms and all Obligations (other than inchoate indemnity obligations and any other obligations which,

by their terms, are to survive the termination of this Agreement) have been satisfied. So long as Borrower has satisfied the Obligations (other than inchoate indemnity obligations, and any other obligations which, by their terms, are to survive the termination of this Agreement, and any Obligations under Bank Services Agreements that are cash collateralized in accordance with Section 4.1 of this Agreement), this Agreement may be terminated prior to the Term Loan Maturity Date by Borrower, effective three (3) Business Days after written notice of termination is given to Bank. Those obligations that are expressly specified in this Agreement as surviving this Agreement's termination shall continue to survive notwithstanding this Agreement's termination.

12.2 Successors and Assigns. This Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not assign this Agreement or any rights or obligations under it without Bank's prior written consent (which may be granted or withheld in Bank's discretion). Bank has the right, without the consent of or notice to Borrower, to sell, transfer, assign, negotiate, or grant participation in all or any part of, or any interest in, Bank's obligations, rights, and benefits under this Agreement and the other Loan Documents (other than the Warrant, as to which assignment, transfer and other such actions are governed by the terms thereof).

12.3 Indemnification. Borrower agrees to indemnify, defend and hold Bank and its directors, officers, employees, agents, attorneys, or any other Person affiliated with or representing Bank (each, an "**Indemnified Person**") harmless against: (i) all obligations, demands, claims, and liabilities (collectively, "**Claims**") claimed or asserted by any other party in connection with the transactions contemplated by the Loan Documents; and (ii) all losses or expenses (including Bank Expenses) in any way suffered, incurred, or paid by such Indemnified Person as a result of, following from, consequential to, or arising from transactions between Bank and Borrower (including reasonable attorneys' fees and expenses), except for Claims and/or losses directly caused by such Indemnified Person's gross negligence or willful misconduct.

This Section 12.3 shall survive until all statutes of limitation with respect to the Claims, losses, and expenses for which indemnity is given shall have run.

12.4 Time of Essence. Time is of the essence for the performance of all Obligations in this Agreement.

12.5 Severability of Provisions. Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

12.6 Correction of Loan Documents. Bank may correct patent errors and fill in any blanks in the Loan Documents consistent with the agreement of the parties.

12.7 Amendments in Writing; Waiver; Integration. No purported amendment or modification of any Loan Document, or waiver, discharge or termination of any obligation under any Loan Document, shall be enforceable or admissible unless, and only to the extent, expressly set forth in a writing signed by the party against which enforcement or admission is sought. Without limiting the generality of the foregoing, no oral promise or statement, nor any action, inaction, delay, failure to require performance or course of conduct shall operate as, or evidence, an amendment, supplement or waiver or have any other effect on any Loan Document. Any waiver granted shall be limited to the specific circumstance expressly described in it, and shall not apply to any subsequent or other circumstance, whether similar or dissimilar, or give rise to, or evidence, any obligation or commitment to grant any further waiver. The Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of the Loan Documents merge into the Loan Documents.

12.8 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one Agreement.

12.9 Confidentiality. In handling any confidential information, Bank shall exercise the same degree of care that it exercises for its own proprietary information, but disclosure of information may be made: (a) to Bank's Subsidiaries or Affiliates (such Subsidiaries and Affiliates, together with Bank, collectively, "**Bank Entities**"); (b) to prospective transferees or purchasers of any interest in the Credit Extensions (provided, however, Bank shall use its best efforts to obtain any prospective transferee's or purchaser's agreement to the terms of this provision); (c) as required by law, regulation, subpoena, or other order; (d) to Bank's regulators or as otherwise required in connection with Bank's examination or audit; (e) as Bank considers appropriate in exercising remedies under the Loan Documents; and (f) to third-party service providers of Bank so long as such service providers have executed a confidentiality agreement with Bank with terms no less restrictive than those contained herein. Confidential information does not include information that is either: (i) in the public domain or in Bank's possession when disclosed to Bank, or becomes part of the public domain (other than as a result of its disclosure by Bank in violation of this Agreement) after disclosure to Bank; or (ii) disclosed to Bank by a third party, if Bank does not know that the third party is prohibited from disclosing the information.

Bank Entities may use anonymous forms of confidential information for aggregate datasets, for analyses or reporting, and for any other uses not expressly prohibited in writing by Borrower. The provisions of the immediately preceding sentence shall survive termination of this Agreement.

12.10 Right of Set Off. Borrower hereby grants to Bank, a lien, security interest and right of set off as security for all Obligations to Bank, whether now existing or hereafter arising upon and against all deposits, credits, collateral and property, now or hereafter in the possession, custody, safekeeping or control of Bank or any entity under the control of Bank (including a Bank subsidiary) or in transit to any of them. At any time after the occurrence and during the continuance of an Event of Default, without demand or notice, Bank may set off the same or any part thereof and apply the same to any Obligations of Borrower then due regardless of the adequacy of any other collateral securing the Obligations. ANY AND ALL RIGHTS TO REQUIRE BANK TO EXERCISE ITS RIGHTS OR REMEDIES WITH RESPECT TO ANY OTHER COLLATERAL WHICH SECURES THE OBLIGATIONS, PRIOR TO EXERCISING ITS RIGHT OF SETOFF WITH RESPECT TO SUCH DEPOSITS, CREDITS OR OTHER PROPERTY OF BORROWER ARE HEREBY KNOWINGLY, VOLUNTARILY AND IRREVOCABLY WAIVED.

12.11 Electronic Execution of Documents. The words "execution," "signed," "signature" and words of like import in any Loan Document shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act.

12.12 Captions. The headings used in this Agreement are for convenience only and shall not affect the interpretation of this Agreement.

12.13 Construction of Agreement. The parties mutually acknowledge that they and their attorneys have participated in the preparation and negotiation of this Agreement. In cases of uncertainty this Agreement shall be construed without regard to which of the parties caused the uncertainty to exist.

12.14 Relationship. The relationship of the parties to this Agreement is determined solely by the provisions of this Agreement. The parties do not intend to create any agency, partnership, joint venture, trust, fiduciary or other relationship with duties or incidents different from those of parties to an arm's-length contract.

12.15 Third Parties. Nothing in this Agreement, whether express or implied, is intended to: (a) confer any benefits, rights or remedies under or by reason of this Agreement on any persons other than the express parties to it and their respective permitted successors and assigns; (b) relieve or discharge the obligation or liability of any person not an express party to this Agreement; or (c) give any person not an express party to this Agreement any right of subrogation or action against any party to this Agreement.

13. DEFINITIONS

13.1 Definitions. As used in the Loan Documents, the word "shall" is mandatory, the word "may" is permissive, the word "or" is not exclusive, the words "includes" and "including" are not limiting, the singular includes the plural, and numbers denoting amounts that are set off in brackets are negative. As used in this Agreement, the following capitalized terms have the following meanings:

"**Account**" is any "account" as defined in the Code with such additions to such term as may hereafter be made, and includes, without limitation, all accounts receivable and other sums owing to Borrower.

"**Account Debtor**" is any "account debtor" as defined in the Code with such additions to such term as may hereafter be made.

"**Affiliate**" is, with respect to any Person, each other Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person's senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person's managers and members.

"**Agreement**" is defined in the preamble hereof.

"**Authorized Signer**" is any individual listed in Borrower's Borrowing Resolution who is authorized to execute the Loan Documents, including any Credit Extension request, on behalf of Borrower.

"**Bank**" is defined in the preamble hereof.

"**Bank Entities**" is defined in Section 12.9.

"**Bank Expenses**" are all audit fees and expenses, costs, and expenses (including reasonable attorneys' fees and expenses) for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including, without limitation, those incurred in connection with appeals or Insolvency Proceedings) or otherwise incurred with respect to Borrower.

"**Bank Services**" are any products, credit services, and/or financial accommodations previously, now, or hereafter provided to Borrower or any of its Subsidiaries by Bank or any Bank Affiliate, including, without limitation, any letters of credit, cash management services (including, without limitation, merchant services, direct deposit of payroll, business credit cards, and check cashing services), interest rate swap arrangements, and foreign exchange services as any such products or services may be identified in Bank's various agreements related thereto (each, a "**Bank Services Agreement**").

"**Bank Services Agreement**" is defined in the definition of Bank Services.

"**Board**" is Borrower's board of directors.

"**Borrower**" is defined in the preamble hereof.

"**Borrower's Books**" are all Borrower's books and records including ledgers, federal and state tax returns, records regarding Borrower's assets or liabilities, the Collateral, business operations or financial condition, and all computer programs or storage or any equipment containing such information.

"**Borrowing Resolutions**" are, with respect to any Person, those resolutions adopted by such Person's board of directors (and, if required under the terms of such Person's Operating Documents, stockholders) and delivered by such Person to Bank approving the Loan Documents to which such Person is a party and the transactions contemplated thereby, together with a certificate executed by its secretary on behalf of such Person certifying (a) such Person has the authority to execute, deliver, and perform its obligations under each of the Loan Documents to which it is a party, (b) that set forth as a part of or attached as an exhibit to such certificate is a true, correct, and complete copy of the resolutions then in full force and effect authorizing and ratifying the execution, delivery, and performance by such Person of the Loan Documents to which it is a party, (c) the name(s) of the

Person(s) authorized to execute the Loan Documents, including any Credit Extension request, on behalf of such Person, together with a sample of the true signature(s) of such Person(s), and (d) that Bank may conclusively rely on such certificate unless and until such Person shall have delivered to Bank a further certificate canceling or amending such prior certificate.

"**Business Day**" is any day that is not a Saturday, Sunday or a day on which Bank is closed, and if any determination of a "Business Day" shall relate to an FX Contract, the term "Business Day" shall mean a day on which dealings are carried on in the country of settlement of the Foreign Currency.

"**Cash Equivalents**" means (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc.; (c) Bank's certificates of deposit issued maturing no more than one (1) year after issue; and (d) money market funds at least ninety-five per cent. (95%) of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (c) of this definition.

"**Claims**" is defined in Section 12.3.

"**Code**" is the Uniform Commercial Code, as the same may, from time to time, be enacted and in effect in the Commonwealth of Massachusetts; provided, that, to the extent that the Code is used to define any term herein or in any Loan Document and such term is defined differently in different Articles or Divisions of the Code, the definition of such term contained in Article or Division 9 shall govern; provided further, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection, or priority of, or remedies with respect to, Bank's Lien on any Collateral is governed by the Uniform Commercial Code in effect in a jurisdiction other than the Commonwealth of Massachusetts, the term "**Code**" shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes of the provisions thereof relating to such attachment, perfection, priority, or remedies and for purposes of definitions relating to such provisions.

"**Collateral**" is any and all properties, rights and assets of Borrower described on Exhibit A.

"**Collateral Account**" is any Deposit Account, Securities Account, or Commodity Account.

"**Commodity Account**" is any "commodity account" as defined in the Code with such additions to such term as may hereafter be made.

"**Compliance Certificate**" is that certain certificate in the form attached hereto as Exhibit B.

"**Contingent Obligation**" is, for any Person, any direct or indirect liability, contingent or not, of that Person for (a) any indebtedness, lease, dividend, letter of credit or other obligation of another such as an obligation, in each case, directly or indirectly guaranteed, endorsed, co-made, discounted or sold with recourse by that Person, or for which that Person is directly or indirectly liable; (b) any obligations for undrawn letters of credit for the account of that Person; and (c) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but "Contingent Obligation" does not include endorsements in the ordinary course of business. The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under any guarantee or other support arrangement.

"**Control Agreement**" is any control agreement entered into among the depository institution at which Borrower maintains a Deposit Account or the securities intermediary or commodity intermediary at which Borrower maintains a Securities Account or a Commodity Account, Borrower, and Bank pursuant to which Bank obtains control (within the meaning of the Code) over such Deposit Account, Securities Account, or Commodity Account.

"**Copyrights**" are any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret.

"**Credit Extension**" is any Term Loan Advance or any other extension of credit by Bank for Borrower's benefit.

"**Default Rate**" is defined in Section 2.2(b).

"**Deposit Account**" is any "deposit account" as defined in the Code with such additions to such term as may hereafter be made.

"**Designated Deposit Account**" is the multicurrency account denominated in Dollars, account number xxxxxx0777 maintained by Borrower with Bank.

"**Dollars**," "**dollars**" or use of the sign "**$**" means only lawful money of the United States and not any other currency, regardless of whether that currency uses the "$" sign to denote its currency or may be readily converted into lawful money of the United States.

"**Dollar Equivalent**" is, at any time, (a) with respect to any amount denominated in Dollars, such amount, and (b) with respect to any amount denominated in a Foreign Currency, the equivalent amount therefor in Dollars as determined by Bank at such time on the basis of the then-prevailing rate of exchange in San Francisco, California, for sales of the Foreign Currency for transfer to the country issuing such Foreign Currency.

"**Draw Period A**" is the period of time from the Effective Date through the earlier to occur of (a) September 30, 2013 or (b) an Event of Default.

"**Draw Period B**" is the period of time from the occurrence of the Equity Event through the earlier to occur of (a) December 31, 2013 or (b) an Event of Default.

"**Draw Period C**" is the period of time from the occurrence of the Milestone Event through the earlier to occur of (a) December 31, 2013 or (b) an Event of Default.

"**Effective Date**" is defined in the preamble hereof.

"**Equipment**" is all "equipment" as defined in the Code with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"**Equity Event**" means confirmation by Bank that Borrower has received, after the Effective Date, but on or prior to December 31, 2013, unrestricted and unencumbered net cash proceeds in an amount of at least Five Million Dollars ($5,000,000.00) from the issuance and sale by Borrower of its equity securities in connection with Borrower's Series A financing round, with investors acceptable to Bank."

"**ERISA**" is the Employee Retirement Income Security Act of 1974, and its regulations.

"**Event of Default**" is defined in Section 8.

"**Exchange Act**" is the Securities Exchange Act of 1934, as amended.

"**Final Payment**" is, for each Term Loan Advance, a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) equal to the original principal amount of such Term Loan Advance extended by Bank multiplied by the Final Payment Percentage, due on the

earliest to occur of (a) the Term Loan Maturity Date, (b) the acceleration of any Term Loan Advance by Bank in accordance with Section 9.1

following the occurrence and during the continuance of an Event of Default, or (c) the prepayment of a Term Loan Advance pursuant to Section 2.1.1(d) or 2.1.1(e).

"**Final Payment Percentage**" is, for each Term Loan Advance, four percent (4.0%).

"**Foreign Currency**" means lawful money of a country other than the United States.

"**Funding Date**" is any date on which a Credit Extension is made to or for the account of Borrower which shall be a Business Day.

"**FX Contract**" is any foreign exchange contract by and between Borrower and Bank under which Borrower commits to purchase from or sell to Bank a specific amount of Foreign Currency on a specified date.

"**GAAP**" is generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other Person as may be approved by a significant segment of the accounting profession, which are applicable to the circumstances as of the date of determination.

"**General Intangibles**" is all "general intangibles" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation, all Intellectual Property, claims, income and other tax refunds, security and other deposits, payment intangibles, contract rights, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

"**Governmental Approval**" is any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

"Governmental Authority" is any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

"**Indebtedness**" is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations, and (d) Contingent Obligations.

"**Indemnified Person**" is defined in Section 12.3.

"**Insolvency Proceeding**" is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, or other relief.

"**Intellectual Property**" means, with respect to any Person, all of such Person's right, title, and interest in and to the following:

(a) its Copyrights, Trademarks and Patents;

(b) any and all trade secrets and trade secret rights, including, without limitation, any rights to unpatented inventions, know-how, operating manuals;

(c) any and all source code;

(d) any and all design rights which may be available to such Person;

(e) any and all claims for damages by way of past, present and future infringement of any of the foregoing, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the Intellectual Property rights identified above; and

(f) all amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents.

"**Inventory**" is all "inventory" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower's custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

"**Investment**" is any beneficial ownership interest in any Person (including stock, partnership interest or other securities), and any loan, advance or capital contribution to any Person.

"**Key Person**" is each of Borrower's (a) Chief Executive Officer, who is Alexis Borisy as of the Effective Date, and (b) Chief Scientific Officer, who is Christoph Lengauer as of the Effective Date.

"**Letter of Credit**" is a standby or commercial letter of credit issued by Bank upon request of Borrower based upon an application, guarantee, indemnity, or similar agreement.

"**Lien**" is a claim, mortgage, deed of trust, levy, charge, pledge, security interest or other encumbrance of any kind, whether voluntarily incurred or arising by operation of law or otherwise against any property.

"**Loan Documents**" are, collectively, this Agreement and any schedules, exhibits, certificates, notices, and any other documents related to this Agreement, the Warrant, the Perfection Certificate, any Bank Services Agreement, any subordination agreement, any note, or notes or guaranties executed by Borrower, and any other present or future agreement by Borrower with or for the benefit of Bank in connection with this Agreement or Bank Services, all as amended, restated, or otherwise modified.

"**Material Adverse Change**" is (a) a material impairment in the perfection or priority of Bank's Lien in the Collateral or in the value of such Collateral; (b) a material adverse change in the business, operations, or condition (financial or otherwise) of Borrower; or (c) a material impairment of the prospect of repayment of any portion of the Obligations.

"**Milestone Event**" means the delivery by Borrower to Bank, after the Effective Date, but on or prior to December 31, 2013, of evidence acceptable to Bank in Bank's sole discretion that Borrower has achieved in vivo efficacy on one of its two current lead programs.

"**Monthly Financial Statements**" is defined in Section 6.2(a).

"**Obligations**" are Borrower's obligations to pay when due any debts, principal, interest, fees, Bank Expenses, the Prepayment Premium, the Final Payment, and other amounts Borrower owes Bank now or later, whether under this Agreement, the other Loan Documents (other than the Warrant), or otherwise, including, without limitation, any interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Bank, and to perform Borrower's duties under the Loan Documents (other than the Warrant).

"**Operating Documents**" are, for any Person, such Person's formation documents, as certified by the Secretary of State (or equivalent agency) of such Person's jurisdiction of organization on a date that is no earlier than thirty (30) days prior to the Effective Date, and, (a) if such Person is a corporation, its bylaws in current form, (b) if such Person is a limited liability company, its limited liability company agreement (or similar agreement), and

(c) if such Person is a partnership, its partnership agreement (or similar agreement), each of the foregoing with all current amendments or modifications thereto.

"**Patents**" means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

"**Payment/Advance Form**" is that certain form attached hereto as Exhibit C.

"**Payment Date**" is the first (1st) Business Day of each month.

"**Perfection Certificate**" is defined in Section 5.1.

"**Permitted Indebtedness**" is:

(a) Borrower's Indebtedness to Bank under this Agreement and the other Loan Documents;

(b) Indebtedness existing on the Effective Date and shown on the Perfection Certificate;

(c) Subordinated Debt;

(d) unsecured Indebtedness to trade creditors incurred in the ordinary course of business;

(e) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of business;

(f) Indebtedness secured by Liens permitted under clauses (a) and (c) of the definition of "Permitted Liens" hereunder; and

(g) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness (a) through (f) above, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose more burdensome terms upon Borrower or its Subsidiary, as the case may be.

"**Permitted Investments**" are:

(a) Investments (including, without limitation, Subsidiaries) existing on the Effective Date and shown on the Perfection Certificate;

(b) Investments consisting of Cash Equivalents;

(c) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of Borrower;

(d) Investments consisting of deposit accounts in which Bank has a first priority perfected security interest;

(e) Investments accepted in connection with Transfers permitted by Section 7.1;

(f) Investments consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers or directors relating to the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee stock purchase plans or agreements approved by Borrower's Board of Directors;

(g) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business; and

(h) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business; provided that this paragraph (h) shall not apply to Investments of Borrower in any Subsidiary.

"**Permitted Liens**" are:

(a) Liens existing on the Effective Date and shown on the Perfection Certificate or arising under this Agreement and the other Loan Documents;

(b) Liens for taxes, fees, assessments or other government charges or levies, either (i) not due and payable or (ii) being contested in good faith and for which Borrower maintains adequate reserves on its Books, provided that no notice of any such Lien has been filed or recorded under the Internal Revenue Code of 1986, as amended, and the Treasury Regulations adopted thereunder;

(c) purchase money Liens or capital leases (i) on Equipment acquired or held by Borrower incurred for financing the acquisition of the Equipment securing no more than One Hundred Thousand Dollars ($100,000.00) in the aggregate amount outstanding, or (ii) existing on Equipment when acquired, if the Lien is confined to the property and improvements and the proceeds of the Equipment;

(d) Liens incurred in the extension, renewal or refinancing of the indebtedness secured by Liens described in (a) through (c), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness may not increase;

(e) Liens of carriers, warehousemen, suppliers, or other Persons that are possessory in nature arising in the ordinary course of business so long as such Liens attach only to Inventory, securing liabilities in the aggregate amount not to exceed Fifty Thousand Dollars ($50,000.00) and which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings which proceedings have the effect of preventing the forfeiture or sale of the property subject thereto;

(f) Liens to secure payment of workers' compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA);

(g) non-exclusive license of Intellectual Property granted to third parties in the ordinary course of business; and

(h) Liens arising from attachments or judgments, orders, or decrees in circumstances not constituting an Event of Default under Sections 8.4 and 8.7.

"**Person**" is any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

"**Prepayment Premium**" shall be an additional fee payable to Bank in amount equal to:

(a) for a prepayment made on or prior to the first (1st) anniversary of the Funding Date for such Term Loan Advance, two percent (2.0%) of the then outstanding principal amount of such Term Loan Advance as of the date immediately and prior to such prepayment;

(b) for a prepayment made after the first (1st) anniversary of the Funding Date for such Term Loan Advance, but on or prior to the second (2nd) anniversary of the Funding Date for such Term Loan Advance,

one percent (1.0%) of the then outstanding principal amount of such Term Loan Advance as of the date immediately and prior to such prepayment; and

(c) for a prepayment made after the second (2nd) anniversary of the Funding Date for such Term Loan Advance, zero percent (0.0%) of the then outstanding principal amount of such Term Loan Advance as of the date immediately and prior to such prepayment.

"**Prime Rate**" is the greater of (a) three and one quarter of one percent (3.25%), or (b) the rate of interest per annum from time to time published in the money rates section of The Wall Street Journal or any successor publication thereto as the "prime rate" then in effect; provided that if such rate of interest, as set forth from time to time in the money rates section of The Wall Street Journal, becomes unavailable for any reason as determined by Bank, the "Prime Rate" shall mean the rate of interest per annum announced by Bank as its prime rate in effect at its principal office in the State of California (such Bank announced Prime Rate not being intended to be the lowest rate of interest charged by Bank in connection with extensions of credit to debtors).

"**Registered Organization**" is any "registered organization" as defined in the Code with such additions to such term as may hereafter be made.

"**Requirement of Law**" is as to any Person, the organizational or governing documents of such Person, and any law (statutory or common), treaty, rule or regulation or determination of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject.

"**Responsible Officer**" is any of the Chief Executive Officer, President, Chief Financial Officer and Controller of Borrower.

"**Restricted License**" is any material license or other agreement with respect to which Borrower is the licensee (a) that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property, or (b) for which a default under or termination of could interfere with the Bank's right to sell any Collateral.

"**SEC**" shall mean the Securities and Exchange Commission, any successor thereto, and any analogous Governmental Authority.

"**Securities Account**" is any "securities account" as defined in the Code with such additions to such term as may hereafter be made.

"**Subordinated Debt**" is indebtedness incurred by Borrower subordinated to all of Borrower's now or hereafter indebtedness to Bank (pursuant to a subordination, intercreditor, or other similar agreement in form and substance satisfactory to Bank entered into between Bank and the other creditor), on terms acceptable to Bank.

"**Subsidiary**" is, as to any Person, a corporation, partnership, limited liability company or other entity of which shares of stock or other ownership interests having ordinary voting power (other than stock or such other ownership interests having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such corporation, partnership or other entity are at the time owned, or the management of which is otherwise controlled, directly or indirectly through one or more intermediaries, or both, by such Person. Unless the context otherwise requires, each reference to a Subsidiary herein shall be a reference to a Subsidiary of Borrower.

"**Term Loan Advance**" and "**Term Loan Advances**" are each defined in Section 2.1.1(a).

"**Term Loan A Advance**" and "**Term Loan A Advances**" are each defined in Section 2.1.1(a).

"**Term Loan B Advance**" and "**Term Loan B Advances**" are each defined in Section 2.1.1(a).

"**Term Loan C Advance**" and "**Term Loan C Advances**" are each defined in Section 2.1.1(a).

"**Term Loan Maturity Date**" is March 1, 2017.

"**Trademarks**" means any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks.

"**Transfer**" is defined in Section 7.1.

"**Warrant**" is that certain Warrant to Purchase Stock dated as of the Effective Date executed by Borrower in favor of Bank.

[Signature page follows.**]**

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as a sealed instrument under the laws of the Commonwealth of Massachusetts as of the Effective Date.

BORROWER:

BLUEPRINT MEDICINES CORPORATION

By /s/ Alexis Borisy
Name: Alexis Borisy
Title: President and Interim Chief Executive Officer

BANK:

SILICON VALLEY BANK

By /s/ Christine M. Zorzi
Name: Christine M. Zorzi
Title: VP

EXHIBIT A — COLLATERAL DESCRIPTION

The Collateral consists of all of Borrower's right, title and interest in and to the following personal property:

All goods, Accounts (including health-care receivables), Equipment, Inventory, contract rights or rights to payment of money, leases, license agreements, franchise agreements, General Intangibles (except as provided below), commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts, certificates of deposit, fixtures, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and

all Borrower's Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

Notwithstanding the foregoing, the Collateral does not include any Intellectual Property; provided, however, the Collateral shall include all Accounts and all proceeds of Intellectual Property. If a judicial authority (including a U.S. Bankruptcy Court) would hold that a security interest in the underlying Intellectual

Property is necessary to have a security interest in such Accounts and such property that are proceeds of Intellectual Property, then the Collateral shall automatically, and effective as of the Effective Date, include the Intellectual Property to the extent necessary to permit perfection of Bank's security interest in such Accounts and such other property of Borrower that are proceeds of the Intellectual Property.

Pursuant to the terms of a certain negative pledge arrangement with Bank, Borrower has agreed not to encumber any of its Intellectual Property without Bank's prior written consent.

EXHIBIT B

COMPLIANCE CERTIFICATE

TO: SILICON VALLEY BANK Date: _____
FROM: BLUEPRINT MEDICINES CORPORATION

The undersigned authorized officer of Blueprint Medicines Corporation ("Borrower") certifies that under the terms and conditions of the Loan and Security Agreement between Borrower and Bank (the "Agreement"):

(1) Borrower is in compliance for the period ending with all required covenants except as noted below; (2) there are no Events of Default; (3) all representations and warranties in the Agreement are true and correct in all material respects on this date except as noted below; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; (4) Borrower, and each of its Subsidiaries, has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 5.8 of the Agreement; and (5) no Liens have been levied or claims made against Borrower or any of its Subsidiaries relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Bank.

Attached are the required documents supporting the certification. The undersigned certifies that these are prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes. The undersigned acknowledges that no borrowings may be requested at any time or date of determination that Borrower is not in compliance with any of the terms of the Agreement, and that compliance is determined not just at the date this certificate is delivered. Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

Please indicate compliance status by circling Yes/No under "Complies" column.

Reporting Covenants	Required	Complies
Monthly financial statements with Compliance Certificate	Monthly within 30 days	o Yes o No
Annual financial statement (CPA Audited)	FYE within 180 days	o Yes o No
10-Q, 10-K and 8-K	Within 5 days after filing with SEC	o Yes o No
Board-approved projections	FYE within 60 days	o Yes o No

Other Matters

Have there been any amendments of or other changes to the capitalization table of Borrower and to the Operating Documents of Borrower or any of its Subsidiaries? If yes, provide copies of any such amendments or changes with this Compliance Certificate.	o Yes o No

The following are the exceptions with respect to the certification above: (If no exceptions exist, state "No exceptions to note.")

BLUEPRINT MEDICINES CORPORATION

By: _____
Name: _____
Title: _____

BANK USE ONLY

Received by: _____
AUTHORIZED SIGNER
Date: _____

Verified: _____
AUTHORIZED SIGNER
Date: _____

Compliance Status : o Yes o No

EXHIBIT C— LOAN PAYMENT/ADVANCE REQUEST FORM

DEADLINE FOR SAME DAY PROCESSING IS 1PM EASTERN TIME

Fax To: Date: _____

LOAN PAYMENT: BLUEPRINT MEDICINES CORPORATION

From Account # _____ To Account # _____

(Deposit Account #) (Loan Account #)

Principal $ and/or Interest $

Authorized Signature: _____ Phone Number: _____

Print Name/Title: _____

LOAN ADVANCE:

Complete *Outgoing Wire Request* section below if all or a portion of the funds from this loan advance are for an outgoing wire.

From Account # _____ To Account # _____

(Loan Account #) (Deposit Account #)

Amount of Advance $

All Borrower's representations and warranties in the Loan and Security Agreement are true, correct and complete in all material respects on the date of the request for an advance; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date:

Authorized Signature: _____ Phone Number: _____

Print Name/Title: _____

OUTGOING WIRE REQUEST:

Complete only if all or a portion of funds from the loan advance above is to be wired.

Deadline for same day processing is 1:00 p.m., Eastern Time

Beneficiary Name: _____ Amount of Wire: $

Beneficiary Bank: _____ Account Number: _____

City and State: _____

Beneficiary Bank Transit (ABA) #: _____ Beneficiary Bank Code (Swift, Sort, Chip, etc.): _____

(For International Wire Only)

Intermediary Bank: _____ Transit (ABA) #: _____

For Further Credit to: _____

Special Instruction: _____

By signing below, I (we) acknowledge and agree that my (our) funds transfer request shall be processed in accordance with and subject to the terms and conditions set forth in the agreements(s) covering funds transfer service(s), which agreements(s) were previously received and executed by me (us).

Authorized Signature: _____ 2nd Signature (if required): _____

Print Name/Title: _____ Print Name/Title: _____

Telephone #: _____ Telephone #: _____

FIRST AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This First Amendment to Loan and Security Agreement (this "**Amendment**") is entered into this 21st day of January, 2014, by and between **SILICON VALLEY BANK**, a California corporation ("**Bank**") and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Borrower**") whose address is 215 First Street, Cambridge, Massachusetts 02142.

RECITALS

A. Bank and Borrower have entered into that certain Loan and Security Agreement dated as of May 24, 2013 (as the same may from time to time be further amended, modified, supplemented or restated, the "**Loan Agreement**").

B. Bank has extended credit to Borrower for the purposes permitted in the Loan Agreement.

C. Borrower has requested that Bank amend the Loan Agreement to make certain revisions to the Loan Agreement as more fully set forth herein.

D. Bank has agreed to so amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below.

AGREEMENT

Now, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. **Definitions**. Capitalized terms used but not defined in this Amendment shall have the meanings given to them in the Loan Agreement.

2. **Amendments to Loan Agreement**.

2.1 **Section 2.1.1(c) (Repayment)**. The first sentence of Section 2.1.1(c) is amended in its entirety and replaced with the following:

"Commencing on the applicable Amortization Date, and continuing on the Payment Date of each month thereafter, Borrower shall repay each Term Loan Advance in (i) thirty-six (36) equal installments of principal, plus (ii) monthly payments of accrued interest at the rate set forth in Section 2.2(a)."

2.2 **Section 13 (Definitions)**. The following terms and their respective definitions set forth in Section 13.1 are amended in their entirety and replaced with the following:

""**Draw Period B**" is the period of time from the occurrence of the Equity Event through the earlier to occur of (a) June 30, 2014 or (b) an Event of Default."

""**Draw Period C**" is the period of time from the occurrence of the Milestone Event through the earlier to occur of (a) June 30, 2014 or (b) an Event of Default."

2.3 **Section 13 (Definitions)**. The Loan Agreement shall be amended by inserting the following new definition to appear alphabetically in Section 13.1 thereof

""**Amortization Date**" is (a) with respect to any Term Loan A Advance, April 1, 2014, and (b) with respect to any Term Loan B Advance or Term Loan C Advance, January 1, 2015."

3. **Limitation of Amendments**.

3.1 The amendments set forth in Section 2 above are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right or remedy which Bank may now have or may have in the future under or in connection with any Loan Document.

3.2 This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

4. **Representations and Warranties**. To induce Bank to enter into this Amendment, Borrower hereby represents and warrants to Bank as follows:

4.1 Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;

4.2 Borrower has the power and authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;

4.3 The organizational documents of Borrower delivered to Bank on the Effective Date remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect, except as set forth on Schedule 1 attached hereto;

4.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, have been duly authorized;

4.5 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (a) any law or regulation binding on or affecting Borrower, (b) any contractual restriction with a Person binding on Borrower, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower;

4.6 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on either Borrower, except as already has been obtained or made; and

4.7 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.

5. **Ratification of Perfection Certificate**. Borrower hereby ratifies, confirms and reaffirms, all and singular, the terms and disclosures contained in a certain Perfection Certificate dated as of May 24, 2013 between Borrower and Bank, and acknowledges, confirms and agrees the disclosures and information Borrower provided to Bank in said Perfection Certificate have not changed, as of the date hereof, except as set forth on Schedule 2 attached hereto.

6. **Integration**. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Amendment and the Loan Documents merge into this Amendment and the Loan Documents.

7. **Counterparts**. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

8. **Effectiveness**. This Amendment shall be deemed upon (a) the due execution and delivery to Bank of this Amendment by each party hereto, and (b) Borrower's payment of Bank's legal fees and expenses incurred in connection with this Amendment.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as a sealed instrument under the laws of the Commonwealth of Massachusetts and delivered as of the date first written above.

BANK		**BORROWER**	
SILICON VALLEY BANK		BLUEPRINT MEDICINES CORPORATION	
By:	/s/ Christine M. Zorzi	By:	/s/ Alexis Borisy
Name:	Christine M. Zorzi	Name:	Alexis Borisy
Title:	Vice President	Title:	Interim President & CEO

Schedule 1

Restated Certificate of Incorporation.
Amended and Restated Investor Rights Agreement.
Series B Convertible Preferred Stock Purchase Agreement and Disclosure Schedules.
Amended and Restated Stockholders Agreement.

Schedule 2

In Section 10, the Interim President & CEO is Alexis Borisy; the Treasurer is Kyle Kuvalanka; the Secretary is Christine Bellon.

An updated capitalization table is attached.

An updated list of material agreements follows:

Service Agreements

Other Party to Contract	Date of Contract	Assignable in Sale of All Assets of Company
Alliance Pharma	08-07-2013	Y
Averica Discovery Services	01-14-2014	Y
Crown Bio	04-24-2013	Y
Horizon	06-10-2013	Y
Epistem	11-04-2013	Y
OncoDesign		Y
Orchard Partners	05-10-2013	Y

License Agreements

Other Party to Contract	Date of Contract	Assignable in Sale of All Assets of Company
Duke University	10-16-2013	Y

Material Transfer Agreements

Other Party to Contract	Date of Contract	Assignable in Sale of All Assets of Company
Dana Farber Cancer Institute	12-03-2013	Y
Duke University	08-16-2013	Y
Duke University	09-24-2013	Y
Japanese Collection JCRB	07-10-2013	Y
Korean Cell Line Bank	07-08-2013	Y

Collaboration Agreements

Other Party to Contract	Date of Contract	Assignable in Sale of All Assets of Company
University of Vienna	06-26-2013	Y

Consulting

Other Party to Contract	Date of Contract	Assignable in Sale of All Assets of Company
Leanne Bedard	09-16-2013	Y
James Boyer	01-07-2014	Y
Friedman	09-20-2013	Y
Rick Friesen	05-09-2013	Y

Other Party to Contract	Date of Contract	Assignable in Sale of All Assets of Company
Elizabeth Kwong	05-14-2013	Y
Veronique Laurialt	07-01-2013	Y
Wayne Luke	11-13-2013	Y
Stephane Ouellet	12-06-2013	Y

Software

Other Party to Contract	Date of Contract	Assignable in Sale of All Assets of Company
Intralinks	08-07-2013	Y

An updated list of patent applications follows:

U.S. Patent Application No. 13/939,967, filed July 11, 2013.

PCT Application No. PCT7US13/50106, filed July 11, 2013.

U.S. Provisional Patent Application No. 61/860,148, filed July 30, 2013.

U.S. Provisional Patent Application No. 61/860,153, filed July 30, 2013.

U.S. Provisional Patent Application No. 61/860,160, filed July 30, 2013.

U.S. Provisional Patent Application No. 61/880,438, filed September 20, 2013.

U.S. Provisional Patent Application No. 61/880,450, filed September 20, 2013.

U.S. Provisional Patent Application No. 61/880,455, filed September 20, 2013.

U.S. Provisional Patent Application No. 61/880,470, filed September 20, 2013.

U.S. Provisional Patent Application No. 61/880,482, filed September 20, 2013.

U.S. Provisional Patent Application No. 61/880,494, filed September 20, 2013.

U.S. Provisional Patent Application No. 61/880,509, filed September 20, 2013.

U.S. Provisional Patent Application No. 61/892,077, filed October 17, 2013.

U.S. Provisional Patent Application No. 61/892,086, filed October 17, 2013.

U.S. Provisional Patent Application No. 61/895,472, filed October 25, 2013.

U.S. Patent Application No. 14/140,856, filed December 26, 2013.

Uruguay Patent Application No. 35.249, filed December 27, 2013.

Venezuela Patent Application No. 01719-2013, filed Dec. 27, 2013.

U.S. Provisional Patent Application No. 61/927782, filed January 15, 2014.

U.S. Provisional Patent Application No. 61/927793, filed January 15, 2014.

SECOND AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Second Amendment to Loan and Security Agreement (this "**Amendment**") is entered into this 27th day of June, 2014, by and between **SILICON VALLEY BANK**, a California corporation ("**Bank**") and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Borrower**") whose address is 215 First Street, Cambridge, Massachusetts 02142.

RECITALS

A. Bank and Borrower have entered into that certain Loan and Security Agreement dated as of May 24, 2013, as amended by a certain First Amendment to Loan and Security Agreement dated as of January 21, 2014 (as the same may from time to time be further amended, modified, supplemented or restated, the "**Loan Agreement**").

B. Bank has extended credit to Borrower for the purposes permitted in the Loan Agreement.

C. Borrower has requested that Bank amend the Loan Agreement to make certain revisions to the Loan Agreement as more fully set forth herein.

D. Bank has agreed to so amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. **Definitions**. Capitalized terms used but not defined in this Amendment shall have the meanings given to them in the Loan Agreement.

2. **Amendments to Loan Agreement**.

2.1 **Section 13 (Definitions)**. The following term and its respective definition set forth in Section 13.1 is amended **in its entirety and replaced with the following:**

" **"Term Loan Maturity Date**" is (a) with respect to any Term Loan A Advance, March 1, 2017, and (b) with respect to any Term Loan B Advance or Term Loan C Advance, December 1, 2017."

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3. **Integration**. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Amendment and the Loan Documents merge into this Amendment and the Loan Documents.

4. **Counterparts**. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

5. **Effectiveness**. This Amendment shall be deemed upon the due execution and delivery to Bank of this Amendment by each party hereto.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as a sealed instrument under the laws of the Commonwealth of Massachusetts and delivered as of the date first written above.

BANK		**BORROWER**	
SILICON VALLEY BANK		BLUEPRINT MEDICINES CORPORATION	
By:	/s/ Christine M. Zorzi	By:	/s/ Kim Drapkin
Name:	Christine M. Zorzi	Name:	Kim Drapkin
Title:	Vice President	Title:	CFO & Treasurer

THIRD AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Third Amendment to Loan and Security Agreement (this "**Amendment**") is entered into this 4th day of November, 2014, by and between **SILICON VALLEY BANK**, a California corporation ("**Bank**") and **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation ("**Borrower**") whose address is 215 First Street, Cambridge, Massachusetts 02142.

RECITALS

A. Bank and Borrower have entered into that certain Loan and Security Agreement dated as of May 24,2013, as amended by a certain First Amendment to Loan and Security Agreement dated as of January 21,2014 (the "**First Amendment**"), and as amended by a certain Second Amendment to Loan and Security Agreement dated June 27, 2014 (as the same may from time to time be further amended, modified, supplemented or restated, the "**Loan Agreement**").

B. Bank has extended credit to Borrower for the purposes permitted in the Loan Agreement.

C. Borrower has requested that Bank amend the Loan Agreement to make certain revisions to the Loan Agreement as more fully set forth herein.

D. Bank has agreed to so amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. **Definitions**. Capitalized terms used but not defined in this Amendment shall have the meanings given to them in the Loan Agreement.

2. **Amendments to Loan Agreement**.

2.1 **Section 2.1.2 (2014 Term Loan)**. The Loan Agreement shall be amended by inserting the following new provision to appear as Section 2.1.2 (2014 Term Loan) thereof:

"2.1.2 2014 Term Loan.

(a) Availability. Subject to the terms and conditions of this Agreement, Bank shall make one advance (the "**2014 Term Loan Advance**") available to Borrower in an amount of up to Five Million Dollars ($5,000,000.00)

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on the 2014 Effective Date. After repayment, the 2014 Term Loan Advance may not be reborrowed.

(b) Interest Period. Commencing on the first Payment Date of the month following the month in which the Funding Date of the 2014 Term Loan Advance occurs, and continuing on each Payment Date thereafter, Borrower shall make monthly payments of interest, in arrears, on the outstanding principal amount of the 2014 Term Loan Advance at the rate set forth in Section 2.2(a).

(c) Repayment. Commencing on December 1, 2015, and continuing on the Payment Date of each month thereafter, Borrower shall repay the 2014 Term Loan Advance in (i) thirty-six (36) equal installments of principal, plus (ii) monthly payments of accrued interest at the rate set forth in Section 2.2(a). All outstanding principal and accrued and unpaid interest with respect to the 2014 Term Loan Advance, and all other outstanding Obligations with respect to the 2014 Term Loan Advance, is due and payable in full on the 2014 Term Loan Maturity Date.

(d) Mandatory Prepayment Upon an Acceleration. If the 2014 Term Loan Advance is accelerated by Bank in accordance with Section 9.1 following the occurrence and during the continuance of an Event of Default, Borrower shall immediately pay to Bank an amount equal to the sum of: (i) all outstanding principal plus accrued and unpaid interest, (ii) the applicable Prepayment Premium, (iii) the Final Payment, plus (iv) all other sums, if any, that shall have become due and payable under the Loan Documents, including interest at the Default Rate with respect to any past due amounts.

(e) Permitted Prepayment of the 2014 Term Loan. Borrower shall have the option to prepay all, but not less than all, of the Term Loan Advances advanced by Bank under this Agreement, provided Borrower (i) provides written notice to Bank of its election to prepay the 2014 Term Loan Advance at least five (5) days prior to such prepayment, and (ii) pays, on the date of such prepayment (A) all outstanding principal plus accrued and unpaid interest, (B) the applicable Prepayment Premium, (C) the Final Payment, plus (D) all other sums, if any, that shall have become due and payable under the Loan Documents, including interest al the Default Rate with respect to any past due amounts."

2.2 **Section 2.2(a) (Interest Rate)**. Section 2.2(a) is amended in its entirety and replaced with the following:

" (a) Interest Rate. Subject to Section 2.2(b), the principal amount outstanding for each Term Loan Advance and the 2014 Term Loan Advance shall accrue interest at a fixed per annum rate equal to two percent (2.0%) above the Prime Rate, which interest shall be determined by Bank on the Funding Date of the applicable Term Loan Advance and the 2014 Term Loan Advance and shall, in all cases, be payable monthly in accordance with Section 2.2(c) below."

2.3 **Section 8.11 (2014 Equity Event)**. The Loan Agreement shall be amended by inserting the following new provision to appear as Section 8.11 (2014 Equity Event) thereof:

"**8.11 2014 Equity Event**. The failure of the 2014 Equity Event to occur on or before December 31, 2014."

2.4 **Section 13 (Definitions)**. The following terms and their respective definitions set forth in Section 13.1 are amended in their entirety and replaced with the following:

" "**Credit Extension**" is any Term Loan Advance, 2014 Term Loan Advance, or any other extension of credit by Bank for Borrower's benefit."

" "**Final Payment**" is:

(a) for each Term Loan Advance, a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) equal to the original principal amount of such Term Loan Advance extended by Bank multiplied by the Final Payment Percentage, due on the earliest to occur of (a) the Term Loan Maturity Date, (b) the acceleration of any Term Loan Advance by Bank in accordance with Section 9.1 following the occurrence and during the continuance of an Event of Default, or (c) the prepayment of a Term Loan Advance pursuant to Section 2.1.1(d) or 2.1.1(e), and

(b) for the 2014 Term Loan Advance, a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) equal to the original principal amount of the 2014 Term Loan Advance extended by Bank multiplied by the Final Payment Percentage, due on the earliest to occur of (a) the 2014 Term Loan Maturity Date, (b) the acceleration of the 2014 Term Loan Advance by Bank in accordance with Section 9.1 following the occurrence and during the continuance of an Event of Default, or (c) the prepayment of the 2014 Term Loan Advance pursuant to Section 2.1.2(d) or 2.1.2(e)."

" **Final Payment Percentage**" is, for each Term Loan Advance and the 2014 Term Loan Advance, four percent (4.0%)."

" "**Prepayment Premium**" shall be an additional fee payable to Bank in amount equal to for:

(a) Term Loan Advances

(i) for a prepayment made on or prior to the first (1st) anniversary of the Funding Date for such Term Loan Advance, two percent (2.0%) of the then outstanding principal amount of such Term Loan Advance as of the date immediately and prior to such prepayment;

(ii) for a prepayment made after the first (1st) anniversary of the Funding Date for such Term Loan Advance, but on or prior to the second (2nd) anniversary of the Funding Date for such Term Loan Advance, one percent (1.0%) of the then outstanding principal amount of such Term Loan Advance as of the date immediately and prior to such prepayment; and

(iii) for a prepayment made after the second (2nd) anniversary of the Funding Date for such Term Loan Advance, zero percent (0.0%) of the then outstanding principal amount of such Term Loan Advance as of the date immediately and prior to such prepayment; and

(b) 2014 Term Loan Advance

(i) for a prepayment made on or prior to the first (1st) anniversary of the Funding Date of the 2014 Term Loan Advance, two percent (2.0%) of the then outstanding principal amount of the 2014 Term Loan Advance as of the date immediately and prior to such prepayment;

(ii) for a prepayment made after the first (1st) anniversary of the Funding Date of the 2014 Term Loan Advance, but on or prior to the second (2nd) anniversary of the Funding Date for the 2014 Term Loan Advance, one percent (1.0%) of the then outstanding principal amount of the 2014 Term Loan Advance as of the date immediately and prior to such prepayment; and

(iii) for a prepayment made after the second (2nd) anniversary of the Funding Date of the 2014 Term Loan Advance, zero percent (0.0%) of the then outstanding principal amount of the 2014 Term Loan Advance as of the date immediately and prior to such prepayment."

" "**Warrant**" means collectively, that certain (a) Warrant to Purchase Stock dated as of the Effective Date executed by Borrower in favor of Bank, and (b) Warrant to Purchase Stock dated as of the 2014 Effective Date executed by Borrower in favor of Bank, each as may be amended, modified, supplemented or restated."

2.5 **Section 13 (Definitions)**. The following new terms and their respective definitions are inserted to appear alphabetically in Section 13.1:

" "**2014 Effective Date**" means November 4, 2014."

" "**2014 Equity Event**" means confirmation by Bank that Borrower has received, after the 2014 Effective Date, but on or prior to December 31, 2014, unrestricted and unencumbered net cash proceeds in an amount of at least Thirty Million Dollars ($30,000,000.00) from the issuance and sale by Borrower of its equity securities, with investors acceptable to Bank."

" "**2014 Term Loan Advance**" is defined in Section 2.1.2(a) hereof."

" "**2014 Term Loan Maturity Date**" is November 1, 2018."

2.6 **Exhibit B (Compliance Certificate)**. The Compliance Certificate is amended in its entirety and replaced with the Compliance Certificate attached as Schedule 1 hereto.

3. **Limitation of Amendments**.

3.1 The amendments set forth in Section 2 above are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right or remedy which Bank may now have or may have in the future under or in connection with any Loan Document.

3.2 This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

4. **Representations and Warranties**. To induce Bank to enter into this Amendment, Borrower hereby represents and warrants to Bank as follows:

4.1 Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct in all material respects as of such date), and (b) no Event of Default has occurred and is continuing;

4.2 Borrower has the power and authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;

4.3 The organizational documents of Borrower delivered to Bank in connection with this Amendment remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

4.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, have been duly authorized;

4.5 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (a) any law or regulation binding on or affecting Borrower, (b) any contractual restriction with a Person binding on Borrower, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower;

4.6 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower, except as already has been obtained or made; and

4.7 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and by general equitable principles.

5. **Updated Perfection Certificate**. Borrower has delivered an updated Perfection Certificate in connection with this Loan Modification Agreement dated as of , 2014 (the "Updated Perfection Certificate"), which Updated Perfection Certificate shall supersede in all respects that certain Perfection Certificate dated as of May 24, 2013. Borrower agrees that all references in the Loan Agreement to "Perfection Certificate" shall hereinafter be deemed to be a reference to the Updated Perfection Certificate.

6. **Integration**. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Amendment and the Loan Documents merge into this Amendment and the Loan Documents.

7. **Counterparts**. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

8. **Effectiveness**. This Amendment shall be deemed upon (a) the due execution and delivery to Bank of this Amendment by each party hereto, and (b) Borrower's payment of Bank's legal fees and expenses incurred in connection with this Amendment.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as a sealed instrument under the laws of the Commonwealth of Massachusetts and delivered as of the date first written above.

BANK		**BORROWER**	
SILICON VALLEY BANK		BLUEPRINT MEDICINES CORPORATION	
By:	/s/ Matthew Griffiths	By:	/s/ Jeffrey Albers
Name:	Matthew Griffiths	Name:	Jeffrey Albers
Title:	Vice President	Title:	CEO

SCHEDULE 1

EXHIBIT B

COMPLIANCE CERTIFICATE

TO: SILICON VALLEY BANK Date:
FROM: BLUEPRINT MEDICINES CORPORATION

Date: _____

The undersigned authorized officer of Blueprint Medicines Corporation ("Borrower") certifies that under the terms and conditions of the Loan and Security Agreement between Borrower and Bank (the "Agreement"):

(1) Borrower is in compliance for the period ending with all required covenants except as noted below; (2) there are no Events of Default; (3) all representations and warranties in the Agreement are true and correct in all material respects on this date except as noted below; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; (4) Borrower, and each of its Subsidiaries, has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 5.8 of the Agreement; and (5) no Liens have been levied or claims made against Borrower or any of its Subsidiaries relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Bank.

Attached are the required documents supporting the certification. The undersigned certifies that these are prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes. The undersigned acknowledges that no borrowings may be requested at any time or date of determination that Borrower is not in compliance with any of the terms of the Agreement, and that compliance is determined not just at the date this certificate is delivered. Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

Please indicate compliance status by circling Yes/No under "Complies" column.

Reporting Covenants	Required	Complies
Monthly financial statements with Compliance Certificate	Monthly within 30 days	o Yes o No
Annual financial statement (CPA Audited)	FYE within 180 days	o Yes o No
10-Q, 10-Kand 8-K	Within 5 days after filing with SEC	o Yes o No
Board-approved projections	FYE within 60 days	o Yes o No
2014 Equity Event	$30M in equity, after 2014 Effective Dale, on or before 12/31/14	o Yes o No

Other Matters

Have there been any amendments of or other changes to the capitalization table of Borrower and to the Operating Documents of Borrower or any of its Subsidiaries? If yes, provide copies of any such amendments or changes with this Compliance Certificate. o Yes o No

The following are the exceptions with respect to the certification above: (If no exceptions exist, state "No exceptions to note.")

BLUEPRINT MEDICINES CORPORATION

By: _____
Name: _____
Title: _____

BANK USE ONLY

Received by: _____
Authorized Signer

Date: _____

Verified: _____
Authorized Signer

Date: _____

Compliance Status: o Yes o No

SCHEDULE 2

Updates to the Perfection Certificate

Exhibit 10.10

*****Text Omitted and Filed Separately with the Securities and Exchange Commission Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 230.406**

RESEARCH, DEVELOPMENT & COMMERCIALIZATION AGREEMENT

BY AND BETWEEN

BLUEPRINT MEDICINES CORPORATION

AND

ALEXION PHARMA HOLDING

DATED AS OF MARCH 2, 2015

*****Text Omitted and Filed Separately with the Securities and Exchange Commission Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 230.406**

TABLE OF CONTENTS

*****Text Omitted and Filed Separately with the Securities and Exchange Commission Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 230.406**

RESEARCH, DEVELOPMENT & COMMERCIALIZATION AGREEMENT

THIS RESEARCH, DEVELOPMENT & COMMERCIALIZATION AGREEMENT (the "**Agreement**") is entered into as of March 2, 2015 (the "**Effective Date**") by and among **BLUEPRINT MEDICINES CORPORATION**, a Delaware corporation having its principal place of business at 215 First Street, Cambridge, MA 02142, United States ("**Blueprint**"), **ALEXION PHARMA HOLDING**, an unlimited liability company incorporated under the laws of Ireland having its principal place of business at Canon's Court, 22 Victoria Street, Hamilton HM 12 Bermuda ("**Alexion**"). Blueprint and Alexion are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**."

BACKGROUND

Blueprint is a biopharmaceutical company with expertise in the research and development of highly selective kinase inhibitors.

Alexion is a biopharmaceutical company with expertise in the research, development, manufacture and commercialization of human therapeutic product candidates.

Alexion and Blueprint desire to collaborate together to research, develop and commercialize Compounds and Licensed Products (all as defined below), in accordance with the terms and conditions set forth herein.

NOW THEREFORE, in consideration of the foregoing premises and the mutual promises, covenants and conditions contained in this Agreement, the Parties agree as follows:

ARTICLE 1

DEFINITIONS

As used in this Agreement, the following initially capitalized terms, whether used in the singular or plural form, will have the meanings set forth in this Article 1.

1.1 "**Abandonment Notice**" has the meaning set forth in Section 11.4(b).

1.2 "**Affiliate**" means, with respect to a particular Person, a person, corporation, partnership, or other entity that controls, is controlled by or is under common control with such Person. For the purposes of this definition, the word "control" (including, with correlative meaning, the terms "controlled by" or "under the common control with") means the actual power, either directly or indirectly through one or more intermediaries, to direct or cause the direction of the management and policies of such entity, whether by the ownership of more than fifty percent (50%) of the voting stock of such entity, or by contract or otherwise.

1.3 "**Agreement**" has the meaning set forth in the preamble hereto.

1.4 "**Alexion**" has the meaning set forth in the preamble to this Agreement.

1.5 "**Alexion Claims**" has the meaning set forth in Section 9.1.

1.6 "**Alexion Damages**" has the meaning set forth in Section 9.1.

1.7 "**Alexion Indemnitees**" has the meaning set forth in Section 9.1.

*****Text Omitted and Filed Separately with the Securities and Exchange Commission Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 230.406**

1.8 "**Alexion IP**" has the meaning set forth in Section 7.1(b).

1.9 "**Alexion Licensed Technology**" means any and all Patents and Information Controlled by Alexion or its Affiliates (solely or jointly with Blueprint or a Third Party) that (i) is necessary or useful for Blueprint to perform its obligations under the Research Plan and (ii) is in existence as of the Effective Date or during the Research Term, including the Alexion IP, the Alexion Other IP and Alexion's interest in the Joint Other IP to the extent so Controlled.

1.10 "**Alexion Other IP**" has the meaning set forth in Section 7.1(c)(i).

1.11 "**Alliance Manager**" has the meaning set forth in Section 3.2.

1.12 "**Applicable Law**" means the applicable laws, rules, regulations, guidelines and other requirements of Governmental Authorities, including Regulatory Authorities, that may be in effect from time to time, including GLP, GMP and the Foreign Corrupt Practices Act of 1977, as amended.

1.13 "**Blueprint**" has the meaning set forth in the preamble to this Agreement.

1.14 "**Blueprint Claims**" has the meaning set forth in Section 9.2.

1.15 "**Blueprint Damages**" has the meaning set forth in Section 9.2.

1.16 "**Blueprint Indemnitees**" has the meaning set forth in Section 9.2.

1.17 "**Blueprint IP**" has the meaning set forth in Section 7.1(a).

1.18 "**Blueprint IP Patents**" has the meaning set forth in Section 7.2(d)(i).

1.19 "**Blueprint Licensed Technology**" means (i) the Blueprint IP and (ii) any and all other Patents and Information Controlled by Blueprint or its Affiliates (solely or jointly with Alexion or a Third Party), including the Blueprint Other IP and Blueprint's interest in the Joint Other IP to the extent so Controlled that (a) is necessary or useful to Exploit Compounds or Licensed Products in the Field and (b) is in existence as of the Effective Date or comes into existence during the period from the Effective Date until […***…] years after the end of the Research Term.

1.20 "**Blueprint Other IP**" has the meaning set forth in Section 7.1(c)(i).

1.21 "**Business Day**" means a day other than (a) a Saturday or a Sunday or (b) a bank or other public holiday in New York, New York, or Boston, Massachusetts.

1.22 "**Claim**" has the meaning set forth in Section 9.3.

1.23 "**Clinical Milestone Events**" has the meaning set forth in Section 6.2(c).

1.24 "**Clinical Trials**" means Phase I Clinical Trials, Phase II Clinical Trials, Phase III Clinical Trials or Phase IV Clinical Trials.

1.25 "**Combination Product**" means a Licensed Product that, in addition to containing as an active ingredient a Compound, also contains at least one other active pharmaceutical ingredient that is not a Compound.

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1.26 "**Commercialize**" or "**Commercialization**" means, together with all correlative meanings, the commercial manufacture, marketing, promotion, sale or distribution of a product, including commercial activities conducted in preparation for a product launch.

1.27 "**Commercially Reasonable Efforts**" means, with respect to the Development or Commercialization of a Licensed Product, that level of efforts and resources commonly dedicated in the research-based pharmaceutical industry by a company to a program of similar commercial potential and market size, risk and at a similar stage in its lifecycle, in each case taking into account Relevant Factors and Regulatory Events.

1.28 "**Competing Activities**" has the meaning set forth in Section 13.7(c).

1.29 "**Competitive Infringement**" has the meaning set forth in Section 7.2(f)(i)(A).

1.30 "**Competitive Product(s)**" means, with respect to a Patent Challenge in a country, a product or products (a) that is or are Covered by one or more claims that fall within the scope of the challenged Patent, and (b) that has, or in the aggregate have, a Material Impact on a Licensed Product that is Covered by such challenged Patent.

1.31 "**Compound(s)**" means any molecule that is (i) discovered, developed, generated, identified or invented by Blueprint or Alexion, or delivered to Alexion, in each case under the Research Plan during the Research Term, (ii) the molecules listed on Exhibit A to this Agreement, (iii) […***…] of clauses (i) or (ii) herein, and (iv) any […***…] of clauses (i), (ii) or (iii), or any other molecules, in each case in this clause (iv) to the extent identified, confirmed, studied, Developed or otherwise made pursuant to the practice of the license of Section 5.1(a)(i)(B) or Section 5.1(a)(i)(C)(2).

1.32 "**Confidential Information**" means, with respect to a Party or any of its Affiliates, and subject to Section 10.2, all Information of such Party or such Affiliate that is disclosed to the other Party or any of its Affiliates under this Agreement.

1.33 "**Control**" means, with respect to any material, Information, Patent, Regulatory Materials or Regulatory Approvals, the possession (whether by ownership or license) by a Party or its Affiliates of the ability to grant to the other Party a license or access as provided herein to such item (i) without violating the terms of any agreement or other arrangement with any Third Party in existence as of the time such Party or its Affiliates would first be required hereunder to grant the other Party such license or access and (ii) without being obligated to pay any royalties or other consideration therefor, except for that which Blueprint in-licenses and under which Alexion elects to take a sublicense and agrees to make the associated payments pursuant to Section 5.5(b) which shall be considered under the Control of Blueprint.

1.34 "**Cover**" means, with reference to a Patent, that the making, using, selling, offering for sale or importing of a composition of matter or practice of a method would infringe a Valid Claim of such Patent in the country in which such activity occurs.

1.35 "**CPI**" means the Consumer Price Index for the US City Average (all times).

1.36 "**Develop**" or "**Development**" means, together with all correlative meanings, pre-clinical studies (other than those specified in Section 1.105) and clinical drug development activities, conducted before or after obtaining Regulatory Approval that are reasonably related to or leading to the clinical development, preparation, and submission of data and information to a Regulatory Authority for the

purpose of obtaining, supporting or expanding Regulatory Approval or to the appropriate body for obtaining, supporting or expanding pricing and reimbursement approval, including without limitation, all activities related to […***…] (including […***…]), design and conduct of Clinical Trials and any other clinical trials or studies, regulatory affairs, statistical analysis, report writing, and regulatory filing creation and submission (including the services of outside advisors and consultants in connection therewith). Development expressly excludes (a) Research, (b) Commercialization and (c) the Manufacture and accumulation of commercial inventory of a product.

1.37 "**Development Candidate**" means a Compound constituting a Pre-Development Candidate that is selected by the JSC as satisfying the applicable criteria for a development candidate set forth in the Research Plan.

1.38 "**Diligent Efforts**" means, with respect to the efforts to be expended by any Party with respect to any objective under this Agreement, active and sustained efforts to conduct the applicable activity, or to attempt to achieve the applicable requirement or goal, in a prompt and expeditious manner, as is reasonably practicable under the circumstances consistent with the terms of this Agreement.

1.39 […***…].

1.40 "**Effective Date**" has the meaning set forth in the preamble to this Agreement.

1.41 "**EMA**" means the European Medicines Agency or its successor.

1.42 "**EU**" means all of the European Union member states as of the applicable time during the Term.

1.43 "**Excluded Country**" has the meaning set forth in Section 7.2(d)(i).

1.44 "**Exclusivity Term**" means the period commencing on the Effective Date and continuing until termination or expiration of this Agreement.

1.45 "**Executive Officer**" means (a) in the case of Alexion, any senior executive of Alexion or any of its Affiliates, which senior executive is designated by Alexion and reports directly to the chief executive officer of Alexion, but who is not a member of the JSC; and (b) in the case of Blueprint, the chief executive officer of Blueprint, who will not be member of the JSC.

1.46 "**Existing Confidentiality Agreement**" means the Confidentiality Agreement entered into by Alexion and Blueprint, dated […***…].

1.47 "**Exploit**" means, collectively, to make, have made, use, sell, offer for sale, import, export and otherwise exploit, including Research, Develop, Manufacture and Commercialize.

1.48 "**FDA**" means the United States Food and Drug Administration or its successor.

1.49 "**FD&C Act**" means the United States Federal Food, Drug and Cosmetic Act, as amended.

1.50 "**Field**" means […***…].

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1.51 "**First Commercial Sale**" means, with respect to a Licensed Product and a country, the first sale to a Third Party of such Licensed Product in such country after all Regulatory Approvals, including any pricing or reimbursement approvals, as applicable, have been obtained in such country.

1.52 "**First Pre-Commercial Sale Date**" has the meaning set forth in Section 6.4(c)(i)(C).

1.53 […***…].

1.54 "**FTE**" means the equivalent of a full-time individual's work time for a twelve (12) month period, where such individual is an appropriately qualified and trained person and where "full-time" is determined by […***…] hours per year. In the event that any individual who works full-time during a given fiscal year works partially on Compounds or Licensed Products or in furtherance of the Research Program and partially on other work outside the Research Program in the fiscal year, then the full-time equivalent to be attributed to such individual's work hereunder for such fiscal year will be equal to the percentage of such individual's total work time in such fiscal year that such individual spent working on Compounds or Licensed Products or in furtherance of the Research Program as recorded monthly in an appropriate time-sheet system. FTE efforts will not include the work of general corporate or administrative personnel.

1.55 "**FTE Rate**" means […***…] per FTE for the calendar year 2015 (including lab supplies, equipment, overhead, etc.), subject to annual increases beginning on […***…] to reflect any year to year percentage increase (as the case may be) in the CPI for 2015 and each subsequent calendar year, such percentage increase not to exceed […***…] percent […***…] in any one calendar year with any excess percentage increase over such maximum to be carried over to the next calendar year to adjust the FTE Rate for such year but subject again to the same maximum percentage increase.

1.56 "**GAAP**" means generally accepted accounting principles, consistently applied.

1.57 "**Good Laboratory Practices**" or "**GLP**" means the then-current practices and procedures set forth in Title 21, United States Code of Federal Regulations, Part 58 (as amended), and any other regulations, guidelines or guidance documents relating to good laboratory practices, or any foreign equivalents thereof in the country in which such studies or clinical trials are conducted.

1.58 "**Good Manufacturing Practices**" or "**GMP**" means the then-current practices and procedures set forth in Title 21, United States Code of Federal Regulations, Parts 210 — 211, ICH Guideline Q7A, and any other regulations, guidelines or guidance documents relating to good manufacturing practices, or any foreign equivalents thereof in the country in which such manufacturing activities are conducted.

1.59 "**Governmental Authority**" means any multi-national, federal, state, local, municipal or other government authority of any nature (including any governmental division, subdivision, department, agency, bureau, branch, office, commission, council, court or other tribunal).

1.60 "**IND**" means (a) an Investigational New Drug Application as defined in the FD&C Act and applicable regulations promulgated thereunder by the FDA, or (b) the equivalent application to the equivalent Regulatory Authority in any other regulatory jurisdiction, the filing of which is necessary to initiate or conduct clinical testing of a pharmaceutical product in humans in such jurisdiction.

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1.61 "**IND-Ready**" means the stage of Development at which a Licensed Product has the necessary components to support a complete IND to the FDA in accordance with the requirements set forth in 21 C.F.R. 312 Subpart B (including GLP toxicology studies completed, all requisite pharmacology and Drug Metabolism and Pharmacokinetic activities completed, clinical trial material finished goods released and technical study reports for IND sections available) and equivalent filings in other jurisdictions.

1.62 "**Indemnified Party**" has the meaning set forth in Section 9.3.

1.63 "**Indemnifying Party**" has the meaning set forth in Section 9.3.

1.64 "**Indemnified Person**" means, in the case of Alexion, any Alexion Indemnitee, and in the case of Blueprint, any Blueprint Indemnitee.

1.65 "**Industry Transaction**" has the meaning set forth in Section 13.7.

1.66 "**Industry Transaction Notice**" has the meaning set forth in Section 11.2(b).

1.67 "**Information**" means any data, results, and information of any type whatsoever, in any tangible or intangible form, including know-how, trade secrets, practices, techniques, methods, processes, inventions, developments, specifications, formulations, formulae, materials or compositions of matter of any type or kind (patentable or otherwise), software, algorithms, marketing reports, clinical and non-clinical study reports, regulatory submission documents and summaries, technology, test data including pharmacological, biological, chemical, biochemical, toxicological, and clinical test data, analytical and quality control data, stability data, studies and procedures.

1.68 "**In Vivo PoC**" means the achievement of the in vivo PoC criteria, as set forth in the Research Plan.

1.69 "**Joint Other IP**" has the meaning set forth in Section 7.1(c)(i).

1.70 "**Joint Project Team**" or "**JPT**" has the meaning set forth in Section 3.4(a).

1.71 "**Joint Steering Committee**" or "**JSC**" has the meaning set forth in Section 3.3(a).

1.72 "**Key Personnel**" means the […***…] Blueprint research and discovery personnel listed on Schedule 1.72.

1.73 "**Lead Series**" means a group of Compounds that is selected by the JSC as satisfying the applicable structural and other criteria therefor set forth in the Research Plan.

1.74 "**Licensed Product**" means any pharmaceutical preparation containing a Compound as an active ingredient.

1.75 "**Major Markets**" means […***…]

1.76 "**Manufacture**" means, with respect to a product, those manufacturing activities involved in or relating to (a) manufacturing process development, (b) CMC activities including analytical development and qualification, formulation development, solubility testing, bulk drug substance manufacturing, stability testing and scale-up activities, bulk drug product manufacturing and stability

testing, (c) quality assurance and quality control activities including validation testing, qualification and audit of clinical and commercial manufacturing facilities, and (d) in the case of either a clinical or commercial supply of such product or supply of such product for any non-clinical study, the manufacturing, processing, formulating, packaging, labeling, holding, quality control testing and release of such product.

1.77 "**Marketing Authorization Application**" or "**MAA**" means an application for Regulatory Approval in a country, territory or possession.

1.78 "**Marks**" has the meaning set forth in Section 7.6.

1.79 "**Material Decrease**" means, with respect to this Agreement and the Research Plan, any decrease in the resources, costs or expenditures of a Party of greater than […***…]

1.80 "**Material Impact**" means, with respect to a Licensed Product in a country, (i) a decrease in the Net Sales of such Licensed Product by more than […***…] compared to the average of the […***…] calendar quarters immediately preceding the first calendar quarter in which a product falling under Section 1.30(a) is first sold in such country under […***…], or (ii) that, in the aggregate, products falling under Section 1.30(a) in such country achieved at least a […***…] share of the aggregate sales in a calendar quarter of the products sold under […***…] for the treatment of […***…] in such country.

1.81 "**Material Increase**" means, with respect to this Agreement and the Research Plan, any increase in the resources, costs or expenditures of a Party of greater than […***…]

1.82 "**NDA**" means a New Drug Application, as defined in the FD&C Act and applicable regulations promulgated thereunder by the FDA.

1.83 "**Net Sales**" means, with respect to any Licensed Product, monies received by or on behalf of Alexion or its Affiliates or Sublicensees, as the case may be, for sales of such Licensed Product to independent Third Parties less the following amounts, to the extent allocated to such Licensed Product:

(a) import taxes, export taxes, excises, sales taxes, value added taxes, consumption taxes, duties or other taxes incurred with respect to such sales (excluding income or franchise taxes of any kind);

(b) payments made for separately itemized insurance and transportation costs incurred in shipping Licensed Product;

(c) payments made for returns, chargebacks, credits, allowances, or trade, quantity and cash discounts; and

(d) payments made for governmental or commercial rebates, wholesaler fees, administrative fees to managed care, group purchasing and other similar institutions, chargebacks and retroactive price adjustments and any other similar allowances which effectively reduce the selling price.

Nothing herein will prevent Alexion or any of its Affiliates or Sublicensees from selling, distributing or invoicing any Licensed Product at a discounted price for shipments to Third Parties in connection with clinical studies, compassionate or named patient sales, or an indigent program or similar bona fide arrangements in which such party agrees to forego a normal profit margin for good faith

business reasons. To the extent that Alexion or its Affiliates or Sublicensees receives any consideration other than monies for the sale of Licensed Products, Net Sales shall include the fair market value of such consideration. For the avoidance of doubt, the supply of Licensed Products free of charge shall not be included in Net Sales. Except for such discounting, no deduction will be made for any item of cost incurred in Developing or Commercializing any Licensed Product except as permitted pursuant to clauses (a) through (e) above.

The Sale or transfer of a Licensed Product between Alexion and any of its Affiliates or Sublicensees will not result in any Net Sales, and Net Sales instead will be based on subsequent sales or distribution to a party other than Alexion, its Affiliates or its Sublicensees, unless such Licensed Product is consumed by Alexion, its Affiliates or its Sublicensees.

If a Licensed Product is sold as part of a Combination Product, the Net Sales of the Licensed Product shall be calculated for each applicable calendar quarter by multiplying the Net Sales (as determined without reference to this paragraph) of the Combination Product by the fraction, A/(A+B), where A is the average gross selling price in the applicable country of the Licensed Product(s) when sold separately in finished form, and B is the average gross selling price in the applicable country of the other product(s) included in the Combination Product when sold separately in finished form, in each case for the most recent period in which sales of both occurred.

If the Licensed Product(s) is/are sold as part of a Combination Product and is/are sold separately in finished form, but the other product(s) included in the Combination Product are not sold separately in finished form, the Net Sales of the Licensed Product shall be determined by multiplying the Net Sales of the Combination Product by the fraction A/C where: A is the average gross selling price in the applicable country of the Licensed Product(s) contained in such Combination Product when sold separately, and C is the average gross selling price in the applicable country of the Combination Product. If the Licensed Product(s) is/are sold as part of a Combination Product and is/are not sold separately in finished form, but the other product(s) included in the Combination Product are sold separately in finished form, the Net Sales of the Licensed Product shall be determined by multiplying the Net Sales of the Combination Product by the fraction C-B/C where: B is the average sale price of the other product(s) included in such Combination Product when sold separately, and C is the average sale price of the Combination Product.

If Net Sales of the Licensed Product(s) when included in a Combination Product cannot be determined using the methods above, the average gross selling price(s) in the above described equation will be replaced with Alexion's proposed good faith estimate of the fair market value of the products for which no such sales exist. At least […***…] days prior to the First Commercial Sale of the Combination Product, Alexion shall propose such good faith estimate to Blueprint, and Blueprint shall in good faith consider such proposal, and the Parties shall seek to reach agreement on such allocation. If the Parties are unable to reach such agreement within […***…] days after Alexion provides such proposal, the issue shall be resolved in accordance with Section 12.1.

The forgoing analysis shall be conducted on a country-by-country basis as reasonably required to determine relative fair market values of the relevant Combination Product components.

1.84 "**Other IP**" has the meaning set forth in Section 7.1(c)(i).

1.85 "**Party**" or "**Parties**" has the meaning set forth in the preamble to this Agreement.

1.86 "**Patent**" means (a) any national, regional or international patent or patent application, including any provisional patent application, (b) any patent application filed either from such a patent, patent application or provisional application or from an application claiming priority from any of these, including any divisional, continuation, continuation-in-part, provisional, converted provisional, and continued prosecution application, (c) any patent that has issued or in the future issues from any of the foregoing patent applications ((a) and (b)), including any utility model, petty patent, design patent and certificate of invention, (d) any extension or restoration by existing or future extension or restoration mechanisms, including any revalidation, reissue, re-examination and extension (including any supplementary protection certificate and the like) of any of the foregoing patents or patent applications ((a), (b) and (c)), and (e) any similar rights, including so-called pipeline protection, or any importation, revalidation, confirmation or introduction patent or registration patent or patent of additions to any such foregoing patent application or patent.

1.87 "**Patent Challenge**" has the meaning set forth in Section 11.4.

1.88 "**Patent Costs**" means the out-of-pocket costs and expenses paid to outside legal counsel and other Third Parties, and filing and maintenance expenses, incurred in the preparation, filing, prosecution and maintenance of Patents, as well as re-examinations, reissues and the like with respect to any Patent, together with the conduct of interferences, the defense of oppositions and other similar proceedings with respect to any Patent.

1.89 "**Person**" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture or other similar entity or organization, including a government or political subdivision, department or agency of a government.

1.90 "**Phase I Clinical Trial**" means a human clinical trial of a product, the principal purpose of which is a determination of initial tolerance or safety of such product in healthy volunteers and/or the target patient population, as described in 21 C.F.R. 312.21(a) (as amended or any replacement thereof), or a similar clinical trial prescribed by the Regulatory Authority in a country other than the United States.

1.91 "**Phase II Clinical Trial**" means a human clinical trial of a product, the principal purpose of which is a determination of safety and efficacy in the target patient population, as described in 21 C.F.R. 312.21(b) (as amended or any replacement thereof), or a similar clinical trial prescribed by the Regulatory Authority in a country other than the United States.

1.92 "**Phase III Clinical Trial**" means a human clinical trial of a product, the design of which is acknowledged by the FDA to be sufficient for such clinical trial to satisfy the requirements of 21 C.F.R. 312.21(c) (as amended or any replacement thereof), or a similar human clinical trial prescribed by the Regulatory Authority in a country other than the United States, the design of which is acknowledged by such Regulatory Authority to be sufficient for such clinical trial to satisfy the requirements of a pivotal efficacy and safety clinical trial.

1.93 "**Phase IV Clinical Trial**" means any study of a product following the first regulatory approval for the sale of such product whether or not required by a Governmental Authority. Phase IV Trials may include epidemiological studies, modeling and pharmacoeconomic studies, post-marketing surveillance studies and clinical or other research studies.

1.94 "**Pre-Development Candidate**" means a Compound from a Lead Series that is selected by the JSC as satisfying the applicable criteria for a pre-development candidate set forth in the Research Plan.

1.95 "**Preclinical Reversion Payment**" has the meaning set forth in Section 11.5(a)(v).

1.96 "**Project Leaders**" has the meaning set forth in Section 3.1.

[…***…] "**Protected Compound**" means any molecule other than a Compound that […***…] and (ii) is owned or controlled by Blueprint or included within the Blueprint compound library as of the Effective Date or at any time during the period commencing on the Effective Date and ending on the date that is the shorter of (x) […***…] years following the end of the Research Term or (y) […***…]

1.98 "**Registration Clinical Study**" means a Phase II Clinical Trial or a Phase III Clinical Trial or other human clinical trial that a Regulatory Authority has accepted as sufficient to file a Regulatory Approval on a Compound or Licensed Product.

1.99 "**Regulatory Approval**" means all approvals necessary for the manufacture, marketing, importation and sale of a product for one or more indications in a country or regulatory jurisdiction, which may include satisfaction of all applicable regulatory and notification requirements, including any pricing and reimbursement approvals. Regulatory Approvals include approvals by Regulatory Authorities of INDs, MAAs, or NDAs.

1.100 "**Regulatory Authority**" means, in a particular country or regulatory jurisdiction, any applicable Governmental Authority involved in granting Regulatory Approval or, to the extent required in such country or regulatory jurisdiction, pricing or reimbursement approval of a product in such country or regulatory jurisdiction, including (a) the FDA, (b) the EMA, and (c) the European Commission, or its successor.

1.101 "**Regulatory Event**" means any of the following: changes in clinical or regulatory strategy justified by requirements of regulatory feedback (whether directed to Alexion, Blueprint or a Third Party) from any Regulatory Authority, failed or inconclusive clinical studies, discovery of unanticipated toxicity or any significant adverse event or condition relating to the safety or efficacy of a Product, significant adverse changes in the targeted market conditions which affect the market potential of a Licensed Product, or the need for additional clinical studies to achieve appropriate labelling of a Licensed Product.

1.102 "**Regulatory Exclusivity**" means any exclusive marketing rights or data exclusivity rights conferred by any Regulatory Authority with respect to a Licensed Product other than Patents, including, without limitation, rights conferred in the U.S. under the Hatch-Waxman Act or the FDA Modernization Act of 1997 (including pediatric exclusivity), orphan drug exclusivity, or rights similar thereto outside the U.S.

1.103 "**Regulatory Materials**" means regulatory applications, submissions, notifications, registrations, or other filings made to or with a Regulatory Authority that are necessary or reasonably desirable in order to Develop, manufacture, market, sell or otherwise Commercialize a Licensed Product in a particular country or regulatory jurisdiction. Regulatory Materials include INDs, MAAs and NDAs (as applications, but not the approvals with respect thereto).

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1.104 "**Relevant Factors**" means, with respect to a Compound or Licensed Product, (i) safety and efficacy, cost to Develop, the competitiveness of alternative compounds and products and the nature and extent of market exclusivity (including, without limitation, Patent coverage and regulatory exclusivity), expected profitability, including, without limitation, the amounts of marketing and promotional expenditures with respect to the Licensed Products and generic products, and (ii) in the event that Blueprint materially breaches its obligations under this Agreement, the resulting adverse effect on Alexion's ability to perform its obligations hereunder.

1.105 "**Research**" means, together with all correlative meanings, activities related to the synthesis, discovery, identification, screening, optimization or […***…]. Research shall expressly exclude (a) Development, (b) Commercialization and (c) Manufacture.

1.106 "**Research Plan**" has the meaning set forth in Section 2.1(b).

1.107 "**Research Program**" means the program of Research and preclinical Development of Compounds that the Parties engage in under this Agreement pursuant to the Research Plan.

1.108 "**Research Term**" means the shorter of (i) […***…] years from the Effective Date, (ii) the completion of all activities as set forth in the Research Plan, subject to extension by mutual agreement of the Parties, or (iii) the date on which the Research Term is terminated as provided under this Agreement.

1.109 "**Reversion Product**" means any Licensed Product that is or has been the subject of Development or Commercialization under this Agreement and that reverts back or is returned to Blueprint following a termination of this Agreement as provided under the terms of Section 11.5(a)(v).

1.110 "**Royalty Term**" has the meaning set forth in Section 6.4(b).

1.111 "**SEC**" means the U.S. Securities and Exchange Commission.

1.112 "**Sublicensee**" means any Third Party granted a sublicense by Alexion under the rights licensed to Alexion pursuant to Article 5 hereof.

1.113 "**Target**" means […***…]

1.114 "**Technology Transfer Plan**" has the meaning set forth in Section 2.3.

1.115 "**Term**" has the meaning set forth in Section 11.1.

1.116 "**Termination Notice Period**" has the meaning set forth in Section 11.5(c)(i).

1.117 "**Territory**" means […***…].

1.118 "**Third Party**" means any entity other than Blueprint or Alexion or an Affiliate of either of them.

[…***…]

1.120 "**U.S.**" means the United States of America (including all possessions and territories thereof).

1.121 "**Valid Claim**" means, with respect to a particular country, a claim of an issued and unexpired patent or of a pending patent application in such country Controlled by Blueprint or any of its Affiliates (including any patent or patent application jointly owned with Alexion or any others) that is exclusively licensed to Alexion under this Agreement and that has not been: (a) disclaimed, (b) dedicated to the public, (c) abandoned, or (d) declared invalid, unenforceable, or revoked by a court or government agency of competent jurisdiction, from which neither declaration nor appeal can be further taken. In the case where a Valid Claim Covering […***…] is contained in a patent […***…], royalties pursuant to Section 6.4 will be payable […***…] In the case where a Valid Claim Covering […***…] is contained in a patent application […***…] royalties will be payable […***…]. In the case that such patent issues […***…]. For clarity, the date of publication with respect to a particular country for the purpose of this definition will be the date of first publication in a patent application filed in that country or in a regional or international patent application designating that country.

ARTICLE 2

RESEARCH PROGRAM

2.1 Research Program.

(a) Goals. The objective of the Research Program is to Research and pre-clinically Develop Compounds according to the Research Plan, with the aim of delivering to Alexion one IND-Ready lead Development Candidate together with one back-up Development Candidate pursuant to the Research Plan in accordance with the agreed timeframe and budget set forth therein.

(b) Research Plan. During the Research Term, the Research and preclinical Development activities of the Parties will follow a research plan which will include: (i) the roles and responsibilities of the Parties, (ii) the number of Blueprint FTEs, (iii) a budget setting out by quarter funding for Blueprint's internal FTE requirements at the FTE Rate consistent with the requirements of this Agreement, and Blueprint's internal and external costs, (iv) a detailed timeline showing all activities, and (v) […***…] (the "**Research Plan**"). An initial version of the Research Plan is attached hereto as Exhibit B. The Research Plan may be periodically amended with written approval from the JSC during the Research Term. Project Leaders, on behalf of the Joint Project Team, may propose amendments to the Research Plan from time to time, and the JSC may amend the Research Plan as it deems appropriate, including amendments to the number of FTEs specified in the Research Plan. At the first JSC meeting, […***…] and a detailed Gantt chart of activities and related budget breakdown will be submitted to the JSC to be added to the Research Plan.

(c) Obligations Under the Research Plan.

(i) Generally. Each Party will use Diligent Efforts to perform (itself or through its Affiliates or by permitted subcontracting) its respective obligations under the Research Plan, and will cooperate with and provide reasonable support to the other Party in such other Party's performance of its responsibilities under the Research Plan. The Parties acknowledge and agree, however, that no outcome or success is or can be assured and that failure to achieve desired results will not in and of itself constitute a breach or default of any obligation in this Agreement.

(ii) Blueprint.

(A) To the extent set forth in the Research Plan, Blueprint will be responsible for (1) the identification, design, manufacture, characterization and proposal of the Lead Series, (2) the identification, design, manufacture, optimization, characterization and proposal of the Pre-Development Candidates, (3) the identification, design, manufacture, optimization, characterization and proposal of the lead Development Candidate and the back-up Development Candidate, and (4) after designation of the lead Development Candidate, […***…] therefor. Blueprint will use Diligent Efforts to perform the activities assigned to it as set forth in the Research Plan, such activities to be supervised in all material respects by the Key Personnel. During the Research Term and for a period of […***…] thereafter, Blueprint will promptly notify Alexion following the departure from Blueprint of any Key Personnel, and will replace any such former Key Personnel with an individual holding a similar title as such departed Key Personnel.

(B) During the Research Term, Blueprint will maintain and share freely with Alexion a list of all Compounds, and all associated data for such Compounds.

(C) Subject to the terms of this Agreement, Blueprint will (by itself or by permitted subcontracting) perform its obligations under the Research Plan to the highest commercially reasonable scientific standards, and in accordance with Applicable Law, and will cooperate with Alexion in the performance of Alexion's responsibilities under the Research Plan.

(iii) Alexion.

(A) Alexion will use Diligent Efforts to perform the activities assigned to it as set forth in the Research Plan.

(B) From time-to-time, Alexion may request that Blueprint provide selected synthesized Compounds to Alexion and Alexion may verify data or conduct Research activities or test Compounds in disease models under its license as set forth in Section 5.1. Alexion will be responsible for the costs associated with the provision of such selected synthesized Compounds, to the extent that such requests result in additional costs incurred by Blueprint beyond the amounts set forth in the Research Plan budget.

2.2 Research Plan FTE Support and Expense Payments.

(a) Research Plan FTE Support.

(i) During the Research Term, as support for work performed by or on behalf of Blueprint in accordance with this Agreement and the Research Plan, Alexion will pay Blueprint for FTE hours actually worked at the applicable FTE Rate; provided that the number of FTEs and the activities undertaken by the FTEs have been agreed upon by the Parties through the JSC and the amount is within the Research Plan budget.

(ii) Within […***…] days after the end of each calendar quarter, Blueprint shall send a reasonably detailed invoice to Alexion, which shall include a description of the activities conducted by each timekeeper under the Research Plan, the aggregate monthly/weekly/daily/hourly (in one-half hour intervals) hours of each time keeper and the FTE total charge per timekeeper. In addition to each quarterly report, Blueprint will provide to Alexion at the end of each month an estimate of Blueprint's FTEs and external costs for such month. Alexion's obligation to fund FTEs shall not include funding for time spent correcting errors caused by the personnel of Blueprint or its Affiliates or

subcontractors deviating from performing the activities assigned to Blueprint as they are set forth the Research Plan. No later than […***…] days after receipt of an invoice from Blueprint, Alexion will make payment for the FTEs for such calendar quarter at the FTE Rate.

(b) Payment for External Expenses. For each calendar quarter during the Research Term, Alexion will reimburse Blueprint for reasonable and documented, direct external expenses incurred by Blueprint in accordance with the Research Plan without mark-up in categories and amounts agreed to by the Parties through the JSC; provided that Blueprint will be permitted to seek reimbursement from Alexion for external expenses incurred for chemistry support at an […***…], to the extent that such external expenses are detailed in the Research Plan budget. Blueprint will invoice Alexion for such expenses quarterly in arrears, and Alexion will pay Blueprint within […***…] days of receiving such invoice; provided that Blueprint shall be solely liable for managing the performance of its subcontractors.

(c) In the event that Blueprint's actual quarterly costs under the Research Plan exceed the Research Plan budget by more than […***…], such additional costs will require the approval of the JSC prior to reimbursement.

2.3 Technology Transfer. Within […***…] days of the completion of the final reports from the GLP toxicology studies for the lead Development Candidate, to the extent not transferred earlier as may be requested by Alexion from time to time, Blueprint will transfer copies of all data, know-how and other information and all materials relating to the lead Development Candidate and back-up Development Candidate, and all Information relating to other Compounds (including a substantial majority of the existing materials), any assays, biomarkers and manufacturing know-how, to Alexion at Alexion's expense. These activities will be set out in a mutually agreed technology transfer plan (the "**Technology Transfer Plan**"), to be included as a section within the Research Plan following the […***…] anniversary of the Effective Date, and will include an agreed Technology Transfer Plan budget and timeline. The Technology Transfer Plan will also provide for additional technology transfer activities relating to CMC activities and the back-up Development Candidate.

2.4 Records and Reports.

(a) Records. Each Party will maintain, or cause to be maintained, records of its activities under the Research Program in sufficient detail and in good scientific manner appropriate for scientific, Patent and regulatory purposes, which will properly reflect all work included in the Research Program for a period of […***…] years after the conclusion of the Research Plan. Each Party will have the right to request and receive a copy of any such records, except to the extent that the other Party reasonably determines that such records contain Confidential Information that is not licensed to such Party hereunder, or to which such Party does not otherwise have a right hereunder, in which case the providing Party may delete such Confidential Information (other than, in the case of Alexion, the Alexion IP, and other than, in the case of Blueprint, the Blueprint IP) from the records provided to the other Party.

(b) Reports.

(i) Blueprint. During the Research Term, Blueprint, in consultation with the Joint Project Team, will present to the JSC:

(A) a quarterly report detailing activities completed in the last quarter, a detailed summary of new data generated, new inventions, an explanation of the […***…], incurred and projected future costs against budget, whether new Protected Compounds have been identified by Blueprint, planned activities for the subsequent quarter (including

[…***…]), progress against the Research Plan timelines and any other aspects that the JSC may determine;

(B) at each key milestone […***…], a written report detailing all relevant data and the […***…], a plan and recommendation for optimization or characterization;

(C) upon nomination of each of the Pre-Development Candidates and lead and back-up Development Candidates, a summary of the Research activities performed by Blueprint prior to such nomination outside of the Research Plan with respect to each such Pre-

Development Candidates and Development Candidates, and a summary of the resulting data (Alexion will have reasonable access, upon request, to raw data related to such Pre-Development Candidates and Development Candidates derived from such activities); and

(D) a final report, upon a determination that the first Licensed Product is IND-Ready, listing the key studies completed, reports to be transferred and a summary of the data generated.

(ii) Alexion. During the Research Term and until designation of the lead Development Candidate, Alexion will present to the JSC […***…] a written report detailing all work conducted by Alexion under the Research Plan in a manner like that required of Blueprint under Section 2.4(b)(i).

2.5 Subcontracts.

(a) Blueprint may perform any of its obligations under the Research Plan through one or more subcontractors or consultants. Any subcontractor or consultant identified in the Research Plan will be deemed accepted by Alexion. Blueprint may engage other subcontractors or consultants only with the prior written consent of the JSC, such consent not to be unreasonably withheld. On a quarterly basis, Blueprint will update the JSC on any new subcontractors or consultants engaged, following receipt of such consent, since the last update, and they will be deemed added to the Research Plan. Blueprint will engage any subcontractor or consultant in accordance with the following: (i) Blueprint will remain responsible for the work allocated to such subcontractors and consultants to the same extent it would if it had done such work itself, (ii) the subcontractor or consultant will undertake in writing obligations of confidentiality and non-use regarding Confidential Information that are at least as protective as those undertaken by the Parties with respect to Confidential Information pursuant to Article 10 hereof, and (iii) the subcontractor or consultant will undertake in writing to assign or exclusively license back (with the right to sublicense) all intellectual property with respect to a Compound developed in the course of performing any such work under the Research Plan to Blueprint such that Blueprint will Control such intellectual property. For clarity, Blueprint will have no obligation to use subcontractors to perform any of its activities under the Research Plan unless Alexion pays for all fees and costs of such subcontractors through payments under the Research Plan budget or as otherwise agreed to by Alexion.

(b) Alexion may subcontract any of its activities to be performed under the Research Plan to a Third Party without the prior consent of Blueprint, but by first providing to Blueprint written notice of the identity of the Third Party subcontractor to be engaged and an opportunity to comment on such engagement, such comments to be considered by Alexion in good faith.

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ARTICLE 3

GOVERNANCE

3.1 Project Leaders. The Research Program will have a project leader from each Party (or from an Affiliate of such Party) (each, a "**Project Leader**," and together the "**Project Leaders**") to be the primary point of contact on a day-to-day basis for the Parties in connection with the Research Plan, including being the primary point of resolution for any dispute between the Parties relating to the Research Plan with any such dispute to be submitted to the JSC if not resolved by the Project Leaders. The Project Leaders will be members of the Joint Project Team. The Parties' initial Project Leaders are set forth on Exhibit C.

3.2 Alliance Manager. Each Party will appoint an individual (from the Party or from an Affiliate of such Party) to act as the first point of contact between the Parties with regard to questions relating to this Agreement or the overall relationship between the Parties (the "**Alliance Managers**") other than the coordination of day-to-day Research activities which will be coordinated by the Project Leaders. The Parties' initial Alliance Managers are set forth on Exhibit C. The Alliance Managers will:

(a) use good faith efforts to attend all meetings of the JSC; and

(b) facilitate the resolution of any issue on which the JSC is unable to reach consensus, in accordance with Section 3.5(b).

3.3 Joint Steering Committee.

(a) Formation; Composition. Within […***…] days of the Effective Date, the Parties will establish a joint steering committee (the "**Joint Steering Committee**" or "**JSC**") comprised of […***…] from each Party (or appointed representatives of an Affiliate of such Party) with sufficient seniority within the applicable Party to make decisions arising within the scope of the JSC's responsibilities. The Parties' initial representatives to the JSC are set forth on Exhibit C. The JSC may change its size from time to time by mutual consent of its members, provided that the JSC will consist at all times of an equal number of representatives of each of Blueprint and Alexion. Each Party may replace its JSC representatives at any time upon written notice to the other Party. The JSC may invite non-members to participate in the discussions and meetings of the JSC, provided that such participants will have no voting authority at the JSC. Each meeting of the JSC will be chaired by a chairperson selected alternately by Blueprint or Alexion. The initial chairperson will be selected by Alexion. The role of the chairperson will be to convene and preside at meetings of the JSC. The chairperson will have no additional powers or rights beyond those held by the other JSC representatives.

(b) Specific Responsibilities. The JSC will:

(i) oversee the performance of the Research Plan;

(ii) make key decisions during the progress of the Research Plan including […***…];

(iii) during the Research Term, review the progress of activities under the Research Plan and review and approve any updates or amendments thereto, including amendments to the budget, and the timelines for activities under the Research Plan;

(iv) on or about the time point of each key milestone […***…], review the number of FTEs then specified in the Research Plan based on the results of such key milestone and, if appropriate, make adjustments to the number of FTEs and amendments to the Research Plan, provided that any such adjustment or amendment will go into effect […***…] after it is decided by the JSC (unless Blueprint, in its sole discretion, is able to implement it earlier);

(v) resolve any disagreement between the Parties relating to the Research Plan; and

(vi) perform such other functions as appropriate, and direct the JPT to perform such other functions as appropriate, to further the purposes of this Agreement, in each case as agreed in writing by the Parties.

(c) Meetings. During the Research Term, the JSC will meet at least quarterly. Following the expiration of the Research Term, the Parties may agree to meet to discuss items previously addressed by the JSC. No later than […***…] Business Days prior to any meeting of the JSC, the chairperson of the JSC will prepare and circulate an agenda for such meeting; provided, however, that either Party may propose additional topics to be included on such agenda, either prior to or in the course of such meeting. Either Party may also call a special meeting of the JSC (by videoconference, teleconference or in person) by providing at least […***…] Business Days prior written notice to the other Party if such Party reasonably believes that a significant matter must be addressed prior to the next scheduled meeting, in which event such Party will work with the chairperson of the JSC to provide the members of the JSC no later than […***…] Business Days prior to the special meeting with an agenda for the meeting and materials reasonably adequate to enable an informed decision on the matters to be considered. The JSC may meet in person, by videoconference or by teleconference. Notwithstanding the foregoing, at least […***…] meetings per calendar year will be in person unless the Parties mutually agree in writing to waive such requirement. In-person JSC meetings will be held at locations alternately selected by Blueprint and by Alexion. Each Party will bear the expense of its respective JSC members' participation in JSC meetings. Meetings of the JSC will be effective only if at least two (2) JSC members from each Party (which members do not include such Party's Alliance Manager) is present or participating in such meeting. The chairperson will be responsible for preparing reasonably detailed written minutes of all JSC meetings that reflect material decisions made and action items identified at such meetings. The chairperson will send draft meeting minutes to each member of the JSC for review and approval within […***…] Business Days after each JSC meeting. Such minutes will be deemed approved unless one or more members of the JSC objects to the accuracy of such minutes within […***…] Business Days of receipt. Minutes will be officially endorsed by the JSC at the next JSC meeting, and will be signed by the chairperson.

(d) Decision-Making. The representatives from each Party on the JSC will have, collectively, one (1) vote on behalf of that Party, and all decision making will be by consensus. Disputes at the JSC will be handled in accordance with Section 3.5.

3.4 Joint Project Team.

(a) Formation; Composition. Within […***…] days after the Effective Date, the Parties will establish a joint project team (the "**Joint Project Team**" or "**JPT**") comprised of at least […***…] and no more than […***…] representatives from each Party (or representatives of an Affiliate of such Party), including the Project Leaders. The Parties' initial representatives to the JPT are set forth on Exhibit C. Each Party may replace its JPT representatives at any time upon written notice to the other

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Party. The JPT will be chaired by the Blueprint Project Leader. The role of the chairperson will be solely to convene and preside at meetings of the JPT and to ensure the preparation of minutes, and the chairperson will have no authority, power or rights.

(b) Specific Responsibilities. The JPT will:

(i) review, coordinate and integrate the activities of the Parties under the Research Plan,

(ii) review Research Plan amendments and other related topics prior to submission to the JSC for its review and approval;

(iii) facilitate the sharing of data between the Parties;

(iv) provide Alexion the opportunity to contribute towards the […***…] (as described in the Research Plan), including the opportunity to nominate structures for Blueprint's good faith consideration whether to include in the Research Plan and to review Compound data generated by Blueprint;

(v) invite such functional experts to participate in meetings of the JPT as it deems necessary and appropriate to the issues to be discussed at such meetings;

(vi) establish such additional subteams as it deems necessary to achieve the objectives and intent of the Research Program; and

(vii) perform such other functions as appropriate to further the purposes of this Agreement, as directed by the JSC in accordance with Section 3.3(b)(vi).

(c) Meetings. The JPT will meet every other month in person and every […***…] weeks by teleconference, unless the Parties mutually agree in writing to a different frequency. No later than […***…] Business Days prior to any meeting of the JPT, the chairperson of the JPT will prepare and circulate an agenda for such meeting; provided, however, that either Party will be free to propose additional topics to be included on such agenda, either prior to or in the course of such meeting. At least […***…] representatives of each Party will be present or participating in meetings of the JPT. Each Party will bear the expense of its respective JPT members' participation in JPT meetings. The chairperson will be responsible for preparing reasonably detailed written minutes of JPT meetings that summarize the discussions had and action items identified at such meetings. The JPT chairperson will send meeting minutes to each member of the JPT for review and approval within […***…] Business Days after each JPT meeting. Minutes will be deemed approved unless one or more members of the JPT objects to the accuracy of such minutes within […***…] Business Days of receipt. Minutes will be officially endorsed by the JPT at the next JPT meeting.

(d) Decision-Making. The JPT will have day-to-day decision-making authority but will have no voting authority. The JPT's role will be that of a coordinator, integrator and facilitator as described in Section 3.4(b). All decisions within the JPT will be made by consensus; provided however that, if either Party has an insufficient number of its representatives present at any meeting of the JPT, the day-to-day activities proposed at such meeting will be deemed accepted by such Party in absentia. In the event that the JPT is unable to decide any issue for which it is responsible, the matter will be referred to the JSC for resolution.

3.5 Resolution of JSC Disputes.

(a) Within the JSC. All decisions within the JSC will be made by consensus. If the JSC is unable to reach consensus on any issue for which it is responsible, within […***…] days after a Party affirmatively states that a decision needs to be made, either Party may elect to submit such issue first to the Parties' Alliance Managers and, if still unresolved, to the Parties' Executive Officers, in accordance with Section 3.5(b).

(b) Referral to Alliance Managers; Executive Officers. If a Party makes an election under Section 3.5(a) to refer a matter to the Alliance Managers, the JSC will submit in writing the respective positions of the Parties to their respective Alliance Managers. Such Alliance Managers will use good faith efforts, in compliance with Section 3.6, to resolve promptly such matter, which good faith efforts will include at least one in-person meeting between such Alliance Managers within […***…] days after the JSC's submission of such matter to them. If the Alliance Managers are unable to reach consensus on any such matter within […***…] days after its submission to them, such matter will be escalate to the Parties' Executive Officers. Each Party's Alliance Manager will submit in writing the position of the Party it represents to the Executive Office of such Party. The Executive Officers will use good faith efforts, in compliance with Section 3.6, to resolve promptly such matter, which good faith efforts will include at least one in-person meeting between such Executive Officers within […***…] days after the Alliance Managers' submission of such matter to them. If the Executive Officers are unable to reach consensus on any such matter within […***…] days after its submission to them, (i) if the matter relates to the […***…], the matter will be decided by Blueprint, provided that no decision by Blueprint on such matters may result in a Material Increase or Material Decrease in a Party's obligations under this Agreement or otherwise conflict with this Agreement; and (ii) in the case of all other matters, the matter will be decided by Alexion (including matters regarding […***…], provided that no decision by Alexion on such matters (A) may result in a Material Increase in Blueprint's obligations under this Agreement (including the number of FTEs that Blueprint is providing), (B) may result in a Material Decrease in Blueprint's obligations under this Agreement (including the number of FTEs that Blueprint is providing), and associated budget, within the first […***…] months following the Effective Date, provided that, after such […***…] months period, any decrease in such Blueprint obligations will be permitted so long as it is reasonably supported by data or other results generated under the Research Plan showing an underperformance of the Research Program, (C) require Blueprint to perform any activities or other work under the Research Plan or this Agreement that would cause Blueprint to incur costs or expenses in excess of the amount of the reimbursements for FTEs and for external costs and expenses (including associated with subcontractors) Blueprint received from Alexion or (D) may otherwise conflict with this Agreement, and, further provided that, any such permitted final decision by Alexion will go into effect […***…] months after it is made and will be reflected in an amendment to the Research Plan made through the JSC.

(c) Good Faith. In conducting themselves on the JSC and JPT, and in exercising their rights under this Section 3.5, all representatives of both Parties will consider diligently, reasonably and in good faith all input received from the other Party, and will use reasonable efforts to reach consensus on all matters before them. In exercising any decision-making authority granted to it under this Article 3, each Party will act based on its good faith judgment taking into consideration the best interests of the Licensed Products and the Research Program.

3.6 General Authority. It is expressly understood and agreed that the control of decision-making authority by Blueprint or Alexion, as applicable, pursuant to Section 3.5(b), so as to resolve a

disagreement or deadlock for any matter will not authorize either Party to perform any function or exercise any decision-making right not delegated to such Party, and that neither Blueprint nor Alexion will have any right to unilaterally modify or amend, or waive its own compliance with, the terms of this Agreement.

ARTICLE 4

CLINICAL DEVELOPMENT AND COMMERCIALIZATION

4.1 Clinical Development. Except as otherwise provided in Section 4.2 or relating to activities under the Research Plan, and, with respect to the Manufacture of clinical supply, Section 4.2(c), Alexion will have sole responsibility for and sole decision-making over the Development of the Licensed Products in the Field, and associated costs.

4.2 Regulatory Responsibilities. Except as otherwise provided in this Section 4.2 and the Research Plan, Alexion will have sole responsibility for and sole decision-making over all regulatory activities and associated costs for the Licensed Products in the Territory, both before and after obtaining Regulatory Approval. For clarity, Blueprint will not be responsible for performing any regulatory work except as otherwise described in Section 4.2 and the Research Plan.

(a) Regulatory Filings; Ownership. Alexion will lead and have sole control over preparing and submitting all regulatory filings related to the Licensed Products, including all applications for Regulatory Approval. Alexion will own any and all applications for Regulatory Approvals, the Regulatory Approvals, and other regulatory filings related to the Licensed Product which will be held in the name of Alexion or its designees. For clarity, the decision whether to file an IND for any particular Compound will be at Alexion's sole discretion, subject to Alexion's diligence obligations hereunder with respect to Licensed Products generally.

(b) Interactions with Regulatory Authorities. Alexion will have the sole right to conduct all communications with Regulatory Authorities, including all meetings, conferences and discussions (including advisory committee meetings), with regard to Licensed Products in the Territory.

(c) Blueprint Regulatory Activities.

(i) The Research Plan will include activities for which Blueprint is responsible, as may be reasonably requested by Alexion to facilitate Alexion's submission of the IND filing(s), and the reasonable cost of such activities will be included in the Research Plan budget.

(ii) Blueprint will cooperate with any reasonable request from Alexion with respect to obtaining any Regulatory Approval for a Licensed Product in the Territory including (A) making its employees, consultants and other staff available to assist Alexion upon reasonable notice, (B) responding to questions raised by Alexion, and (C) making available to Alexion, in the form reasonably requested by Alexion, any and all information Controlled by Blueprint and related to the Compound or Licensed Product that is necessary or desirable to prepare, file, obtain and maintain any Regulatory Approval. Blueprint will provide any such assistance to Alexion free of charge (other than those activities expressly set out in the Research Plan) for up to […***…] hours, and, after which, Alexion will be responsible for the costs of any such assistance

(including FTEs), provided that, in all cases, such assistance is not unduly burdensome on Blueprint's normal business operations.

4.3 Manufacturing. In accordance with the express activities, timelines and budget set forth in the Research Plan, Blueprint will assist Alexion, at Alexion's cost, in having Manufactured at a quality level to be mutually agreed upon an amount of clinical supply of Licensed Product sufficient to complete the first clinical trial. Such Manufacturing activities under the Research Plan will be performed by a Third Party contract manufacturing organization (CMO), and the Parties together will decide whether Alexion or Blueprint will engage the CMO to perform such Manufacturing activities. The Parties hereby agree that, for such Manufacturing activities, (a) Blueprint will use Diligent Efforts to supervise the CMO's performance of such Manufacturing activities, (b) Blueprint's responsibilities to Alexion under this Section 4.3 will be no more broad or rigorous than the responsibilities accepted by the CMO and any non-performance by the CMO of any such responsibilities (or any of its agreements with Blueprint regarding Manufacturing) will not be deemed a breach by Blueprint under this Agreement, and (c) Alexion will be responsible for the costs of the CMO. Further, Blueprint will cooperate with Alexion to perform the technology transfer activities set forth in Section 2.3. Thereafter, Alexion will have sole responsibility for and sole decision-making authority over all Manufacturing activities and associated costs for the Development and Commercialization of the Licensed Products in the Field (except to the extent expressly set forth in the Research Plan).

4.4 Commercialization. Alexion will have sole responsibility for and sole decision-making over all Commercialization activities of the Licensed Products in the Field, and will be solely responsible for the associated costs of such Commercialization activities.

4.5 Alexion Diligence. Alexion will use Commercially Reasonable Efforts to Develop and Commercialize […***…] in the Field in all of the Major Markets. For the avoidance of doubt, the commitment to use Commercially Reasonable Efforts will not preclude the suspension or discontinuation by Alexion of the Development or Commercialization of any Compound or Licensed Product, if appropriate, based on any of the Relevant Factors or on the basis of a Regulatory Event.

4.6 Annual Update Meetings. Commencing upon the completion of the Research Plan and continuing until the end of registration clinical studies, the Parties will meet once per calendar year in person approximately […***…] months following the annual report sent by Alexion pursuant to Section 4.7, during which time Alexion will provide Blueprint with a reasonably detailed update on the Development and Commercialization of the Licensed Products by Alexion and its Affiliates and Sublicensees. Each Party will bear its own costs and expenses regarding such meetings.

4.7 Reports by Alexion. Alexion will prepare and maintain, and will cause its Affiliates and Sublicensees to prepare and maintain, reasonably complete and accurate records regarding the Development and Commercialization of Licensed Products in the Field. Commencing upon the completion of the Research Plan and continuing for the Term, Alexion will provide to Blueprint a reasonably detailed annual report regarding such efforts once per calendar year in the […***…]. Such report will contain sufficient detail to enable Blueprint to assess Alexion's compliance with its Development and Commercialization obligations under this Article 4.

ARTICLE 5

LICENSES AND EXCLUSIVITY

5.1 Licenses to Alexion.

(a) Subject to the terms and conditions of this Agreement, Blueprint hereby grants to Alexion an exclusive license (even as to Blueprint), with the right to sublicense […***…] (as permitted in accordance with Section 5.3), under the Blueprint Licensed Technology, to Exploit the Licensed Products and the Compounds in the Field in the Territory; *provided, however*, that (i) […***…] and […***…] For clarity, the use rights granted under this license will not be exercised in a manner to broaden the limited Research and Development described in the foregoing Clause (i) and permitted for pre-Commercialization activities.

(b) Alexion will not […***…] but will be permitted to exercise the rights granted under Sections 5.1(a)(i)(B) and (C) of this Agreement.

(c) In exercising its rights under this Agreement, Alexion will Research, Develop and Commercialize Compounds […***…].

5.2 Blueprint Retained Rights; Licenses to Blueprint.

(a) Notwithstanding the exclusive licenses granted to Alexion pursuant to Section 5.1, Blueprint and its Affiliates hereby retain (i) […***…] Blueprint will remove the Pre-Development Candidates and the lead and back-up Development Candidates from Blueprint's compound libraries at the

time of each such Compound's designation; provided that, if such removal is not feasible, Blueprint will prevent the collection and maintenance of data from Research activities based on the use of Pre-Development Candidates and Development Candidates.

(b) Subject to the terms and conditions of this Agreement, Alexion hereby grants to Blueprint a non-exclusive, sublicensable (as permitted in accordance with Section 5.3), royalty-free, fully-paid license under the Alexion Licensed Technology solely to conduct the activities assigned to Blueprint under the Research Plan.

(c) Subject to the terms and conditions of this Agreement, Alexion hereby grants to Blueprint […***…]. Subject to the terms and conditions of this Agreement, Alexion hereby grants to Blueprint […***…], either alone or with subcontractors or consultants, for the purpose of ensuring compliance with the terms and conditions of this Agreement.

5.3 Sublicensing.

(a) Scope of Permissible Sublicensing.

(i) The license granted by Blueprint to Alexion in Section 5.1(a) may be sublicensed by Alexion to: (A) an Affiliate of Alexion without any requirement of consent, provided that such sublicense to an Affiliate of Alexion will immediately terminate if and when such party ceases to be an Affiliate of Alexion, or (B) a Third Party without any requirement of consent, provided that Alexion promptly notifies Blueprint of such sublicense, and provided that, in each case of (A) and (B), (1) Alexion will ensure that the financial terms included in Article 6

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that are applicable to the scope of the sublicense granted remain unchanged, (2) Blueprint's obligations to such sublicensed Affiliate or Sublicensee will be no broader than Blueprint's obligations were to Alexion under this Agreement prior to Alexion's grant of such a sublicense, and (3) Alexion will be liable for any act or omission of any such sublicensed Affiliate or Sublicensee that is a breach of any of Alexion's obligations under this Agreement as though the same were a breach by Alexion, and Blueprint will have the right to proceed directly against Alexion without any obligation to first proceed against such sublicensed Affiliate or Sublicensee, (4) Alexion will ensure that Alexion receives from the sublicensee all rights necessary for Alexion to grant to Blueprint the rights and licenses upon termination of the Agreement set forth in Section 11.5(a)(v), and (5) such sublicensed Affiliate or Sublicensee will undertake in writing obligations of confidentiality and non-use regarding Confidential Information that are at least as protective as those undertaken by Alexion with respect to Confidential Information pursuant to Article 10 hereof.

(ii) The license granted by Alexion to Blueprint in Section 5.2(b) may be sublicensed by Blueprint to a subcontractor to perform Blueprint's assigned responsibilities under the Research Plan upon prompt written notice to Alexion and in compliance with Section 2.5.

5.4 No Implied Licenses. Except as explicitly set forth in this Agreement, neither Party grants to the other Party any license or other rights, express or implied, under any intellectual property rights.

5.5 Blueprint Third Party Payments.

(a) Blueprint will be responsible for all payments associated with any agreements related to the Blueprint Licensed Technology that exist as of the Effective Date, except as otherwise agreed by Alexion in writing. For clarity, to the extent payments under those agreements are incurred by Blueprint pursuant to the Research Plan, such payments will not be reimbursed by Alexion unless they are specifically included under the Research Plan budget as an amount to be reimbursed by Alexion.

(b) In the event that, after the Effective Date, Blueprint in-licenses Blueprint Licensed Technology that would be deemed Controlled for purposes of the license granted to Alexion under Section 5.1(a) but for Blueprint owing payments under the agreement for such in-licensed Blueprint Licensed Technology on account of any sublicense granted thereunder to Alexion or its Affiliates or Sublicensees, Blueprint will notify Alexion of the existence of and anticipated amounts of such payments and Alexion will have the right to decline a sublicense to such in-licensed Blueprint Licensed Technology or take such sublicense, in which case Alexion agrees to comply with any obligations under such agreement of Blueprint that apply to Alexion and of which Alexion was informed by Blueprint, including, without limitation, any obligation to make such payments. In the event Alexion elects to take such sublicense, Alexion will make such payments to Blueprint within […***…] days of receiving an invoice from Blueprint for the same.

5.6 Exclusivity.

(a) Indication Exclusivity. During the Exclusivity Term, Blueprint will not (i) alone or with others, research (or fund any research), develop, make, use, sell, offer for sale, or import any […***…] or (ii) discuss or enter into negotiations with any Third Party regarding a license or other disposition of rights relating to the same.

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(b) Molecule Exclusivity.

(i) During the Exclusivity Term, outside of activities that may be set out in the Research Plan or in this Section 5.6(b)(i), Blueprint will not (A) alone or with others, research (or fund any research), develop, make, use, sell, offer for sale, or import any Protected Compound for any purpose, […***…].

(ii) Further, during the Exclusivity Term, outside of activities that may be set out in the Research Plan or in Section 4.3, Blueprint will not (A) alone or with others, research (or fund any research), develop, make, use, sell, offer for sale, or import any Compound for any purpose, […

***…] (B) discuss or enter into negotiations with any third party regarding a license or other disposition of rights relating to the same.

(iii) Blueprint will use reasonable efforts to identify and will maintain a list of all Protected Compounds during the Term. Further, during the Research Term and for the shorter of (A) […***…] years following the end of the Research Term and (B) […***…], Blueprint will annually certify to Alexion that such list is being maintained.

(c) Target Exclusivity. During the Exclusivity Term, other than pursuant to this Agreement, Blueprint will not (i) alone or with others, research (or fund any research), develop, make, use, sell, offer for sale, or import any molecules with the goal of inhibiting the Target, or any […***…] approaches to inhibit or replace the Target, or (ii) discuss or enter into negotiations with any Third Party regarding a license or other disposition of rights relating to the same.

ARTICLE 6

FINANCIALS

6.1 Upfront Payment. No later than […***…] days after the Effective Date, Alexion will pay to Blueprint a one-time, non-refundable, non-creditable payment of […***…].

6.2 Pre-Clinical and Development Milestone Payments. In consideration for the rights granted to Alexion under this Agreement:

(a) Pre-Clinical Milestone Payments. Alexion will make the following pre-clinical milestone payments to Blueprint once for the first Compound that achieves the corresponding pre-clinical milestone event.

TABLE 1

	Pre-clinical Milestone Event	Milestone Payment
(1)	[...***...]	[...***...]
(2)	[...***...]	[...***...]
(3)	[...***...]	[...***...]
(4)	[...***...]	[...***...]
(5)	[...***...]	[...***...]
	Total potential Preclinical Milestones	[...***...]

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(b) Development Milestone Payments.

(i) In addition, Alexion will make the following Development milestone payments to Blueprint once for the first Licensed Product that achieves the corresponding Development milestone event.

TABLE 2

	Development Milestone Event — first Licensed Product	Milestone Payment
(1)	[...***...]	[...***...]
(2)	[...***...]	[...***...]
(3)	[...***...]	[...***...]
(4)	[...***...]	[...***...]
(5)	[...***...]	[...***...]
(6)	[...***...]	[...***...]
(7)	[...***...]	[...***...]
(8)	[...***...]	[...***...]
(9)	[...***...]	[...***...]
(10)	[...***...]	[...***...]
	Total Potential Development Milestone Payments for first Licensed Product	[...***...]

(ii) Further, Alexion will make the following Development milestone payments to Blueprint once for a second Licensed Product containing a different Compound from the first Licensed Product on which Development milestone payments were paid.

TABLE 3

	Development Milestone Event — second Licensed Product	Milestone Payment
(1)	[...***...]	[...***...]
(2)	[...***...]	[...***...]
(3)	[...***...]	[...***...]
(4)	[...***...]	[...***...]
(5)	[...***...]	[...***...]
(6)	[...***...]	[...***...]
	Total Potential Development Milestone Payments for the second Licensed Product	[...***...]

(c) Clarification.

(i) If any particular Licensed Product achieves any Development milestone event more than once, only one payment will be due.

(ii) Each Development milestone payment in TABLE 2 and TABLE 3 will be payable for the first Licensed Product to achieve such milestone event, provided that, if a Licensed Product is replaced with a different Licensed Product at any point in Development, then no milestone payment already paid for a milestone event achieved by the replaced Licensed Product will be payable for the replacement Licensed Product, provided that milestone events not yet achieved by the replaced Licensed Product would remain payable for the replacement

Licensed Product, but, further provided that, in the event a first Licensed Product is abandoned at a time when a second Licensed Product is in Development, then such second Licensed Product will replace such first Licensed Product for payment of the remaining TABLE 2 milestone payments (*i.e.*, those not previously achieved by such first Licensed Product) and the next License Product to be Developed will replace such second Licensed Product for payment of the remaining TABLE 3 milestone payments (*i.e.*, those not previously achieved by such second Licensed Product).

(iii) The Development Milestone Events (1) — (3) in TABLE 2 and (1) — (2) in TABLE 3 (the "**Clinical Milestone Events**") are intended to be successive. If any Clinical Milestone Event is reached without achieving a preceding Clinical Milestone Event, then the corresponding milestone payment for such preceding Clinical Milestone Event will be paid upon the achievement of the later Clinical Milestone Event.

(iv) For clarity, the milestone payments under this Section 6.2 will be owed and payable to Blueprint whether the milestone event triggering such milestone payment was achieved by Alexion or any of its Affiliates or Sublicensees.

(d) Notice; Payment. Alexion will notify and pay to Blueprint the amounts set forth in this Section 6.2 within […***…] days after the achievement of the applicable milestone event by Alexion, its Affiliate or a Sublicensee. Each such payment will be made by wire transfer of immediately available funds into an account designated by Blueprint. Each such payment is non-refundable and non-creditable against any other payments due hereunder.

6.3 Commercial Milestone Payments.

(a) Alexion will make each of the commercial milestone payments indicated below to Blueprint once for the first Licensed Product and for the second Licensed Product when annual worldwide Net Sales of such first Licensed Product or second Licensed Product, as applicable, across all indications in the Territory in a given calendar year first reach the dollar values indicated below during the Term.

TABLE 4

	Commercial Milestone Event, payable once for the first Licensed Product and second Licensed Product	**Milestone Payment**
(1)	[...***...]	[...***...]
(2)	[...***...]	[...***...]
(3)	[...***...]	[...***...]
	Total Potential Pre-Clinical, Development and Commercial Milestone Payments — first Licensed Product	[...***...]
	Total Potential Development and Commercial Milestone Payments — second Licensed Product	[...***...]

(b) Notice; Payment. Alexion will notify and pay to Blueprint the amounts set forth in this Section 6.3 within […***…] days after the achievement of the applicable milestone event by Alexion, its Affiliate or a Sublicensee. Each such payment will be made by wire transfer of immediately

available funds into an account designated by Blueprint. Each such payment is non-refundable and non-creditable against any other payments due hereunder.

6.4 Royalties.

(a) Alexion will pay to Blueprint non-refundable, non-creditable royalties on a Licensed Product-by-Licensed Product and country-by-country basis on annual worldwide Net Sales during a calendar year during the Royalty Term at the royalty rates set forth below:

[...*...]**	**Royalty Rate**
[...***...]	[...***...]
[...***...]	[...***...]
[...***...]	[...***...]
[...***...]	[...***...]

[...*...]**	**Royalty Rate**
[...***...]	[...***...]
[...***...]	[...***...]
[...***...]	[...***...]
[...***...]	[...***...]

By way of example, and without limitation, if, following the First Commercial Sale, the aggregate Net Sales of a Licensed Product in the Territory in a particular calendar year is […***…], the amount of royalties payable under this Section 6.4(a) will be as follows: […***…]

(b) Royalty Term. The royalty term ("**Royalty Term**") for a Licensed Product will begin with […***…], and will expire on a Licensed Product-by-Licensed Product and country-by-country basis upon the later of clause (i), (ii) or (iii) below:

(i) expiration of the last to expire Valid Claim in that country under the Blueprint Licensed Technology that is a composition of matter or method of use claim Covering such Licensed Product,

(ii) the first expiration of the longest Regulatory Exclusivity that starts upon Regulatory Approval/launch for such Licensed Product in such country (including orphan and NCE exclusivity), or

(iii) […***…].

(c) Additional Royalty Provisions.

(i) General. The royalties payable under Section 6.4(a) will be subject to the following:

(A) only one royalty will be payable hereunder with respect to each Licensed Product unit;

(B) royalties when owed or paid hereunder will be non-refundable and non-creditable and, except as set forth in Section 6.6, not subject to set-off; and

[…***…]

(ii) Royalty Reductions.

(A) If, pursuant to Sections 6.4(a) and 6.4(b), any royalties are payable on Net Sales of a Licensed Product attributable to any country in the Territory where there is no composition of matter or method of use Valid Claim in an issued patent in such country Covering such Licensed Product ([…***…]) and there is no applicable Regulatory Exclusivity for such Licensed Product in such country, then the royalty rates applicable to those Net Sales of such Licensed Product for such country will be reduced by […***…] from those set forth in Section 6.4(a).

(B) If, pursuant to Sections 6.4(a) and 6.4(b), any royalties are payable on Net Sales of a Licensed Product attributable to any country in the Territory where there is no composition of matter or method of use Valid Claim in an issued patent in such country Covering such Licensed Product […***…] but there is applicable Regulatory Exclusivity for such Licensed Product in such country, then the royalty rates applicable to those Net Sales of such Licensed Product for such country will be reduced by […***…] from those set forth in Section 6.4(a).

(iii) Third Party Offsets. Alexion will have the right to reduce (A) royalties payable to Blueprint pursuant to this Section 6.4 based on royalties and damages paid to Third Parties attributable to Alexion's use of Blueprint's library screening technology (but not any Compounds), and (B) royalties and up to […***…] in Development milestones from Phase II onwards, payable to Blueprint pursuant to this Section 6.4 and Section 6.2(b), respectively, by […***…] of the payments Alexion pays to Third Parties to license any patent rights that are necessary or useful to develop, make, use, sell, offer for sale, or import Licensed Products for their commercialization, provided, in each case of (A) and (B), the royalty rates will not be reduced by more than […***…] from those set forth in Section 6.4(a).

(iv) Minimum Royalties. Notwithstanding any multiple reductions or offsets that may be taken pursuant to this Agreement, except as provided in Section 11.5(b)(i)(A), in no event will the royalty rates under this Agreement fall below […***…] of the royalty rates set forth in Section 6.4(a), with any excess to be carried forward into the immediately following royalty period.

6.5 Royalty Payments and Reports. During the Royalty Term, within […***…] days after the end of each calendar quarter, Alexion shall provide a royalty report, on a Licensed Product-by-Licensed Product basis, to Blueprint showing:

(a) the Net Sales of each Licensed Product received by Alexion, its Affiliates and (sub)licensees during such calendar quarter reporting period, and […***…]);

(b) the royalties payable in United States dollars which shall have accrued hereunder with respect to such Net Sales;

(c) withholding taxes, if any, required by Applicable Law to be deducted with respect to such royalties; and

(d) the rate of exchange with supporting calculations, determined in accordance with Section 6.9, used by Alexion in determining the amount of United States dollars payable hereunder.

Alexion shall pay to Blueprint the royalties for each calendar quarter at the time of submission of Alexion's royalty report. If no royalty is due for any royalty period hereunder following commencement of the reporting obligation, Alexion shall so report.

6.6 Other Amounts Payable. Within […***…] days after the end of each calendar quarter, each Party will invoice the other Party for any amounts owed by the other Party under this Agreement that are not otherwise accounted for in this Article 6, including payments by Alexion to Blueprint under the Research Plan in accordance with Section 2.2(b), and payments made on account of expenses and recoveries pursuant to Section 7.2. The invoicing Party will have the right to offset part or all of such invoiced amounts (but not any other amounts that may be owed) against payments owed to the other Party by the

invoicing Party pursuant to this Article 6 (including payments in respect of milestones or royalties). The owing Party will pay any undisputed amounts that have not been so offset within […***…] days of receipt of the invoice, and any disputed amounts owed by a Party will be paid (or offset) within […***…] days of resolution of the dispute.

6.7 Taxes.

(a) Taxes on Income. Each Party will be solely responsible for the payment of all taxes imposed on its share of income arising directly or indirectly from the collaborative efforts of the Parties under this Agreement.

(b) Tax Cooperation. The Parties agree to cooperate with one another and use reasonable efforts to avoid or reduce tax withholding or similar obligations in respect of royalties, milestone payments, and other payments made by Alexion to Blueprint under this Agreement. Without limiting the generality of the foregoing, Blueprint will provide Alexion any tax forms and other information that may be reasonably necessary in order for Alexion to not withhold tax. Each Party will provide the other with reasonable assistance to enable the recovery, as permitted by Applicable Law, of withholding taxes, value added taxes, or similar obligations resulting from payments made under this Agreement, such recovery to be for the benefit of the Party bearing such withholding tax or value added tax.

(c) Payment of Tax. To the extent Alexion is required by Applicable Law to deduct and withhold taxes on any payment to Blueprint, Alexion will pay the amounts of such taxes to the proper Governmental Authority in a timely manner and promptly transmit to Blueprint an official tax certificate or other evidence of such withholding sufficient to enable Blueprint to claim such payment of taxes.

6.8 Blocked Currency. If by Applicable Law or fiscal policy of a particular country, conversion into U.S. dollars or transfer of funds of a convertible currency to the United States is restricted or forbidden, royalties accrued in that country shall be paid to Blueprint in the country in local currency by deposit in a local bank designated by Blueprint, unless the Parties otherwise agree.

6.9 Foreign Exchange. The rate of exchange to be used in computing the amount of currency equivalent in U.S. dollars of Net Sales received in other currencies will be the rate of exchange at the close of business on the date Alexion receives the payment from the Alexion customer. Each daily exchange rate will be obtained from Thomson Reuters or, if not so available, as otherwise agreed by the Parties. For purposes of calculating the Net Sales thresholds set forth in Sections 6.3(a) and 6.4(a), the aggregate Net Sales with respect to each calendar quarter within a calendar year will be calculated based on the rate of exchange at the close of business on the date in which such Net Sales occurred, in a manner consistent with the exchange rate procedures set forth in this Section 6.9.

6.10 Late Payments. If a Party does not receive payment of any sum due to it on or before the due date therefor, simple interest will thereafter accrue on the sum due to such Party from the due date until the date of payment at a per-annum rate of […***…] above the prime rate as reported in The Wall Street Journal, Eastern Edition, or the maximum rate allowable by Applicable Law, whichever is less.

6.11 Financial Records; Audits. Alexion will maintain, and will cause its Affiliates and its Sublicensees to maintain, complete and accurate records in sufficient detail to permit Blueprint to confirm the achievement of commercial milestones, royalty payments and other compensation or reimbursement payable to Blueprint under this Agreement. Upon reasonable prior notice, such records will be open during regular business hours for a period of […***…] years from the creation of individual records for examination at Blueprint's expense, and not more often than once each calendar year, by an independent certified public accountant selected by Blueprint and reasonably acceptable to Alexion for the sole purpose of verifying for Blueprint the accuracy of the financial statements or reports or commercial milestone notices furnished by Alexion pursuant to this Agreement or of any payments made, or required to be made, by Alexion to Blueprint pursuant to this Agreement. Any such auditor will not disclose Alexion's Confidential Information to Blueprint, except to the extent such disclosure is necessary to verify the accuracy of the financial reports furnished by Alexion or the amount of payments due by Alexion under this Agreement. Any amounts shown to be owed but unpaid will be paid within […***…] days after the accountant's report, plus interest (as set forth in Section 6.10) from the original due date (unless challenged in good faith by Alexion, in which case any undisputed portion will be paid in accordance with the foregoing timetable, any dispute with respect to such challenge will be resolved in accordance with Article 12, any remaining disputed portion will be paid within […***…] days after resolution of the dispute, and interest will not accrue with respect to the disputed portion during the period of time the dispute is being resolved). Blueprint will bear the full cost of such audit unless such audit reveals an underpayment by Alexion that resulted from a discrepancy in a report that Alexion provided to Blueprint during the applicable audit period, which underpayment was more than […***…] of the amount set forth in such report, in which case Alexion will bear the full cost of such audit. In the event that Alexion has overpaid Blueprint, Alexion shall have the right to invoice Blueprint for such overpayment (but in any event no later than […***…] days after Alexion's receipt of the independent report so concluding) and Blueprint shall, as soon as practicable after receipt of such invoice, refund such overpayment by Alexion; provided, however, that, at Blueprint's option, Blueprint may instead allow Alexion to credit the amount of any such overpayment against future milestone or royalty payments owed by Alexion hereunder.

6.12 Manner and Place of Payment. All payments owed under this Agreement will be made by wire transfer in immediately available funds to a bank and account designated in writing by Blueprint or Alexion (as applicable), unless otherwise specified in writing by such Party.

ARTICLE 7

INTELLECTUAL PROPERTY

7.1 Ownership of Research Program IP.

(a) As between the Parties, Blueprint will solely own all right, title and interest in and to […***…]; and (iv) other technology improvements directed to the subject matter of Clauses (ii) and (iii), and all intellectual property rights pertaining to the foregoing (collectively, the "**Blueprint**

IP"). During the Research Term and for a period of […***…] thereafter, the Parties will promptly disclose to each other any Blueprint IP conceived, first reduced to practice or otherwise made by or on behalf of the disclosing Party, and will provide the non-disclosing Party such documentation regarding the same as such non-disclosing Party may reasonably request. Alexion, for itself and on behalf of its Affiliates, licensees and sublicenses, and employees, subcontractors, consultants and agents of any of the foregoing, hereby assigns (and to the extent such assignment can only be made in the future hereby agrees to assign), to Blueprint all right, title and interest in and to Blueprint IP (unless already owned by Blueprint). Alexion will cooperate, and will cause the foregoing persons and entities to cooperate, with Blueprint to effectuate and perfect the foregoing ownership, including by promptly executing and recording assignments and other documents consistent with such ownership.

(b) As between the Parties, Alexion will solely own all right, title and interest in and to […***…], and all intellectual property rights pertaining thereto, […***…] (collectively, the "**Alexion IP**"). […***…]. During the Research Term and for a period of […***…] months thereafter, the Parties will promptly disclose to each other any Alexion IP conceived, first reduced to practice or otherwise made by or on behalf of the disclosing Party, and will provide the non-disclosing Party such documentation regarding the same as the non-disclosing Party may reasonably request. Blueprint, for itself and on behalf of its Affiliates, licensees and sublicenses, and employees, subcontractors, consultants and agents of any of the foregoing, hereby assigns (and to the extent such assignment can only be made in the future hereby agrees to assign), to Alexion all right, title and interest in and to Alexion IP (unless already owned by Alexion). Blueprint will cooperate, and will cause the foregoing persons and entities to cooperate, with Alexion to effectuate and perfect the foregoing ownership, including by promptly executing and recording assignments and other documents consistent with such ownership.

(c)

(i) Other than Blueprint IP and Alexion IP, after the end of the Research Term or with respect to any Development Candidate following completion of GLP toxicology studies for the lead Development Candidate, each Party will own all inventions, ideas and discoveries, and all intellectual property rights pertaining thereto, that it conceives or otherwise makes in the course of exercising its rights or performing its responsibilities under this Agreement, but, in any event, excluding Blueprint IP (collectively, "**Other IP**"). Other IP conceived or made solely by Blueprint will be solely owned by Blueprint ("**Blueprint Other IP**"), Other IP conceived or made solely by Alexion will be solely owned by Alexion ("**Alexion Other IP**"), and Other IP conceived or made jointly by Blueprint and Alexion will be jointly owned by both Parties ("**Joint Other IP**").

(ii) Each Party will promptly disclose to the other any Blueprint Other IP (but, for clarity in the case of Blueprint, not including inventions, ideas and discoveries, and all intellectual property rights pertaining thereto, that Blueprint conceives or otherwise makes in the

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course of exercising its retained rights under Sections 5.2(a) and 5.6(b)(i) or the license rights under Section 5.2(c)) or Alexion Other IP, as applicable, conceived, first reduced to practice or otherwise made by or on behalf of the disclosing Party, and Controlled by the disclosing Party, and will provide to the non-disclosing Party such documentation regarding the same as the non-disclosing Party may reasonably request, (i) during the Research Term and for a period of […***…] thereafter in the case of Alexion Other IP, and (ii) during the Research Term and for a period of […***…] years thereafter in the case of Blueprint Other IP.

(iii) Each Party will have an undivided one-half interest in and to the Joint Other IP. Each Party will exercise its ownership rights in and to such Joint Other IP, including the right to license and sublicense or otherwise to exploit, transfer or encumber its ownership interest, without an accounting or obligation to, or consent required from, the other Party, but subject to the licenses hereunder and the other terms and conditions of this Agreement. At the reasonable written request of a Party, the other Party will in writing grant such consents and confirm that no such accounting is required to effect the foregoing regarding Joint Other IP. Each Party, for itself and on behalf of its Affiliates, licensees and sublicenses, and employees, subcontractors, consultants and agents of any of the foregoing, hereby assigns (and to the extent such assignment can only be made in the future hereby agrees to assign), to the other Party a joint and undivided interest in and to all Joint Other IP.

(d) This Agreement will be understood to be a joint research agreement in accordance with 35 U.S.C. §102(c) to Develop and Commercialize Compounds and Licensed Products, provided that neither Party will (i) unilaterally invoke the protections of or (ii) be required by this reference to have any Patent take advantage of or become subject to, the available exceptions to 35 U.S.C. 102 and 103 based on 35 U.S.C. §102(c), except with the prior written consent of the other Party.

7.2 Prosecution, Maintenance & Enforcement of Research Program IP.

(a) Blueprint Other IP or Alexion Other IP. Each Party will have the sole right, responsibility and discretion to file, prosecute (including the defense of any oppositions, interferences, reissue proceedings, reexaminations and other post-grant proceedings originating in a patent office), maintain and enforce intellectual property rights pertaining to the Other IP that it solely owns at such Party's sole cost.

(b) Joint Other IP. The Parties will confer and collaborate on matters of prosecution (including the defense of any oppositions, interferences, reissue proceedings, reexaminations and other post-grant proceedings originating in a patent office), maintenance and enforcement of the Joint Other IP. The filing, prosecution and maintenance, and the enforcement and defense, of any Patents within the Joint Other IP will be jointly managed by the Parties on mutually agreeable terms to be entered into by the Parties at the time any such Patents are first filed, and all recoveries and out-of-pocket costs and expenses arising from those activities, absent further agreement, will be shared equally by the Parties in accordance with Section 6.6 (provided that sufficient advance written notice of any such costs or expenses is given to the Party not incurring same), provided that if either Party elects not to pay any such costs or expenses for any such Patent, the Parties will meet and agree upon an equitable way to treat such Patent.

(c) Alexion IP. Alexion will have the sole right, responsibility and discretion to file, prosecute (including the defense of any oppositions, interferences, reissue proceedings, reexaminations and other post-grant proceedings originating in a patent office), maintain and enforce intellectual property rights pertaining to the Alexion IP at its sole cost.

(d) Prosecution & Maintenance of Blueprint IP.

(i) Blueprint IP Patents. Subject to Section 7.2(d)(ii), Blueprint will be responsible for the preparation, filing, prosecution (including the defense of any oppositions, interferences, reissue proceedings, reexaminations and other post-grant proceedings originating in a patent office) and maintenance of any Patents within the Blueprint IP (such Patents, the "**Blueprint IP Patents**"). Blueprint will provide to Alexion all patent office papers promptly upon receipt, and drafts of responses to office actions from and other substantive filings with any patent offices regarding the Blueprint IP Patents sufficiently in advance before their submission to enable review and comment by Alexion, and Blueprint will consider in good faith all comments timely made by Alexion. Subject to Section 7.2(d)(ii), Blueprint will be responsible for (A) […***…] and (B) […***…], and (3) improvements to subject matter in Clauses (1) and (2). In the event Blueprint chooses to abandon any Patent or to not file or otherwise pursue any Patent within the Blueprint IP Patents that Alexion wishes to maintain or pursue and for which Alexion […***…], Blueprint will first notify Alexion and Alexion will have the right, but not the obligation, to assume the preparation, filing, maintenance and/or prosecution of such Patent, in Blueprint's name, and Alexion […***…]. If Alexion elects to assume the preparation, filing, maintenance and/or prosecution of any such Patent, Alexion will provide to Blueprint all patent office papers promptly upon receipt, and drafts of responses to office actions from and other substantive filings with any patent offices regarding such Patent sufficiently in advance before their submission to enable review and comment by Blueprint, and Alexion will consider in good faith all comments timely made by Blueprint. Notwithstanding the foregoing, if Alexion notifies Blueprint in writing that it does not wish to pay for a Blueprint IP Patent in a given country (each such country, an "**Excluded Country**"), then (a) Blueprint may continue to prepare, file, prosecute or maintain such Blueprint IP Patent in such Excluded Country, in its sole discretion, (b) the licenses granted in Section 5.1 will terminate with respect to such Blueprint IP Patent in such Excluded Country, and (c) Alexion will not be responsible for paying the Patent Costs for such Blueprint IP Patent in such Excluded Country that are incurred on or after the date of such notice.

(ii) Specific Patents; Intermediate Patents.

(A) At the time each of the […***…] in accordance with the Research Plan and throughout the Term thereafter, the Parties, acting in good faith, will work together to identify for filing:(I) […***…] (the "**Specific Patents**"), and (II) […***…] (such other Blueprint IP Patents, the "**Intermediate Patents**"). Blueprint will use Diligent Efforts to file such Specific Patents and Intermediate Patents, in each case for which Alexion will assume prosecution and maintenance and pay all Patent Costs as set forth in Sections 7.2(d)(ii)(B) and 7.2(d)(ii)(C). For the sake of clarity, Specific Patents and Intermediate Patents may include […***…]For the sake of clarity, […***…]Further, for clarity[…***…].

(B) Alexion will have the option (by written notice to Blueprint) to assume responsibility for (I) […***…] In the event the claims of any Patent within the Intermediate Patents Cover […***…] beyond those described in clauses (1) or (2) of Section 7.2(d)(ii)(A) above, then such Patent will […***…]. In the event any claim of any Specific Patent is broadened during prosecution beyond the definition of a Specific Patent, then, unless such Patent meets the definition of an Intermediate Patent, […***…].

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(C) In the event Alexion exercises its option to assume any of the […***…] set forth in Section 7.2(d)(ii)(B) with respect to […***…], Alexion will […***…]. Further, Alexion will provide to Blueprint all patent office papers promptly upon receipt, and drafts of responses to office actions from and other substantive filings with any patent offices regarding the Specific Patents or the Intermediate Patents sufficiently in advance before their submission […***…].

(iii) Patent Term Extensions. With respect to Licensed Products, Alexion will have lead responsibility, in consultation with Blueprint for Specific Patents and Intermediate Patents, to apply for and obtain any patent term extension or related extension of rights, including supplementary protection certificates and similar rights, for any Specific Patents or Intermediate Patents anywhere in the Territory. If the Parties disagree on the appropriate strategy with respect to such an extension of a Specific Patent or Intermediate Patents under the preceding sentence, the disagreement will be resolved in accordance with Article 12. Each Party will provide reasonable assistance to the other Party in connection with obtaining any such extensions for the Specific Patents and Intermediate Patents consistent with such strategy. To the extent reasonably and legally required in order to obtain any such extension in a particular country, each Party will make available to the other a copy of the necessary documentation to enable such other Party to use the same for the purpose of obtaining the extension in such country. With respect to products other than Licensed Products, Blueprint will have the sole right, but agrees to consult with Alexion, to apply for and obtain any patent term extension or related extension of rights, including supplementary protection certificates and similar rights, for any Blueprint IP Patents that are not Specific Patents or Intermediate Patents. Blueprint shall have no right to seek an extension of a Specific Patent or Intermediate Patent except in connection with a Licensed Product and in consultation with Alexion as set forth in this paragraph.

(iv) Orange Book Listings. Alexion will have lead responsibility for making any filing with respect to any Blueprint IP Patent and Licensed Products in connection with the FDA's Orange Book, under the national implementations of Article 10.1(a)(iii) of Directive 2001/EC/83 or other international equivalents. Alexion will consult with Blueprint regarding the strategy therefor. If the Parties disagree on the appropriate strategy with respect to such a filing, the disagreement will be resolved in accordance with Article 12. Each Party will provide reasonable assistance to the other Party in connection with any such filing.

(e) Cooperation. Each Party will provide the other Party all reasonable notice, assistance and cooperation in the Patent prosecution efforts provided in this Section 7.2, including providing any necessary powers of attorney and executing any other required documents or instruments for such prosecution.

(f) Enforcement & Defense of Blueprint IP Patents.

(i) Enforcement

(A) Notification. Each Party will promptly notify, in writing, the other Party upon learning of any actual or suspected Competitive Infringement by a Third Party, and will, along with such notice, supply the other Party with any evidence in its possession pertaining

thereto. For purposes of this Agreement, "**Competitive Infringement**" means any allegedly infringing activity with respect to (1) any Compound (including the composition of matter, use, formulation and manufacture thereof) or (2) any compound within the claim scope of

the Blueprint IP Patents that […***…] (including the composition of matter, use, formulation and manufacture thereof).

(B) Enforcement Rights. Alexion will have the first right (but not the obligation) to bring a suit or other action to enforce the Blueprint IP Patents against a Third Party with respect to any Competitive Infringement (and to defend any related counterclaim), at Alexion's expense. Alexion will have a period of […***…] days after its receipt or delivery of notice and evidence pursuant to Section 7.2(f)(i)(A), to elect to so enforce the Blueprint IP Patents (or to settle or otherwise secure the abatement of such Competitive Infringement). Blueprint may be represented by counsel of its choice in any such suit or action, at Blueprint's expense, acting in an advisory but not controlling capacity. In the event Alexion does not so elect (or settle or otherwise secure the abatement of such Competitive Infringement), it will so notify Blueprint in writing, and Blueprint will have the right (but not the obligation) to commence a suit or take action, at Blueprint's expense, to enforce the Blueprint IP Patents with respect to such Competitive Infringement (and to defend any related counterclaim), provided that Blueprint will have to obtain the prior written consent of Alexion (such consent not to be unreasonably withheld) before commencing any such suit or action unless Alexion's failure to enforce the Blueprint IP Patents with respect to such Competitive Infringement would materially reduce the royalties payable to Blueprint under this Agreement in which case such prior consent will not be required. Each Party will provide to the Party enforcing any such rights under this Section 7.2(f)(i)(B) reasonable assistance in such enforcement, at such enforcing Party's request and expense, including joining such suit or action as a party plaintiff if required to perfect or maintain jurisdiction to pursue such suit or action. The enforcing Party will keep the other Party regularly informed of the status and progress of such enforcement efforts, and will reasonably consider the other Party's comments on any such efforts. The enforcing Party will incur no liability to the other Party as a consequence of such enforcement efforts or any unfavorable decision resulting therefrom, including any decision holding any Blueprint IP Patent invalid or unenforceable.

(C) Settlement. Without the prior written consent of the other Party, neither Party will settle any suit or action that it brought under Section 7.2(f)(i)(B) in any manner that would limit or restrict the ability of either Party to Exploit any Licensed Products anywhere in the Territory.

(D) Expenses and Recoveries. A Party bringing a suit or action under Section 7.2(f)(i)(B) will be solely responsible for any expenses incurred by such Party as a result of such suit or action. If such Party recovers monetary damages in such suit or action, such recovery will be allocated first to the reimbursement of any expenses incurred by the Parties in such litigation, and any remaining amount will be distributed as follows: (x) to the extent such damages are based on lost profits, such amount will be treated as if it were Net Sales of Licensed Products under this Agreement (and, for clarity, any such amounts will be considered in the calculation of annual Net Sales for purposes of Section 6.4(a)), and (y) […***…], and (2) if Blueprint was the controlling Party, such amount will be divided as […***…] to Blueprint and […***…] to Alexion.

(ii) Defense. Except as set forth in Section 7.2(d), to the extent any Party receives notice by counterclaim, or otherwise, alleging the invalidity or unenforceability of any Blueprint IP Patent, it will bring such fact to the attention of the other Party, including all relevant

information related to such claim. Where such allegation is made in an opposition, reexamination, interference, post-grant proceeding or other patent office proceeding, the provisions of Section 7.2(d) will apply. Where such allegation is made in a declaratory judgment action, a counterclaim to a suit or other action brought under Section 7.2(f), the provisions of Section 7.2(f) will apply.

7.3 Defense of Infringement Actions. During the Term, each Party will bring to the attention of the other Party non-confidential information regarding potential infringement or any claim of infringement of Third Party intellectual property rights resulting from the practice of Blueprint IP Patents for Research, Development, Manufacture or Commercialization of Compounds or Licensed Products in the Territory. At the request of either Party, the Parties will discuss such information and how to handle such matter. Subject to Article 9, each Party will be solely responsible for defending any action, suit, or other proceeding brought against it alleging infringement of Third Party intellectual property rights in connection with its activities under this Agreement. This Section 7.3 will not be interpreted as placing on either Party a duty of inquiry regarding Third Party intellectual property rights.

7.4 Patent Marking. Alexion will, and will require its Affiliates and Sublicensees, to mark Licensed Products sold by it hereunder with appropriate patent numbers or indicia to the extent required by Applicable Law.

7.5 Personnel Obligations. Prior to beginning work under this Agreement relating to any Research, Development or Commercialization of a Compound or Licensed Product, each employee, agent or independent contractor of Alexion or Blueprint or of either Party's respective Affiliates or Sublicensees will be bound by non-disclosure and invention assignment obligations which are consistent with the obligations of Alexion or Blueprint, as appropriate, in this Article 7, to the extent permitted by Applicable Law, including: (a) promptly reporting any invention, discovery, process or other intellectual property right; (b) assigning to Alexion or Blueprint, as appropriate, all of his or her right, title and interest in and to any invention, discovery, process or other intellectual property right; (c) in the case of employees, agents, or independent contractors working in the United States, taking actions reasonably necessary to secure patent protection; (d) performing all acts and signing, executing, acknowledging and delivering any and all documents required for effecting the obligations and purposes of this Agreement; and (e) abiding by the obligations of confidentiality and non-use set forth in Article 10. It is understood and agreed that such non-disclosure and invention assignment agreement need not reference or be specific to this Agreement.

7.6 Trademarks. Alexion will be responsible for the selection, registration, maintenance and defense of all trademarks for use in connection with the sale or marketing of Licensed Products in the Field in the Territory (the "**Marks**"). The fees and expenses incurred in connection therewith will be the responsibility of Alexion. Alexion will own all Marks with respect to the Licensed Products.

ARTICLE 8

REPRESENTATIONS AND WARRANTIES

8.1 Mutual Representations and Warranties. Each Party hereby represents and warrants to the other Party as of the Effective Date, and covenants, as applicable, as follows:

(a) Corporate Existence and Power. It is a company or corporation duly organized, validly existing, and in good standing under the laws of the jurisdiction in which it is incorporated, and

has full corporate power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted and as contemplated in this Agreement, including the right to grant the licenses granted by it hereunder.

(b) Authority and Binding Agreement. (i) It has the corporate power and authority and the legal right to enter into this Agreement and perform its obligations hereunder; (ii) it has taken all necessary corporate action on its part required to authorize the execution and delivery of this Agreement and the performance of its obligations hereunder; and (iii) this Agreement has been duly executed and delivered on behalf of such Party, and constitutes a legal, valid, and binding obligation of such Party that is enforceable against it in accordance with its terms.

(c) No Conflict. It is not a party to and will not enter into any agreement that would prevent it from granting the rights or exclusivity granted or intended to be granted to the other Party under this Agreement or performing its obligations under this Agreement.

(d) Bankruptcy; Insolvency. It is not aware of any action or petition pending for bankruptcy or insolvency of such Party or its Affiliates in any state, country or other jurisdiction, and it is not aware of any facts or circumstances that could reasonably result in such Party becoming or being declared insolvent, bankrupt or otherwise incapable of meeting its obligations under this Agreement as they become due in the ordinary course of business.

(e) No Debarment. Such Party is not debarred, has not been convicted, and is not subject to debarment or conviction pursuant to Section 306 of the FD&C Act. In the course of the Research or Development of Compounds or Licensed Products, such Party has not, to its knowledge, used prior to the Effective Date, and will not use, during the Term, any employee, agent or independent contractor who has been debarred by any Regulatory Authority, or, to such Party's knowledge, is the subject of debarment proceedings by a Regulatory Authority or has been convicted pursuant to Section 306 of the FD&C Act.

8.2 Representations and Warranties by Blueprint. Blueprint hereby represents and warrants to Alexion as of the Effective Date, and covenants, as applicable, as follows:

(a) No IP Conflicts. As of the Effective Date, neither Blueprint nor any of its Affiliates has entered into any agreement (other than agreements with subcontractors) granting any right, interest or claim in or to, any Blueprint Licensed Technology to any Third Party that would conflict with the licenses and other rights granted to Alexion under this Agreement. As of the Effective Date, all intellectual property that is owned or licensed by Blueprint and which is necessary or useful to Research and Develop Compounds or Licensed Products is Controlled by Blueprint, other than commercially available software and commercially available laboratory materials. Following the Effective Date, Blueprint will not enter into any agreement with any Affiliate or Third Party that would conflict with the grant of the licenses and other rights to Alexion hereunder to the Blueprint Licensed Technology.

(b) No Notice of Infringement or Misappropriation. As of the Effective Date, (i) Blueprint has not received and is not aware of any written notice from any Third Party asserting or alleging that any research, development, use, manufacture, sale, offer for sale or importation of Blueprint Licensed Technology, Compounds or Licensed Products has infringed or misappropriated, or would infringe or misappropriate, the intellectual property rights of any Third Party, and (ii) no claim is pending, and neither Blueprint nor any of its Affiliates has received from a Third Party written notice of a claim or

threatened claim, to the effect that any granted Patent rights within the Blueprint Licensed Technology licensed to Alexion under this Agreement is invalid or unenforceable.

(c) No Misappropriation. To the knowledge of Blueprint, as of the Effective Date, (i) the conception and reduction to practice of any inventions and, to the knowledge of Blueprint, the use or development of any other Information within the owned Blueprint Licensed Technology have not constituted or involved the misappropriation of trade secrets or other rights or property of any Third Party, and (ii) no employee of Blueprint has misappropriated any Blueprint Licensed Technology. To the knowledge of Blueprint as of the Effective Date and without additional inquiry, no intellectual property right of a Third Party would be infringed, misappropriated or otherwise violated by use of the Blueprint Licensed Technology under this Agreement.

(d) Existing Blueprint IP. As of the Effective Date, neither Blueprint nor any of its Affiliates owns, Controls or has filed any Patents Covering the molecules listed on Exhibit A to this Agreement.

(e) Financial Statements. The 2013 audited financial statements that were delivered to Alexion before the Effective Date were prepared in accordance with GAAP and, since the date of such statements, there has not been any change, event or occurrence that has had or could reasonably be expected to have a material adverse effect on the business or financial condition of Blueprint, its ability to perform its obligations under this Agreement or Alexion's rights under this Agreement.

(f) Disclosure of Information. To the knowledge of Blueprint, all tangible Information and data provided by or on behalf of Blueprint to Alexion prior to or on the Effective Date with respect to this Agreement was and is true, accurate and complete in all material respects, and Blueprint has not disclosed, failed to disclose or caused to be disclosed any Information or data that could reasonably be expected to be misleading in any material respect.

(g) Protected Compounds. To the knowledge of Blueprint, Blueprint has disclosed to Alexion and included on Exhibit A hereto all molecules that Blueprint owns or controls, as of the Effective Date, that meet the definition of "Protected Compound" hereunder.

8.3 No Other Representations or Warranties. EXCEPT AS EXPRESSLY STATED IN THIS Article 8, NO REPRESENTATIONS OR WARRANTIES WHATSOEVER, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR NON-MISAPPROPRIATION OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS, IS MADE OR GIVEN BY OR ON BEHALF OF A PARTY. EXCEPT AS EXPRESSLY STATED IN THIS AGREEMENT, ALL REPRESENTATIONS AND WARRANTIES, WHETHER ARISING BY OPERATION OF LAW OR OTHERWISE, ARE HEREBY EXPRESSLY EXCLUDED.

ARTICLE 9

INDEMNIFICATION

9.1 Indemnification by Blueprint. Blueprint will defend, indemnify, and hold Alexion, its Affiliates, subcontractors and Sublicensees, and its and their respective officers, directors, employees, and agents (the "**Alexion Indemnitees**") harmless from and against any and all damages or other amounts payable to a Third Party claimant, as well as any reasonable attorneys' fees and costs of litigation incurred

by such Alexion Indemnitees (collectively, "**Alexion Damages**"), all to the extent resulting from claims, suits, proceedings or causes of action brought by or on behalf of such Third Party ("**Alexion Claims**") against such Alexion Indemnitee that arise from or are based on: (i) a breach of any of Blueprint's representations, warranties and obligations under this Agreement; or (ii) the willful misconduct or grossly negligent acts of Blueprint, its Affiliates, subcontractors or sublicensees (excluding Alexion, its Affiliates, subcontractors and Sublicensees as licensees or sublicensees of Blueprint hereunder), or the officers, directors, employees, or agents of Blueprint or its Affiliates, subcontractors, or sublicensees; excluding, in each case ((i) and (ii)), any damages or other amounts for which Alexion has an obligation to indemnify any Blueprint Indemnitee pursuant to Section 9.2.

9.2 Indemnification by Alexion. Alexion will defend, indemnify, and hold Blueprint, its Affiliates, subcontractors, licensees and sublicensees, and each of their respective officers, directors, employees, and agents, (the "**Blueprint Indemnitees**") harmless from and against any and all damages or other amounts payable to a Third Party claimant, as well as any reasonable attorneys' fees and costs of litigation incurred by such Blueprint Indemnitees (collectively, "**Blueprint Damages**"), all to the extent resulting from any claims, suits, proceedings or causes of action brought by such Third Party (collectively, "**Blueprint Claims**") against such Blueprint Indemnitee that arise from or are based on: (i) the Exploitation of Compounds or Licensed Products by Alexion or its Affiliates, subcontractors, or Sublicensees in the Territory; (ii) a breach of any of Alexion's representations, warranties, and obligations under this Agreement; or (iii) the willful misconduct or grossly negligent acts of Alexion or its Affiliates, subcontractors or Sublicensees, or the officers, directors, employees, or agents of Alexion or its Affiliates, subcontractors or Sublicensees; excluding, in each case ((i), (ii) and (iii)), any damages or other amounts for which Blueprint has an obligation to indemnify any Alexion Indemnitee pursuant to Section 9.1.

9.3 Indemnification Procedures. The Party claiming indemnity under this Article 9 (the "**Indemnified Party**") will give written notice to the Party from whom indemnity is being sought (the "**Indemnifying Party**") promptly after learning of the claim, suit, proceeding or cause of action for which indemnity is being sought ("**Claim**"). The Indemnifying Party's obligation to defend, indemnify, and hold harmless pursuant to Section 9.1 or 9.2, as applicable, will be reduced to the extent the Indemnified Party's delay in providing notification pursuant to the previous sentence results in prejudice to the Indemnifying Party. At its option, the Indemnifying Party may assume the defense of any Claim for which indemnity is being sought by giving written notice to the Indemnified Party within […***…] days after receipt of the notice of the Claim. The assumption of defense of the Claim will not be construed as an acknowledgment that the Indemnifying Party is liable to indemnify any Indemnified Party in respect of the Claim, nor will it constitute waiver by the Indemnifying Party of any defenses it may assert against the Indemnified Party's claim for indemnification. The Indemnified Party will provide the Indemnifying Party with reasonable assistance, at the Indemnifying Party's expense, in connection with the defense. The Indemnified Party may participate in and monitor such defense with counsel of its own choosing at its sole expense; provided, however, the Indemnifying Party will have the right to assume and conduct the defense of the Claim with counsel of its choice. The Indemnifying Party will not settle any Claim without the prior written consent of the Indemnified Party, not to be unreasonably withheld, unless the settlement involves only the payment of money. The Indemnified Party will not settle any such Claim without the prior written consent of the Indemnifying Party, which consent will not be unreasonably withheld. If the Indemnifying Party does not assume and conduct the defense of the Claim as provided above, (a) the Indemnified Party may defend against, and consent to the entry of any judgment or enter into any settlement with respect to the Claim in any manner the Indemnified Party may deem reasonably appropriate (and the Indemnified Party need not consult with, or obtain any consent from, the

Indemnifying Party in connection therewith), and (b) the Indemnified Party reserves any right it may have under this Article 9 to obtain indemnification from the Indemnified Party.

9.4 Limitation of Liability. NEITHER PARTY WILL BE LIABLE TO THE OTHER FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR INDIRECT DAMAGES ARISING FROM OR RELATING TO ANY BREACH OF THIS AGREEMENT OR ANY TORT CLAIMS ARISING HEREUNDER, REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 9.4 IS INTENDED TO OR WILL LIMIT OR RESTRICT A PARTY'S LIABILITY FOR DIRECT DAMAGES OR (A) THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF ANY PARTY UNDER SECTION 9.1 OR SECTION 9.2, (B) DAMAGES AVAILABLE IN THE CASE OF A PARTY'S FRAUD, GROSS NEGLIGENCE OR INTENTIONAL MISCONDUCT, (C) DAMAGES AVAILABLE TO A PARTY FOR A BREACH BY THE OTHER PARTY OF THE LICENSE AND EXCLUSIVITY OBLIGATIONS UNDER ARTICLE 5 […***…]

9.5 Insurance. During the Term, Blueprint will procure and maintain insurance with respect to its activities hereunder as specified in Exhibit E-1, and Alexion will, and will cause its Affiliates and its Sublicensees to, procure and maintain insurance (including clinical trial liability and product liability

insurance) with respect to its activities hereunder as specified in Exhibit E-2 at all times during which any Licensed Product is being clinically tested in human subjects or commercially distributed or sold. It is understood that such insurance will not be construed to create a limit of either Party's liability with respect to its indemnification obligations under this Article 9. Each Party will provide the other with written evidence of such insurance upon request. Each Party will provide the other with written notice at least […***…] days prior to the cancellation, non-renewal or material change in such insurance or self-insurance which materially adversely affects the rights of the other Party hereunder.

ARTICLE 10

CONFIDENTIALITY

10.1 Confidential Information. Except to the extent expressly authorized by this Agreement or otherwise agreed in writing by the Parties, each Party agrees that, during the Term and for […***…] years thereafter, it will, and will cause its Affiliates, to keep confidential and not publish or otherwise disclose to any Third Party, and not use for any purpose other than as provided for in this Agreement, any Confidential Information of the other Party or any of its Affiliates, provided that each Party and its Affiliates may disclose the Confidential Information of the other Party or its Affiliates to the receiving Party's and its Affiliates' officers, directors, employees and agents who in each case are bound by commercially reasonable obligations of confidentiality with respect to the use and disclosure of such Confidential Information. Notwithstanding the foregoing, Confidential Information of a Party or its Affiliate will exclude that portion of such information or materials that the receiving Party (or the receiving Party's Affiliate) can demonstrate by competent written proof:

(a) was already known to the receiving Party or its Affiliate, other than under an obligation of confidentiality, at the time of disclosure by the other Party;

(b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving Party;

(c) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any wrongful act, fault, or negligence of the receiving Party;

(d) is subsequently disclosed to the receiving Party or its Affiliate by a Third Party without obligations of confidentiality with respect thereto; or

(e) is independently discovered or developed by the receiving Party or its Affiliate without the aid, application, or use of Confidential Information.

The Parties acknowledge that Confidential Information has been provided by the Parties to each other prior to the Effective Date pursuant to the Existing Confidentiality Agreement. The Parties agree that as of the Effective Date, all such Confidential Information will be protected by the terms and conditions of this Agreement, which will replace those of such Existing Confidentiality Agreement.

Subject to the disclosure rights and obligations of the Parties in Sections 10.2 and 10.4, the Alexion IP, Alexion Other IP, the Research Plan and the data and Information generated under the Research Plan will be considered the Confidential Information of Alexion, except for the Blueprint Licensed Technology (including the Blueprint IP generated under the Research Plan).

10.2 Authorized Disclosure of Confidential Information. Notwithstanding Section 10.1, each Party may disclose Confidential Information to the extent (and only to the extent) such disclosure is reasonably necessary in the following situations:

(a) filing or prosecuting of Patents in accordance with Article 7;

(b) required regulatory filings and other required filings with Governmental Authorities (including Regulatory Authorities), including filings with the SEC or FDA, with respect to a Licensed Product as permitted hereunder, and press releases issued in connection with and limited to the repetition of some or all of the contents of such filings, provided that Blueprint will give Alexion at least […***…] Business Days prior advance notice of the proposed text and timing of such press release or announcement;

(c) responding to a valid order of a court of competent jurisdiction or other competent authority; provided that the receiving Party will first have given to the disclosing Party notice and a reasonable opportunity to quash the order or obtain a protective order requiring that the Confidential Information be held in confidence or used only for the purpose for which the order was issued; and provided further that if such order is not quashed or a protective order is not obtained, the Confidential Information disclosed will be limited to the information that is legally required to be disclosed;

(d) complying with Applicable Law (including regulations promulgated by securities exchanges) or with a legal or administrative proceeding;

(e) disclosure to its Affiliates and Third Parties of a redacted copy of this Agreement in the form set forth in Exhibit G hereto (the "**Redacted Agreement**"), only on a need-to-know basis and solely in connection with the performance by the disclosing Party of its obligations or the exercise of its rights under this Agreement (including with respect to Development, Manufacturing and Commercialization of Licensed Products), provided that each disclosee, prior to any such disclosure, must be bound by obligations of confidentiality and non-use at least as protective as those set forth in Sections 10.1 and 10.2; and

(f) disclosure to any bona fide potential or actual investor, investment banker, acquirer, merger partner, licensee, Sublicensee, collaborator or subcontractor of the Redacted Agreement, only on a need-to-know basis and subject to obligations of confidentiality and non-use at least as protective as those set forth in Sections 10.1 and 10.2; provided that, […***…], and (ii) […***…], may be disclosed only to bona fide potential or actual acquirers, merger partners, licensees, Sublicensees, or accredited investors (if not already permitted with Alexion's approval pursuant to the foregoing clause (i)), and only at such time as the disclosing Party reasonably and in good faith believes that such disclosing Party has reached agreement on all substantial economic terms and that the parties will execute a definitive agreement with respect to the proposed transaction within the following […***…] Business Days; provided that, in clause (ii) herein, such Third Party has executed with the disclosing Party, and a copy has been provided to the non-disclosing Party of, a confidentiality agreement with terms at least as protective with respect to Confidential Information as those set forth in Sections 10.1 and 10.2, and which confidentiality agreement for clause (ii) names the non-disclosing Party as an express third party beneficiary, with right of enforcement, thereof.

Notwithstanding the foregoing, in the event that a Party is required to make a disclosure of the other Party's Confidential Information pursuant to Sections 10.2(b), 10.2(c), 10.2(d), and 10.3(c), it will, except where impracticable, give reasonable advance notice to the other Party of such disclosure and use reasonable efforts to secure confidential treatment of such information. In any event, the Parties agree to take all reasonable action to avoid disclosure of Confidential Information hereunder.

10.3 Terms of Agreement; Press Releases.

(a) Confidential Information. The Parties agree that the terms of this Agreement, other than the Research Plan, are and will be treated as the Confidential Information of both Parties, subject to the provisions set forth in Section 10.2 and this Section 10.3.

(b) The Parties agree that Blueprint may, at Alexion's option either alone or with Alexion, issue a public announcement of the execution of this Agreement substantially in the form of the press release attached as Exhibit F promptly after the Effective Date. Subject to Section 10.2 and Blueprint's rights under Sections 10.3(c) and 10.4(a), after publication of the initial press release pursuant to the preceding sentence, if Blueprint or its Affiliates desires to make a press release or other similar public announcement concerning the terms of this Agreement or any activities under this Agreement, Blueprint must submit the proposed press release to Alexion and obtain Alexion's prior written consent (such consent not to be unreasonably withheld). Alexion or its Affiliates may make a press release or other similar public announcement concerning the terms of this Agreement or any activities under this Agreement, provided that Alexion will give Blueprint at least […***…] Business Days prior advance notice of the proposed text of such press release or announcement, and Blueprint will have a right to review and provide comments on such press release or announcement within […***…] Business Days after receipt thereof. Neither Party will be required to seek the permission of the other Party to repeat any information regarding the terms of this Agreement that have already been publicly disclosed by such Party or such Party's Affiliate, or by the other Party or any of its Affiliates, in accordance with this Section 10.3.

(c) The Parties acknowledge that either or both Parties may be obligated to make a filing (including the filing of a copy of this Agreement) with the SEC or other Governmental Authorities. Each Party will be entitled to make such a filing if required by Applicable Law (including in connection with any Initial Public Offering by Blueprint), provided that it will (i) submit in connection with such filing the Redacted Agreement attached hereto as Exhibit G, (ii) request, and use Diligent Efforts

*****Text Omitted and Filed Separately with the Securities and Exchange Commission Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 230.406**

consistent with Applicable Law to obtain, confidential treatment of all terms redacted from this Agreement, as reflected in the Redacted Agreement, (iii) promptly deliver to the other Party any written correspondence received by it or its representatives from such Governmental Authority with respect to such confidential treatment request and promptly advise the other Party of any other communications between it or its representatives with such Governmental Authority with respect to such confidential treatment request, and (iv) if such Governmental Authority requests any changes to the redactions set forth in the Redacted Agreement, use Diligent Efforts consistent with Applicable Law to support the redactions in the Redacted Agreement as originally filed and not agree to any changes to the Redacted Agreement without, to the extent practical, first discussing such changes with the other Party and taking the other Party's comments into consideration when deciding whether to agree to such changes (and in no event shall such Diligent Efforts require more than one communication to the applicable Governmental Authority supporting such proposed redactions). If the SEC or other Governmental Authorities requires any changes to the redactions set forth in the Redacted Agreement, and after a Party complies with the foregoing clauses (i) through (iv), then such Party may file and disclose publicly a version of this Agreement consistent with those requirements. Each Party will be responsible for its own legal and other external costs in connection with any such filing, registration or notification.

10.4 Presentation and Disclosure of Data and Information.

(a) Mutual. Except as otherwise permitted under Section 10.2, publication or any other public presentation or public disclosure of data and results of nonclinical studies generated under the Research Plan prior to the nomination of a Pre-Development Candidate will be made by mutual agreement of the Parties.

(b) By Blueprint. Except as otherwise permitted pursuant to Section 10.4(a) and subject to Section 10.3(b), and as may be required by Applicable Law, Blueprint agrees that it may not publish, present or otherwise disclose data and results of nonclinical studies and clinical trials, or any other Information, with respect to any Compound or Licensed Product without obtaining Alexion's prior written consent.

(c) By Alexion. Alexion may publish, present or otherwise disclose data and results of nonclinical studies (subject to Blueprint's rights under Section 10.4(a)), clinical studies, and other Information related to Compounds and Licensed Products, including in each case Information generated under the Research Plan and any other Information reasonably necessary to support Alexion's Commercialization of Licensed Products, at any time and through any medium or in any forum, in its discretion; provided that, where Blueprint has contributed to the generation of the data and results under the Research Plan to be included in a contemplated Alexion publication in a peer-reviewed journal, Alexion will provide Blueprint with an opportunity to review and provide comments on such publication at least […***…] days prior to the date of intended submission and Alexion will consider any such Blueprint comments in good faith.

(d) By Either Party. Each Party agrees to acknowledge the contributions of the other Party and its employees in any and all publications, presentations and disclosures as scientifically appropriate.

ARTICLE 11

TERM AND TERMINATION

11.1 Term. This Agreement will commence on the Effective Date and, unless earlier terminated pursuant to this Article 11, will expire […***…] (the "**Term**"). Following the end of the Term for any such Licensed Product and in such country by expiration (but not termination), Alexion will have a fully paid-up, royalty-free license under the Blueprint Licensed Technology, to research, develop, manufacture, use, sell, offer to sell and import such Licensed Product in the Field.

11.2 Termination by Alexion.

(a) Voluntary Termination. Alexion will have the right to terminate this Agreement upon […***…] days prior written notice to Blueprint.

(b) Industry Transaction. If, at any time during the Term, Blueprint intends to enter into an Industry Transaction pursuant to Section 13.7, then Blueprint will deliver a written notice to Alexion (such notice, the "**Industry Transaction Notice**") at least […***…] Business Days before closing such Industry Transaction or, if earlier, prior to disclosing an unredacted form of this Agreement pursuant to Section 10.2(f), which Industry Transaction Notice shall include the name of the applicable Drug Company. In addition, if Blueprint closes an Industry Transaction, Blueprint shall so notify Alexion within […***…] Business Days of such closing. Alexion shall have the right to terminate this Agreement in its entirety upon written notice to Blueprint at any time during the period beginning on the date that Alexion receives an Industry Transaction Notice and ending on the earlier of (a) the date that is […***…] days after the date Alexion receives notice of the closing of such Industry Transaction or (b) the date on which Blueprint notifies Alexion that no Industry Transaction will be closed, provided that (1) any such termination by Alexion will be effective only if the Industry Transaction closes and (2) such termination will be effective only immediately before the occurrence of such Industry Transaction closing or upon Blueprint's receipt of such notice from Alexion if after such Industry Transaction closing. Without limiting the foregoing, if an Industry Transaction is structured as a sign and close, Blueprint will provide to Alexion an Industry Transaction Notice promptly after signing and in any event at least […***…] Business Days before closing such Industry Transaction, and Blueprint providing such notice in the case of an Industry Transaction structured as a sign and close will be deemed sufficient to comply in full with the requirements of this Section 11.2(b).

11.3 Termination for Breach or Insolvency.

(a) Termination by Blueprint. Subject to Section 11.3(c), Blueprint will have the right to terminate this Agreement in its entirety upon written notice to Alexion if Alexion materially breaches its obligations under this Agreement and, after receiving written notice from Blueprint identifying such material breach by Alexion in reasonable detail, fails to cure such material breach within […***…] days from the date of such notice (or, if such breach cannot be cured within such […***…] day period, if Blueprint has not commenced and is diligently continuing good faith efforts to cure such breach), or within […***…] days from the date of such notice in the event such material breach is solely based upon Alexion's failure to pay any amounts due Blueprint hereunder. For clarity, Alexion's material failure to meet its diligence obligations set forth in Section 4.5 shall be considered a material breach of this Agreement for purposes of this Section 11.3(a).

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(b) Termination by Alexion. Subject to Section 11.3(c), Alexion will have the right to terminate this Agreement in its entirety upon written notice to Blueprint if Blueprint materially breaches its obligations under this Agreement and, after receiving written notice from Alexion identifying such material breach by Blueprint in reasonable detail of its obligations under this Agreement, fails to cure such material breach within […***…] days from the date of such notice (or, if such breach cannot be cured within such […***…] day period, if Alexion has not commenced and is diligently continuing good faith efforts to cure such breach), or within […***…] days from the date of such notice in the event such material breach is solely based upon Blueprint's failure to pay any amounts due Alexion hereunder.

(c) Disputed Breach. If the alleged breaching Party disputes in good faith the existence or materiality of a breach specified in a notice provided by the other Party in accordance with Section 11.3(a), and such alleged breaching Party provides the other Party notice of such dispute within such […***…] day or […***…] day period, as applicable, then the non-breaching Party will not have the right to terminate this Agreement under Section 11.3(a) or Section 11.3(b) unless and until an adjudicator, in accordance with Article 12, has determined that the alleged breaching Party has materially breached this Agreement and that such Party fails to cure such breach within […***…] days following such adjudicator's decision (except to the extent such breach involves the failure to make a payment when due, which breach must be cured within […***…] days following such adjudicator's decision). It is understood and agreed that during the pendency of such dispute, all of the terms and conditions of this Agreement will remain in effect.

(d) Insolvency. If, at any time during the Term (i) a case is commenced by or against either Party under Title 11, United States Code, as amended, or analogous provisions of Applicable Law outside the United States (the "**Bankruptcy Code**") and, in the event of an involuntary case under the Bankruptcy Code, such case is not dismissed within […***…] days after the commencement thereof, (ii) either Party files for or is subject to the institution of bankruptcy, liquidation or receivership proceedings (other than a case under the Bankruptcy Code), (iii) either Party assigns all or a substantial portion of its assets for the benefit of creditors, (iv) a receiver or custodian is appointed for either Party's business, or (v) a substantial portion of either Party's business is subject to attachment or similar process; then, in any such case ((i), (ii), (iii), (iv) or (v)), the other Party may terminate this Agreement upon written notice to the extent permitted under Applicable Law.

11.4 Termination by Blueprint.

(a) For IP Challenge.

(i) In the event that Alexion or any of its Affiliates or Sublicensees, […***…] (a "**Patent Challenge**"), then at Blueprint's sole election, Blueprint will have the right (A) […***…].

(ii) If, during the Term, […***…].

(iii) Blueprint will not have the right to terminate any of Alexion's or its Affiliates' or Sublicensees' rights under this Agreement under this Section 11.4 for any such Patent Challenge by any Affiliate or Sublicensee of Alexion if such Patent Challenge is dismissed within […***…] days of Blueprint's notice to Alexion under this Section 11.4 and not thereafter continued.

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(b) For Alexion Abandonment. At any time following the conclusion of the Research Term, if Alexion or its Affiliates or Sublicensees […***…], Blueprint will have the right, as its sole and exclusive remedy, to terminate this Agreement in its entirety upon written notice to Alexion specifying in reasonable detail the basis for such claim (such notice, the "**Abandonment Notice**"); provided, that, (a) within […***…] days of receipt of an Abandonment Notice, Alexion will have the right to request a meeting with Blueprint to discuss Blueprint's abandonment claim, (b) following such meeting, if the Parties are unable to reach agreement on whether abandonment under this Section 11.4(b) occurred prior to the Abandonment Notice, either Party may refer the matter for dispute resolution in accordance with Section 12.1, and (c) the termination of this Agreement shall not be effective until an adjudicator has determined that such abandonment has occurred.

11.5 Effects of Termination.

(a) Upon termination of this Agreement by Alexion under Section 11.2(a) or by Blueprint under Sections 11.3(a), 11.4(a)(ii) or 11.4(b), the following will apply (in addition to any other rights and obligations under this Article 11):

(i) Licenses to Alexion. Subject to Section 11.8, all licenses granted in Article 5 to, and all other rights and obligations under this Agreement of, Alexion, its Affiliates and its Sublicensees will terminate.

(ii) License to Blueprint. The license granted under Section 5.2(c) will survive and become perpetual, irrevocable and non-terminable with the following clause deleted therefrom: […***…]

(iii) Termination of Research Term. The remaining Research Term, if any, shall terminate, provided that Alexion will remain responsible for (A) Blueprint's non-FTE expenses that were incurred or irrevocably committed to under the Research Plan up to the date of notice of termination, provided that Blueprint use Diligent Efforts to mitigate such costs to the extent practicable, and (B) Blueprint's FTE expenses for a period of […***…] months following the date of notice of termination for FTE personnel that Blueprint, despite having used Diligent Efforts, is not able to re-allocate from Research Plan activities to alternative projects within such […***…] month period.

(iv) Confidential Information. Except in the case of Blueprint for any Information that is the subject of its license under the […***…] or its surviving license in Section 5.2(c) of this Agreement, each Party will promptly return to the other Party (or as directed by such other Party destroy and certify to such other Party in writing as to such destruction) all of such other Party's Confidential Information provided by or on behalf of such other Party hereunder that is in the possession or control of such Party (or any of its Affiliates, Sublicensees or subcontractors), except that such Party will have the right to retain one (1) copy of intangible Confidential Information of such other Party for legal purposes.

(v) […***…] In the event of a termination of this Agreement by Alexion under […***…], or in the event of termination of this Agreement by Blueprint under Sections […***…],[…***…] or […***…] then […***…] provided, however that (1) […***…]:

[…***…]

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[…***…]

(C) […***…];

(D) to the extent that any payments would be owed by Alexion to any Third Parties (including royalties, milestones and other amounts) under any Third Party agreements that are applicable to […***…]

[…***…]

(F) […***…]

(G) […***…]; and

(H) […***…].

In the event the […***…]

(b) Upon termination of this Agreement by Alexion under Section 11.2(b) or 11.3(b), the following will apply (in addition to any other rights and obligations under this Article 11):

(i) Licenses.

(A) License to Alexion. Subject to Section 11.50, all licenses granted by Blueprint to Alexion pursuant to Article 5 hereunder shall become perpetual, irrevocable and non-terminable, subject to (A) Alexion's continued compliance with its diligence obligations set forth in Section 4.5, and (B) Alexion's continuing obligation to make milestone and royalty payments under Article 6 in the amounts payable as of the effective date of such termination, and any payments owed to Blueprint's licensors under any agreements for in-licensed Blueprint Licensed Technology to which Alexion opted to take a sublicense pursuant to Section 5.5(b), provided that, only in the case of a termination by Alexion pursuant to Section 11.3(b) for material breach, any future milestone payments set forth in Sections 6.2 and 6.3 and the royalty rates set forth in the table in Section 6.4(a) as applied to any future Net Sales will be reduced by […***…]

(B) License to Blueprint. The license granted under Section 5.2(c) will survive and become perpetual, irrevocable and non-terminable.

[…***…]

(iii) Termination of Research Term. Alexion will have the option to terminate the remaining Research Term by giving notice to Blueprint, which termination notice shall provide, at Alexion's option (i) that all of Blueprint's activities under the terminated Research Plan shall immediately cease, or (ii) if requested by Alexion, the Parties shall reasonably cooperate to wind down some or all of any ongoing activities under the Research Plan for a commercially reasonable period of time with Alexion paying Blueprint's FTEs and other costs to perform such wind-down. Upon the giving of such notice, the Research Term shall terminate, Alexion will be free to exercise its rights under Section 5.1(a)(i) but not more, and Section 5.1(a)(ii) will no longer be in effect.

(iv) Confidential Information. Except in the case of Alexion for any Information that is the subject of its continuing licenses pursuant to Section 11.5(b)(i), each Party will promptly return to the other Party (or as directed by such other Party destroy and certify to such other Party in writing as to such destruction) all of such other Party's Confidential Information provided by or on behalf of such other Party hereunder that is in the possession or control of such Party (or any of its Affiliates, Sublicensees or subcontractors), except that such Party will have the right to retain one (1) copy of intangible Confidential Information of such other Party for legal purposes.

(v) Notwithstanding any other provision in this Agreement to the contrary, Alexion, in its sole discretion, may at any time terminate the licenses under Section 5.1(a)(i) by providing Blueprint with written notice of such termination, provided that, if Alexion so terminates the licenses and Alexion's prior termination of this Agreement was made pursuant to Section 11.2(b), then the provisions of Sections 11.5(a)(iv) and 11.5(a)(v) will apply.

(c) Conduct During Termination Notice Period.

(i) Following any notice of termination permitted under this Article 11, other than any termination pursuant to Section 11.2(b), 11.3(a) or 11.4(a)(ii), during any applicable termination notice period (the applicable "**Termination Notice Period**"), each Party will continue to perform all of its obligations under this Agreement, including performing all activities allocated to it pursuant to the Research Plan, then in effect in accordance with the terms and conditions of this Agreement.

(ii) During the applicable Termination Notice Period, neither Party will make any statement to any Person, whether written, verbal, electronic or otherwise, that disparages any Compound or Licensed Product, the work performed by either Party under this Agreement, or the other Party.

11.6 Other Remedies. Termination or expiration of this Agreement for any reason will not release either Party from any liability or obligation that already has accrued prior to such expiration or termination, nor affect the survival of any provision hereof to the extent it is expressly stated to survive such termination. Termination or expiration of this Agreement for any reason will not constitute a waiver or release of, or otherwise be deemed to prejudice or adversely affect, any rights, remedies or claims, whether for damages or otherwise, that a Party may have hereunder or that may arise out of or in connection with such termination or expiration.

11.7 Rights in Bankruptcy. All rights and licenses granted under or pursuant to this Agreement by Blueprint and Alexion are, and will otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of right to "intellectual property" as defined under Section 101 of the U.S. Bankruptcy Code. The Parties agree that each Party, as licensee of certain rights under this Agreement, will retain and may fully exercise all of its rights and elections under the U.S. Bankruptcy Code. The Parties further agree that, in the event of the commencement of a bankruptcy proceeding by or against a Party (such Party, the "**Bankrupt Party**") under the U.S. Bankruptcy Code, the other Party will be entitled to a complete duplicate of (or complete access to, as appropriate) any intellectual property licensed to such other Party and all embodiments of such intellectual property, which, if not already in such other Party's possession, will be promptly delivered to it (a) upon any such commencement of a bankruptcy proceeding upon such other Party's written request therefor, unless the Bankrupt Party elects to continue to perform all of its obligations under this Agreement or (b) if not

delivered under clause (a), following the rejection of this Agreement by the Bankrupt Party upon written request therefor by the other Party. The Parties acknowledge and agree that of the milestones and royalties to be paid pursuant to Article 6, only the royalties contained in Section 6.4(a) will constitute royalties within the meaning of Bankruptcy Code § 365(n) with respect to the licenses of intellectual property hereunder.

11.8 Survival. Termination or expiration of this Agreement will not affect rights or obligations of the Parties under this Agreement that have accrued prior to the date of termination or expiration of this Agreement. Notwithstanding anything to the contrary:

(a) the following provisions will survive and apply after expiration or any termination of this Agreement in its entirety: Article 1, Sections 2.4(a), 6.11, 7.1, and 7.2(b), Article 9, Article 10 (except for Alexion's obligations under Section 10.4(a) in case of Alexion's termination pursuant to Section 11.3(b)), Sections 11.1 (survives expiration only), 11.5, 11.6, 11.7 and 11.8, Article 12 and Article 13 (except for Section 13.7);

(b) the following additional provisions also will survive and apply after termination of this Agreement by Alexion under Section 11.2(b) or 11.3(b): Sections 4.5, 4.6 (only in the case of termination pursuant to Section 11.2(b) and if registration clinical studies are still ongoing at such time, and only for so long as Alexion does not exercise its right to terminate such Section 4.6 pursuant to Section 13.7(e)), 4.7, 5.1, 5.2(a), 5.3(a)(i), 5.4, the remainder of Article 6, and Sections 7.2(f)(i) and 7.4; and

(c) in the case of Alexion's termination under Section 11.2(b) or 11.3(b) and election under Section (iii) to wind-down activities under the Research Plan, the following additional provisions also will survive and apply during such wind-down: the remainder of Article 2, Article 3, and Sections 4.2(c), 4.3, 5.2(b) and 5.3(a)(ii).

In addition, in the case where the foregoing clauses (b) and (c) do not apply, (i) the other applicable provisions of Article 6 will survive expiration or termination of this Agreement in its entirety to the extent required to make final reimbursements, reconciliations or other payments incurred or accrued prior to the date of termination or expiration, and (ii) for any surviving provisions requiring action or decision by the JSC or an Executive Officer, each Party will appoint representatives to act as its JSC members or Executive Officer, as applicable.

All provisions not surviving in accordance with the foregoing will terminate upon expiration or termination of this Agreement and be of no further force and effect.

ARTICLE 12

DISPUTE RESOLUTION

12.1 Disputes. It is the objective of the Parties to establish procedures to facilitate the resolution of disputes arising under this Agreement in an expedient manner by mutual cooperation and without resort to litigation. Except as set forth in Section 3.5, in the event of any disputes, controversies or differences which may arise between the Parties out of or in relation to or in connection with this Agreement (including any alleged failure to perform, or breach, of this Agreement), or any issue relating to the interpretation or application of this Agreement, then upon the request of either Party by written notice to the other, the Parties will meet and discuss in good faith a possible resolution thereof, which

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good faith efforts will include at least one in-person meeting between the Executive Officers of each Party. If the matter is not resolved within […***…] days following the written request for discussions, either Party shall thereafter have the right to pursue any and all other remedies available at law or in equity, subject to this Article 12. For clarity, any disputes, controversies or differences arising from the JSC will be resolved solely in accordance with Section 3.5.

12.2 Governing Law. This Agreement will be governed by and construed under the substantive laws of the State of New York, excluding any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Agreement to the substantive law of another jurisdiction.

12.3 Injunctive Relief; Remedy for Breach of Exclusivity. Nothing in this Article 12 will preclude either Party from seeking equitable relief or interim or provisional relief from a court of competent jurisdiction, including a temporary restraining order, preliminary injunction or other interim equitable relief, concerning a dispute if necessary to protect the interests of such Party. Therefore, in addition to its rights and remedies otherwise available at law, including the recovery of damages for breach of this Agreement, upon an adequate showing of material breach, and without further proof of irreparable harm other than this acknowledgement, such non-breaching Party will be entitled to seek (a) immediate equitable relief, specifically including, but not limited to, both interim and permanent restraining orders and injunctions, and (b) such other and further equitable relief as the court may deem proper under the circumstances. For clarity, nothing in this Section 12.3 will otherwise limit a breaching Party's opportunity to cure a material breach as permitted in accordance with Section 11.3.

12.4 Jurisdiction. For the purposes of this Article 12, the Parties acknowledge their diversity (Alexion having its principal place of business in Bermuda and Blueprint having its principal place of business in the Commonwealth of Massachusetts), and except as provided in Section 12.5, agree to accept the jurisdiction of any United States District Court located in the state of New York and agree not to commence any action, suit or proceeding related thereto except in such courts.

12.5 Patent and Trademark Disputes. Any dispute, controversy or claim relating to the scope, validity, enforceability or infringement of any Patents of either Party or any Marks covering the manufacture, use, importation, offer for sale or sale of any Compounds or Licensed Products will be submitted to a court of competent jurisdiction in the country in which such patent or trademark rights were granted or arose.

ARTICLE 13

MISCELLANEOUS

13.1 Entire Agreement; Amendment. This Agreement, including the Exhibits hereto, set forth the complete, final and exclusive agreement and all the covenants, promises, agreements, warranties, representations, conditions and understandings between the Parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings between the Parties existing as of the Effective Date with respect to the subject matter hereof. In the event of any inconsistency between any plan hereunder (including the Research Plan) and this Agreement, the terms of this Agreement will prevail. There are no covenants, promises, agreements, warranties, representations, conditions or understandings, either oral or written, between the Parties other than as are set forth herein and therein. No subsequent alteration, amendment, change or addition to this Agreement will be binding upon the Parties unless reduced to writing and signed by an authorized officer of each Party.

13.2 Force Majeure. Both Parties will be excused from the performance of their obligations under this Agreement to the extent that such performance is prevented or delayed by force majeure and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse will be continued so long as the condition constituting force majeure continues and the nonperforming Party takes reasonable efforts to remove the condition; provided, however, that if the condition constituting force majeure continues for more than […***…] consecutive days the other Party will have the option to terminate this Agreement immediately upon written notice. For purposes of this Agreement, force majeure will mean conditions beyond the control of the Parties, including an act of God, war, civil commotion, terrorist act, labor strike or lock-out, epidemic, failure or default of public utilities or common carriers, destruction of production facilities or materials by fire, earthquake, storm or like catastrophe, and failure of plant or machinery (provided that such failure could not have been prevented by the exercise of skill, diligence, and prudence that would be reasonably and ordinarily expected from a skilled and experienced person engaged in the same type of undertaking under the same or similar circumstances). Notwithstanding the foregoing, a Party will not be excused from making payments owed hereunder because of a force majeure affecting such Party.

13.3 Notices. Any notice required or permitted to be given under this Agreement will be in writing, will specifically refer to this Agreement, and will be addressed to the appropriate Party at the address specified below or such other address as may be specified by such Party in writing in accordance with this Section 13.3, and will be deemed to have been given for all purposes (a) when received, if hand-delivered or sent by a reputable international expedited delivery service, or (b) […***…] Business Days after mailing, if mailed by first class certified or registered mail, postage prepaid, return receipt requested. This Section 13.3 is not intended to govern the day-to-day business communications necessary between the Parties in performing their obligations under the terms of this Agreement.

If to Blueprint:	Blueprint Medicines Corporation 215 First Street Cambridge, MA 02142 Attention: Vice President, Legal Affairs
With a copy to (which will not constitute notice):	Goodwin Procter LLP Exchange Place 53 State Street Boston, MA 02109 Attention: Kingsley L. Taft, Esq.
If to Alexion:	Alexion Pharma Holding 22 Victoria Street Hamilton HM EX Bermuda Attention: Secretary Facsimile: 441-298-3439
With a copy to (which will not constitute notice):	Alexion Pharmaceuticals, Inc. 352 Knotter Drive Cheshire, CT 06410 *Attention*: Chief Legal Officer Facsimile: 203-271-8198

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13.4 No Strict Construction; Headings. This Agreement has been prepared jointly and will not be strictly construed against either Party. Ambiguities, if any, in this Agreement will not be construed against any Party, irrespective of which Party may be deemed to have authored the ambiguous provision. The headings of each Article and Section in this Agreement have been inserted for convenience of reference only and are not intended to limit or expand on the meaning of the language contained in the particular Article or Section.

13.5 Interpretation. Whenever any provision of this Agreement uses the term “including” (or “includes”), such term will be deemed to mean “including without limitation” (or “includes without limitations”). “Herein,” “hereby,” “hereunder,” “hereof” and other equivalent words refer to this Agreement as an entirety and not solely to the particular portion of this Agreement in which any such word is used. The term “or” means “and/or” hereunder. All definitions set forth herein will be deemed applicable whether the words defined are used herein in the singular or the plural. Unless otherwise provided, all references to Sections and Exhibits in this Agreement are to Sections and Exhibits of this Agreement. References to any Sections include Sections and subsections that are part of the related Section (e.g., a section numbered “Section 3.2” would be part of “Section 3”, and references to “Section 3.2” would also refer to material contained in the subsection described as “Section 3.2(a)”). Unless otherwise stated, dollar amounts set forth in this Agreement are U.S. dollars.

13.6 Assignment. Neither Party may assign or transfer this Agreement or any rights or obligations hereunder without the prior written consent of the other, except that a Party may make such an assignment without the other Party’s consent to an Affiliate or to a successor to substantially all of the business to which this Agreement relates, whether in a merger, sale of stock, sale of assets, reorganization or other transaction. Any permitted successor or assignee of rights or obligations hereunder will, in a writing to the other Party, expressly assume performance of such rights or obligations (and in any event, any Party assigning this Agreement to an Affiliate will remain bound by the terms and conditions hereof). Any permitted assignment will be binding on the successors of the assigning Party. Any assignment or attempted assignment by either Party in violation of the terms of this Section 13.6 will be null, void and of no legal effect.

13.7 Industry Transaction. Notwithstanding anything to the contrary in this Agreement, if Blueprint undergoes an Industry Transaction, the following provisions will apply from and after the consummation of such Industry Transaction:

(a) all Blueprint IP will continue to be Blueprint Licensed Technology;

(b) in addition to the Blueprint IP, all Blueprint Licensed Technology Controlled by Blueprint immediately prior to such Industry Transaction will continue to be Blueprint Licensed Technology (including any Patent that claims priority, directly or indirectly, to any Patent included within the

Blueprint Licensed Technology Controlled by Blueprint immediately prior to such Industry Transaction, no matter when such Patent is filed or issued) for purposes of this Agreement;

(c) other than the Blueprint IP, and the Blueprint Licensed Technology covered under Section 13.7(b), no Information, materials (including small molecule compounds and compound libraries), Patents or other intellectual property rights Controlled by the Third Party who is a party to such Industry Transaction (the "**Acquirer**") or any of the Acquirer's Affiliates (collectively, the "**Acquirer Technology**"), whether prior to or after the consummation of such Industry Transaction, will be Controlled by Blueprint or its Affiliates for purposes of this Agreement, unless such Acquirer Technology

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is actually used by Blueprint or its Affiliates or subcontractors to perform any activities under the Research Plan, after the consummation of such Industry Transaction, or is developed by the material use of any Blueprint Licensed Technology referenced in Section 13.7(a) or Section 13.7 (b);

(d) any activities of the Acquirer or its Affiliates that would otherwise constitute a breach of Section 5.6 (the "**Competing Activities**") will not be considered a breach of Section 5.6 so long as the Acquirer does not use any material Blueprint Licensed Technology or any data or Information generated under the Research Plan for such Competing Activities and segregates such Competing Activities from the activities performed under the Research Program, including by (i) using separate personnel to perform the Competing Activities and the activities contemplated under the Research Program, including its governance, and (ii) ensuring that no personnel involved in the Competing Activities have access to Confidential Information relating to the Research Plan, Development, Manufacture or Commercialization of Compounds or Licensed Products (other than senior management and financial people need to make program decisions and need to include in financials); and

(e) Alexion shall have the right upon […***…] days' notice following any such Industry Transaction, to elect that any one or more of the following shall be deleted, in whole or in part, from this Agreement: Alexion's obligations under Section 4.6 and Section 10.3(b) (with respect to Alexion's prior written notice to Blueprint of a press release or similar public announcement).

For the purposes of this Agreement, (A) "**Industry Transaction**" of Blueprint means that (1) Blueprint will have become an Affiliate of an entity that is a Drug Company (as defined below), or (2) any sale, license or other transfer to a Drug Company (in one transaction or a series of related transactions) of all or substantially all of Blueprint's assets or that portion of Blueprint's business pertaining to the subject matter of this Agreement, and (B) "**Drug Company**" means any entity that conducts research and development in the biotechnology or pharmaceutical industry or develops or commercializes therapeutics or diagnostics.

13.8 Performance by Affiliates. Subject to the limitations of Section 5.3, each Party may discharge any obligations and exercise any right hereunder through any of its Affiliates. Each Party hereby guarantees the performance by its Affiliates of such Party's obligations under this Agreement, and will cause its Affiliates to comply with the provisions of this Agreement in connection with such performance. Any breach by a Party's Affiliate of any of such Party's obligations under this Agreement will be deemed a breach by such Party, and the other Party may proceed directly against such Party without any obligation to first proceed against such Party's Affiliate.

13.9 Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

13.10 Compliance with Applicable Law. Each Party will comply with Applicable Law in the course of performing its obligations or exercising its rights pursuant to this Agreement.

13.11 Severability. If any one or more of the provisions of this Agreement is held to be invalid or unenforceable by an arbitrator or by any court of competent jurisdiction from which no appeal can be or is taken, the provision will be considered severed from this Agreement and will not serve to invalidate any remaining provisions hereof. The Parties will make a good faith effort to replace any invalid or unenforceable provision with a valid and enforceable one such that the objectives contemplated by the Parties when entering into this Agreement may be realized.

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13.12 No Waiver. Any delay in enforcing a Party's rights under this Agreement or any waiver as to a particular default or other matter will not constitute a waiver of such Party's rights to the future enforcement of its rights under this Agreement, except with respect to an express written and signed waiver relating to a particular matter for a particular period of time.

13.13 Independent Contractors. Each Party will act solely as an independent contractor, and nothing in this Agreement will be construed to give either Party the power or authority to act for, bind, or commit the other Party in any way. Nothing herein will be construed to create the relationship of partners, principal and agent, or joint-venture partners between the Parties.

13.14 Counterparts. This Agreement may be executed in one (1) or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals by their duly authorized officers as of the Effective Date.

BLUEPRINT MEDICINES CORPORATION		**ALEXION PHARMA HOLDING**	
By:	/s/ Jeffrey Albers	By:	/s/ Kirk Caza
Name:	Jeffrey Albers	Name:	Kirk Caza
Title:	CEO	Title:	Director

Signature Page to Research, Development & Commercialization Agreement

SCHEDULE 1.72

KEY PERSONNEL

[…***…]

EXHIBIT A

COMPOUNDS

(Listed by […***…])

External Codes	**[…***…]**	**[…***…]**	**[…***…]**
[…***…]	[…***…]	[…***…]	[…***…]
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EXHIBIT B

RESEARCH PLAN

[…***…] **Joint Research Plan**
Blueprint Medicines with Alexion

[…***…]

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Appendix 2: Blueprint subcontractors and consultants

Subcontractor/Consultant Name	Comments
[…***…]	[…***…]
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EXHIBIT C

GOVERNANCE PARTICIPANTS

1. Project Leaders

[…***…]

2. Alliance Managers

[…***…]

3. JSC

Blueprint

[…***…]

Alexion

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4. JPT

Blueprint

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Alexion

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EXHIBIT D

ASSAYS

*****Text Omitted and Filed Separately with the Securities and Exchange Commission Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 230.406**

EXHIBIT D-1

[…***…]

*****Text Omitted and Filed Separately with the Securities and Exchange Commission Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 230.406**

EXHIBIT D-2

[…***…]

*****Text Omitted and Filed Separately with the Securities and Exchange Commission Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 230.406**

EXHIBIT D-3

Assays for Determining Selectivity Score

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EXHIBIT E

INSURANCE

EXHIBIT E

INSURANCE

E-1 BLUEPRINT INSURANCE

Blueprint will maintain:

1. Commercial General Liability

Coverage on a Commercial General Liability Occurrence Coverage Form (or equivalent), including coverage for completed operations and contractual liability with limits of not less than […***…] and […***…].

2. Workers' Compensation

Coverage on a Workers' Compensation Form (or equivalent), covering all employees who are to provide services in connection with this Agreement with limits of not less than the following:

Bodily Injury by Accident	[…***…]
Bodily Injury by Disease	[…***…]
Bodily Injury by Disease	[…***…]

3. Management Liability

[…***…]

E-2 ALEXION INSURANCE

1. Alexion will maintain at least the above types and levels of insurance for commercial general liability, workers' compensation and management liability.

2. Further, Alexion will maintain:

   a. for Phase I and Phase II clinical trials, coverage for product liability insurance, including clinical trial liability, with limits of not less than […***…] and […***…]; and

   b. for Phase III clinical trials and during Commercialization, coverage for product liability insurance, including clinical trial liability, with limits of not less than […***…] and […***…].

3. Alexion may self-insure for the above types of insurance provided it maintains adequate reserves at the same limits.

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EXHIBIT F

PRESS RELEASE

Blueprint Medicines Announces Strategic Collaboration with Alexion to Advance Kinase Drug Candidates in Rare Genetic Disease

- *Collaboration combines Blueprint Medicines' kinase-focused drug discovery platform with Alexion's experience developing and commercializing therapies for severe and life-threatening disorders –*

- *Blueprint Medicines to receive $15 million upfront payment, research reimbursement, milestone payments and royalties -*

CAMBRIDGE, Mass., March 3, 2015 — Blueprint Medicines today announced a strategic collaboration with Alexion to discover, develop and commercialize novel drug candidates for an undisclosed activated kinase target, which is the cause of a rare genetic disease. Blueprint Medicines will apply its kinase-focused drug discovery platform to identify and optimize drug candidates and will conduct all research activities prior to the filing of an Investigational New Drug (IND) application with the Food and Drug Administration. Alexion will be responsible for the development and commercialization of these Blueprint Medicines' drug candidates under the collaboration.

"Our kinase-focused platform, which integrates a novel target discovery engine and a proprietary compound library, enables us to craft highly selective kinase drugs for genomic drivers of disease across many therapeutic areas. Alexion is the ideal partner for our rare genetic disease program with their successful track record developing and commercializing therapies for severe and life-threatening disorders," said Jeffrey Albers, Chief Executive Officer of Blueprint Medicines. "Working with Alexion on this target will allow the team at Blueprint Medicines to focus on our primary strategic area of oncology, while we leverage our platform in additional therapeutic areas."

Under the terms of the agreement, Blueprint Medicines will receive an upfront payment of $15 million and will be reimbursed for all research expenses. Blueprint Medicines is eligible to receive over $250 million in payments upon the successful achievement of pre-specified preclinical, clinical, regulatory and commercial milestones. In addition, Blueprint Medicines will be eligible to receive royalty payments following the commercialization of the product.

"Blueprint Medicines' unique discovery platform enables it to create drug candidates for extremely challenging kinase targets. Even in these early stages, Blueprint Medicines' compounds show impressive selectivity toward the mutant kinase, thereby sparing other kinases and delivering drug to the specified target," said Martin Mackay, Ph.D., Executive Vice President, Global Head of Research and Development at Alexion. "We look forward to partnering with the talented Blueprint Medicines' team to advance a highly innovative therapy for patients suffering from a devastating rare genetic disease."

About Blueprint Medicines

Blueprint Medicines makes kinase drugs to treat patients with genomically defined diseases. Led by a team of industry innovators, Blueprint Medicines integrates a novel target discovery engine and a proprietary compound library to understand the blueprint of cancer and craft highly selective therapies.

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This empowers the Blueprint Medicines team to develop patient-defined medicines aimed at eradicating cancer. Blueprint Medicines is privately held and raised $115 million in financing since its 2011 inception.

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Stern Investor Relations, Inc.
212-362-1200
beth@sternir.com

Media Relations:
David Polk
Chandler Chicco Companies
310-309-1029
dpolk@chandlerchiccocompanies.com

EXHIBIT G

REDACTED AGREEMENT

BLUEPRINT MEDICINES CORPORATION
FORM OF DIRECTOR INDEMNIFICATION AGREEMENT

This Indemnification Agreement ("Agreement") is made as of by and between Blueprint Medicines Corporation, a Delaware corporation (the "Company"), and ("Indemnitee").

RECITALS

WHEREAS, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company;

WHEREAS, in order to induce Indemnitee to provide or continue to provide services to the Company, the Company wishes to provide for the indemnification of, and advancement of expenses to, Indemnitee to the maximum extent permitted by law;

WHEREAS, the Fourth Amended and Restated Certificate of Incorporation (the "Charter") and the Amended and Restated Bylaws (the "Bylaws") of the Company require indemnification of the officers and directors of the Company, and Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware (the "DGCL");

WHEREAS, the Charter, the Bylaws and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between the Company and members of the board of directors, officers and other persons with respect to indemnification;

WHEREAS, the Board of Directors of the Company (the "Board") has determined that the increased difficulty in attracting and retaining highly qualified persons such as Indemnitee is detrimental to the best interests of the Company's stockholders;

WHEREAS, it is reasonable, prudent and necessary for the Company contractually to obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law, regardless of any amendment or revocation of the Charter or the Bylaws, so that they will serve or continue to serve the Company free from undue concern that they will not be so indemnified;

WHEREAS, this Agreement is a supplement to and in furtherance of the indemnification provided in the Charter, the Bylaws and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder; and

WHEREAS, Indemnitee may have certain rights to indemnification and/or insurance, including as provided by **[Name of Fund/Sponsor]**, which are to be secondary to the primary obligation of the Company to indemnify Indemnitee as provided in this Agreement, with the Company's acknowledgment and agreement to the foregoing being a material condition to Indemnitee's willingness to serve or continue to serve on the Board.

NOW, THEREFORE, in consideration of the premises and the covenants contained herein, the Company and Indemnitee do hereby covenant and agree as follows:

Section 1. Services to the Company. Indemnitee agrees to serve as a director of the Company. Indemnitee may at any time and for any reason resign from such position (subject to any other contractual obligation or any obligation imposed by law), in which event the Company shall have no obligation under this Agreement to continue Indemnitee in such position. This Agreement shall not be deemed an employment contract between the Company (or any of its subsidiaries or any Enterprise) and Indemnitee.

Section 2. Definitions.

As used in this Agreement:

(a) "Change in Control" shall mean:

(i) the date any "person," as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Act") (other than the Company, any of its subsidiaries, or any trustee, fiduciary or other person or entity holding securities under any employee benefit plan or trust of the Company or any of its subsidiaries), together with all "affiliates" and "associates" (as such terms are defined in Rule 12b-2 under the Act) of such person, becomes the "beneficial owner" (as such term is defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Company representing 50 percent or more of the combined voting power of the Company's then outstanding securities having the right to vote in an election of the Board ("Voting Securities") (in such case other than as a result of an acquisition of securities directly from the Company); or

(ii) the date a majority of the members of the Board is replaced during any 12-month period by directors whose appointment or election is not endorsed by a majority of the members of the Board before the date of the appointment or election; or

(iii) the date of consummation of (A) any consolidation or merger of the Company where the stockholders of the Company, immediately prior to the consolidation or merger, would not, immediately after the consolidation or merger, beneficially own (as such term is defined in Rule 13d-3 under the Act), directly or indirectly, shares representing in the aggregate more than 50 percent of the voting shares of the Company issuing cash or securities in the consolidation or merger (or of its ultimate parent corporation, if any), or (B) any sale or other transfer (in one transaction or a series of transactions contemplated or arranged by any party as a single plan) of all or substantially all of the assets of the Company.

Notwithstanding the foregoing, a "Change in Control" will not be deemed to have occurred for purposes of the foregoing clause (i) solely as the result of an acquisition of securities by the Company which, by reducing the number of shares of Voting Securities

outstanding, increases the proportionate number of Voting Securities beneficially owned by any person to 50 percent or more of the combined voting power of all of the then outstanding Voting Securities; provided, however, that if any person referred to in this sentence will thereafter become the beneficial owner of any additional shares of Voting Securities (other than pursuant to a stock split, stock dividend, or similar transaction or as a result of an acquisition of securities directly from the Company) and immediately thereafter beneficially owns 50 percent or more of the combined voting power of all of the then outstanding Voting Securities, then a "Change in Control" will be deemed to have occurred for purposes of the foregoing clause (i).

(b) "Corporate Status" describes the status of a person as a current or former director of the Company or current or former director, manager, partner, officer, employee, agent or trustee of any other Enterprise which such person is or was serving at the request of the Company.

(c) "Enforcement Expenses" shall include all reasonable attorneys' fees, court costs, transcript costs, fees of experts, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and all other out-of-pocket disbursements or expenses of the types customarily incurred in connection with an action to enforce indemnification or advancement rights, or an appeal from such action. Expenses, however, shall not include fees, salaries, wages or benefits owed to Indemnitee.

(d) "Enterprise" shall mean any corporation (other than the Company), partnership, joint venture, trust, employee benefit plan, limited liability company, or other legal entity of which Indemnitee is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee.

(e) "Expenses" shall include all reasonable attorneys' fees, court costs, transcript costs, fees of experts, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and all other out-of-pocket disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, a Proceeding or an appeal resulting from a Proceeding. Expenses, however, shall not include amounts paid in settlement by Indemnitee, the amount of judgments or fines against Indemnitee or fees, salaries, wages or benefits owed to Indemnitee.

(f) "Independent Counsel" means a law firm, or a partner (or, if applicable, member or shareholder) of such a law firm, that is experienced in matters of Delaware corporation law and neither presently is, nor in the past five (5) years has been, retained to represent: (i) the Company, any subsidiary of the Company, any Enterprise or Indemnitee in any matter material to any such party; or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. The Company agrees to pay the reasonable fees and expenses of the Independent Counsel referred to above and to fully

indemnify such counsel against any and all expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(g) The term "Proceeding" shall include any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, whether brought in the right of the Company or otherwise and whether of a civil, criminal, administrative, regulatory or investigative nature, and whether formal or informal, in which Indemnitee was, is or will be involved as a party or otherwise by reason of the fact that Indemnitee is or was a director of the Company or is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any Enterprise or by reason of any action taken by Indemnitee or of any action taken on his or her part while acting as a director of the Company or while serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any Enterprise, in each case whether or not serving in such capacity at the time any liability or expense is incurred for which indemnification, reimbursement or advancement of expenses can be provided under this Agreement; provided, however, that the term "Proceeding" shall not include any action, suit or arbitration, or part thereof, initiated by Indemnitee to enforce Indemnitee's rights under this Agreement as provided for in Section 12(a) of this Agreement.

Section 3. Indemnity in Third-Party Proceedings. The Company shall indemnify Indemnitee to the extent set forth in this Section 3 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding, other than a Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 3, Indemnitee shall be indemnified against all Expenses, judgments, fines, penalties, excise taxes, and amounts paid in settlement actually and reasonably incurred by Indemnitee or on his or her behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company and, in the case of a criminal proceeding, had no reasonable cause to believe that his or her conduct was unlawful.

Section 4. Indemnity in Proceedings by or in the Right of the Company. The Company shall indemnify Indemnitee to the extent set forth in this Section 4 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 4, Indemnitee shall be indemnified against all Expenses actually and reasonably incurred by Indemnitee or on his or her behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company. No indemnification for Expenses shall be made under this Section 4 in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudged by a court to be liable to the Company, unless and only to the extent that the Delaware Court of Chancery (the "Delaware Court") shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification for such expenses as the Delaware Court shall deem proper.

Section 5. Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provisions of this Agreement and except as provided in Section 7, to the extent that Indemnitee is a party to or a participant in any Proceeding and is successful in such Proceeding or in defense of any claim, issue or matter therein, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or her in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful as to one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on his or her behalf in connection with each successfully resolved claim, issue or matter. For purposes of this Section and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

Section 6. Reimbursement for Expenses of a Witness or in Response to a Subpoena. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee, by reason of his or her Corporate Status, (i) is a witness in any Proceeding to which Indemnitee is not a party and is not threatened to be

made a party or (ii) receives a subpoena with respect to any Proceeding to which Indemnitee is not a party and is not threatened to be made a party, the Company shall reimburse Indemnitee for all Expenses actually and reasonably incurred by him or her or on his or her behalf in connection therewith.

Section 7. Exclusions. Notwithstanding any provision in this Agreement to the contrary, the Company shall not be obligated under this Agreement:

(a) to indemnify for amounts otherwise indemnifiable hereunder (or for which advancement is provided hereunder) if and to the extent that Indemnitee has otherwise actually received such amounts under any insurance policy, contract, agreement or otherwise; provided that the foregoing shall not affect the rights of Indemnitee or the Secondary Indemnitors as set forth in Section 13(c);

(b) to indemnify for an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company within the meaning of Section 16(b) of the Act or similar provisions of state statutory law or common law;

(c) to indemnify with respect to any Proceeding, or part thereof, brought by Indemnitee against the Company, any legal entity which it controls, any director or officer thereof or any third party, unless (i) the Board has consented to the initiation of such Proceeding or part thereof and (ii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law; provided, however, that this Section 7(d) shall not apply to (A) counterclaims or affirmative defenses asserted by Indemnitee in an action brought against Indemnitee or (B) any action brought by Indemnitee for indemnification or advancement from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company in the suit for which indemnification or advancement is being sought as described in Section 12; or

(e) to provide any indemnification or advancement of expenses that is prohibited by applicable law (as such law exists at the time payment would otherwise be required pursuant to this Agreement).

Section 8. Advancement of Expenses. Subject to Section 9(b), the Company shall advance, to the extent not prohibited by law, the Expenses incurred by Indemnitee in connection with any Proceeding, and such advancement shall be made within thirty (30) days after the receipt by the Company of a statement or statements requesting such advances (which shall include invoices received by Indemnitee in connection with such Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnitee to waive any privilege accorded by applicable law need not be included with the invoice) from time to time, whether prior to or after final disposition of any Proceeding. Advances shall be unsecured and interest free. Advances shall be made without regard to Indemnitee's ability to repay the expenses and without regard to Indemnitee's ultimate entitlement to indemnification under the other provisions of this Agreement. Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement which shall constitute an undertaking providing that Indemnitee undertakes to the fullest extent required by law to repay the advance if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnitee is not entitled to be indemnified by the Company. The right to advances under this paragraph shall in all events continue until final disposition of any Proceeding, including any appeal therein. Nothing in this Section 8 shall limit Indemnitee's right to advancement pursuant to Section 12(e) of this Agreement.

Section 9. Procedure for Notification and Defense of Claim.

(a) To obtain indemnification under this Agreement, Indemnitee shall submit to the Company a written request therefor specifying the basis for the claim, the amounts for which Indemnitee is seeking payment under this Agreement, and all documentation related thereto as reasonably requested by the Company.

(b) In the event that the Company shall be obligated hereunder to provide indemnification for or make any advancement of Expenses with respect to any Proceeding, the Company shall be entitled to assume the defense of such Proceeding, or any claim, issue or matter therein, with counsel approved by Indemnitee (which approval shall not be unreasonably withheld or delayed) upon the delivery to Indemnitee of written notice of the Company's election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently employed by or on behalf of Indemnitee with respect to the same Proceeding; provided that (i) Indemnitee shall have the right to employ separate counsel in any such Proceeding at Indemnitee's expense and (ii) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of such defense, or (C) the Company shall not continue to retain such counsel to defend such Proceeding, then the

reasonable fees and expenses actually and reasonably incurred by Indemnitee with respect to his or her separate counsel shall be Expenses hereunder.

(c) In the event that the Company does not assume the defense in a Proceeding pursuant to paragraph (b) above, then the Company will be entitled to participate in the Proceeding at its own expense.

(d) The Company shall not be liable to indemnify Indemnitee under this Agreement for any amounts paid in settlement of any Proceeding effected without its prior written consent (which consent shall not be unreasonably withheld or delayed). The Company shall not, without the prior written consent of Indemnitee (which consent shall not be unreasonably withheld or delayed), enter into any settlement which (i) includes an admission of fault of Indemnitee, any non-monetary remedy imposed on Indemnitee or any monetary damages for which Indemnitee is not wholly and actually indemnified hereunder or (ii) with respect to any Proceeding with respect to which Indemnitee may be or is made a party or may be otherwise entitled to seek indemnification hereunder, does not include the full release of Indemnitee from all liability in respect of such Proceeding.

Section 10. Procedure Upon Application for Indemnification.

(a) Upon written request by Indemnitee for indemnification pursuant to Section 9(a), a determination, if such determination is required by applicable law, with respect to Indemnitee's entitlement to indemnification hereunder shall be made in the specific case by one of the following methods: (x) if a Change in Control shall have occurred, by Independent Counsel in a written opinion to the Board; or (y) if a Change in Control shall not have occurred: (i) by a majority vote of the disinterested directors, even though less than a quorum; (ii) by a committee of disinterested directors designated by a majority vote of the disinterested directors, even though less than a quorum; (iii) if there are no disinterested directors or if the disinterested directors so direct, by Independent Counsel

in a written opinion to the Board; or (iv) if so directed by the Board, by the stockholders of the Company. For purposes hereof, disinterested directors are those members of the Board who are not parties to the action, suit or proceeding in respect of which indemnification is sought. In the case that such determination is made by Independent Counsel, a copy of Independent Counsel's written opinion shall be delivered to Indemnitee and, if it is so determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within thirty (30) days after such determination. Indemnitee shall cooperate with the Independent Counsel or the Company, as applicable, in making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such counsel or the Company, upon reasonable advance request, any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination. Any out-of-pocket costs or expenses (including reasonable attorneys' fees and disbursements) actually and reasonably incurred by Indemnitee in so cooperating with the Independent Counsel or the Company shall be borne by the Company (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Company hereby indemnifies and agrees to hold Indemnitee harmless therefrom.

(b) If the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 10(a), the Independent Counsel shall be selected by the Board if a Change in Control shall not have occurred or, if a Change in Control shall have occurred, by Indemnitee. Indemnitee or the Company, as the case may be, may, within ten (10) days after written notice of such selection, deliver to the Company or Indemnitee, as the case may be, a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 2 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or the Delaware Court has determined that such objection is without merit. If, within twenty (20) days after the later of (i) submission by Indemnitee of a written request for indemnification pursuant to Section 9(a), and (ii) the final disposition of the Proceeding, including any appeal therein, no Independent Counsel shall have been selected without objection, either Indemnitee or the Company may petition the Delaware Court for resolution of any objection which shall have been made by Indemnitee or the Company to the selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by the court or by such other person as the court shall designate. The person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 10(a) hereof. Upon the due commencement of any judicial proceeding or arbitration pursuant to Section 12(a) of this Agreement, Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

Section 11. Presumptions and Effect of Certain Proceedings.

(a) To the extent permitted by applicable law, in making a determination with respect to entitlement to indemnification hereunder, it shall be presumed that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 9(a) of this Agreement, and the Company shall have the burden of proof to overcome that presumption in connection with the making of any determination contrary to that presumption. Neither (i) the failure of the Company or of Independent Counsel to have made a determination prior to the commencement of any action pursuant to this Agreement that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor (ii) an actual determination by the Company or by Independent Counsel that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct.

(b) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of guilty, nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal

Proceeding, that Indemnitee had reasonable cause to believe that his or her conduct was unlawful.

(c) The knowledge and/or actions, or failure to act, of any director, manager, partner, officer, employee, agent or trustee of the Company, any subsidiary of the Company, or any Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

Section 12. Remedies of Indemnitee.

(a) Subject to Section 12(f), in the event that (i) a determination is made pursuant to Section 10 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 8 of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 10(a) of this Agreement within sixty (60) days after receipt by the Company of the request for indemnification for which a determination is to be made other than by Independent Counsel, (iv) payment of indemnification or reimbursement of expenses is not made pursuant to Section 5 or 6 or the last sentence of Section 10(a) of this Agreement within thirty (30) days after receipt by the Company of a written request therefor (which shall include any invoices received by Indemnitee but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnitee to waive any privilege accorded by applicable law need not be included with the invoice) or (v) payment of indemnification pursuant to Section 3 or 4 of this Agreement is not made within thirty (30) days after a determination has been made that Indemnitee is entitled to indemnification, Indemnitee shall be entitled to an adjudication by the Delaware Court of his or her entitlement to such indemnification or advancement. Alternatively, Indemnitee, at his or her option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration within 180 days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 12(a); provided, however, that the foregoing time limitation shall not apply in respect of a proceeding brought by Indemnitee to enforce his or her rights under Section 5 of this Agreement. The Company shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration.

(b) In the event that a determination shall have been made pursuant to Section 10(a) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 12 shall be conducted in all respects as a de novo trial, or arbitration, on the merits and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced pursuant to this Section 12, the Company shall have the burden of proving Indemnitee is not entitled to indemnification or advancement, as the case may be.

(c) If a determination shall have been made pursuant to Section 10(a) of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 12, absent (i) a misstatement by

Indemnitee of a material fact, or an omission of a material fact

necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) The Company shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 12 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Company is bound by all the provisions of this Agreement.

(e) The Company shall indemnify Indemnitee to the fullest extent permitted by law against any and all Enforcement Expenses and, if requested by Indemnitee, shall (within thirty (30) days after receipt by the Company of a written request therefor) advance, to the extent not prohibited by law, such Enforcement Expenses to Indemnitee, which are incurred by Indemnitee in connection with any action brought by Indemnitee for indemnification or advancement from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company in the suit for which indemnification or advancement is being sought. Such written request for advancement shall include invoices received by Indemnitee in connection with such Enforcement Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnitee to waive any privilege accorded by applicable law need not be included with the invoice.

(f) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification under this Agreement shall be required to be made prior to the final disposition of the Proceeding, including any appeal therein.

Section 13. Non-exclusivity; Survival of Rights; Insurance; Primacy of Indemnification; Subrogation.

(a) The rights of indemnification and to receive advancement as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Charter, the Bylaws, any agreement, a vote of stockholders or a resolution of directors, or otherwise. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his or her Corporate Status prior to such amendment, alteration or repeal. To the extent that a change in Delaware law, whether by statute or judicial decision, permits greater indemnification or advancement than would be afforded currently under the Charter, the Bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, managers, partners, officers, employees, agents or trustees of the Company or of any other Enterprise, Indemnitee shall be covered by such policy

or policies in accordance with its or their terms to the maximum extent of the coverage available for any such director, manager, partner, officer, employee, agent or trustee under such policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(c) The Company hereby acknowledges that Indemnitee may have certain rights to indemnification, advancement of expenses and/or insurance provided by third parties (collectively, the "Secondary Indemnitors"), including as provided by **[Name of Fund/Sponsor]** and certain of **[its][their]** affiliates. The Company hereby agrees (i) that it is the indemnitor of first resort (*i.e.*, its obligations to Indemnitee are primary and any obligation of the Secondary Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by Indemnitee are secondary), (ii) that it shall be required to advance the full amount of expenses incurred by Indemnitee and shall be liable for the full amount of all Expenses, judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the terms of this Agreement and the Charter and/or Bylaws (or any other agreement between the Company and Indemnitee), without regard to any rights Indemnitee may have against the Secondary Indemnitors, and (iii) that it irrevocably waives, relinquishes and releases the Secondary Indemnitors from any and all claims against the Secondary Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Secondary Indemnitors on behalf of Indemnitee with respect to any claim for which Indemnitee has sought indemnification from the Company shall affect the foregoing and the Secondary Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company. The Company and Indemnitee agree that the Secondary Indemnitors are express third party beneficiaries of the terms of this Section 13(c). At the request of Indemnitee, the Company shall acknowledge in writing its obligations under this Section 13(c) to any Secondary Indemnitors.

(d) Except as provided in paragraph (c) above, in the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee (other than against the Secondary Indemnitors), who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

(e) Except as provided in paragraph (c) above, the Company's obligation to provide indemnification or advancement hereunder to Indemnitee who is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any other Enterprise shall be reduced by any amount Indemnitee has actually received as indemnification or advancement from such other Enterprise.

Section 14. Duration of Agreement. This Agreement shall continue until and terminate upon the later of: (a) ten (10) years after the date that Indemnitee shall have ceased to

serve as a director of the Company or (b) one (1) year after the final termination of any Proceeding, including any appeal, then pending in respect of which Indemnitee is granted rights of indemnification or advancement hereunder and of any proceeding commenced by Indemnitee pursuant to Section 12 of this Agreement relating thereto. This Agreement shall be binding upon the Company and its successors and assigns and shall inure to the benefit of Indemnitee and his or her heirs, executors and administrators. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

Section 15. Severability. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and shall remain enforceable to the fullest extent permitted by law; (b) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and (c) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

Section 16. Enforcement.

(a) The Company expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to serve or continue to serve as a director of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as a director of the Company.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; provided, however, that this Agreement is a supplement to and in furtherance of the Charter, the Bylaws and applicable law, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

Section 17. Modification and Waiver. No supplement, modification or amendment, or waiver of any provision, of this Agreement shall be binding unless executed in writing by the parties thereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement nor shall any waiver constitute a continuing waiver. No supplement, modification or amendment of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee prior to such supplement, modification or amendment.

Section 18. Notice by Indemnitee. Indemnitee agrees promptly to notify the Company in writing upon being served with any summons, citation, subpoena, complaint, indictment, information or other document relating to any Proceeding or matter which may be subject to indemnification, reimbursement or advancement as provided hereunder. The failure of Indemnitee to so notify the Company shall not relieve the Company of any obligation which it may have to Indemnitee under this Agreement or otherwise.

Section 19. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given if (i) delivered by hand and receipted for by the party to whom said notice or other communication shall have been directed, (ii) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed, (iii) mailed by reputable overnight courier and receipted for by the party to whom said notice or other communication shall have been directed or (iv) sent by facsimile transmission, with receipt of oral confirmation that such transmission has been received:

(a) If to Indemnitee, at such address as Indemnitee shall provide to the Company.

(b) If to the Company to:

Blueprint Medicines Corporation
215 First Street
Cambridge, Massachusetts 02142
Attention: Chief Executive Officer

or to any other address as may have been furnished to Indemnitee by the Company.

Section 20. Contribution. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any Proceeding in such proportion as is deemed fair and reasonable in light of all of the circumstances in order to reflect (i) the relative benefits received by the Company and Indemnitee in connection with the event(s) and/or transaction(s) giving rise to such Proceeding; and/or (ii) the relative fault of the Company (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transactions.

Section 21. Internal Revenue Code Section 409A. The Company intends for this Agreement to comply with the Indemnification exception under Section 1.409A-1(b)(10) of the regulations promulgated under the Internal Revenue Code of 1986, as amended (the "Code"), which provides that indemnification of, or the purchase of an insurance policy providing for payments of, all or part of the expenses incurred or damages paid or payable by Indemnitee with respect to a bona fide claim against Indemnitee or the Company do not provide for a deferral of compensation, subject to Section 409A of the Code, where such claim is based on actions or

failures to act by Indemnitee in his or her capacity as a service provider of the Company. The parties intend that this Agreement be interpreted and construed with such intent.

Section 22. Applicable Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. Except with respect to any arbitration commenced by Indemnitee pursuant to Section 12(a) of this Agreement, the Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court, and not in any other state or federal court in the United States of America or any court in any other country, (ii) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) consent to service of process at the address set forth in Section 19 of this Agreement with the same legal force and validity as if served upon such party personally within the State of Delaware, (iv) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court, and (v) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

Section 23. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

Section 24. Identical Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed as of the day and year first above written.

BLUEPRINT MEDICINES CORPORATION

By: _____
Name:
Title:

_____
[Name of Indemnitee]

[Signature Page to Director Indemnification Agreement]

Exhibit 10.12

BLUEPRINT MEDICINES CORPORATION
FORM OF OFFICER INDEMNIFICATION AGREEMENT

This Indemnification Agreement ("Agreement") is made as of by and between Blueprint Medicines Corporation, a Delaware corporation (the "Company"), and ("Indemnitee").

RECITALS

WHEREAS, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company;

WHEREAS, in order to induce Indemnitee to continue to provide services to the Company, the Company wishes to provide for the indemnification of, and advancement of expenses to, Indemnitee to the maximum extent permitted by law;

WHEREAS, the Fourth Amended and Restated Certificate of Incorporation (the "Charter") and the Amended and Restated Bylaws (the "Bylaws") of the Company require indemnification of the officers and directors of the Company, and Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware (the "DGCL");

WHEREAS, the Charter, the Bylaws and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between the Company and members of the board of directors, officers and other persons with respect to indemnification;

WHEREAS, the Board of Directors of the Company (the "Board") has determined that the increased difficulty in attracting and retaining highly qualified persons such as Indemnitee is detrimental to the best interests of the Company's stockholders;

WHEREAS, it is reasonable and prudent for the Company contractually to obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law, regardless of any amendment or revocation of the Charter or the Bylaws, so that they will serve or continue to serve the Company free from undue concern that they will not be so indemnified; and

WHEREAS, this Agreement is a supplement to and in furtherance of the indemnification provided in the Charter, the Bylaws and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder;

NOW, THEREFORE, in consideration of the premises and the covenants contained herein, the Company and Indemnitee do hereby covenant and agree as follows:

Section 1. Services to the Company. Indemnitee agrees to serve as an officer of the Company. Indemnitee may at any time and for any reason resign from such position (subject to any other contractual obligation or any obligation imposed by law), in which event the Company

shall have no obligation under this Agreement to continue Indemnitee in such position. This Agreement shall not be deemed an employment contract between the Company (or any of its subsidiaries or any Enterprise) and Indemnitee.

Section 2. Definitions.

As used in this Agreement:

(a) "Corporate Status" describes the status of a person as a current or former officer of the Company or current or former director, manager, partner, officer, employee, agent or trustee of any other Enterprise which such person is or was serving at the request of the Company.

(b) "Enforcement Expenses" shall include all reasonable attorneys' fees, court costs, transcript costs, fees of experts, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and all other out-of-pocket disbursements or expenses of the types customarily incurred in connection with an action to enforce indemnification or advancement rights, or an appeal from such action. Expenses, however, shall not include fees, salaries, wages or benefits owed to Indemnitee.

(c) "Enterprise" shall mean any corporation (other than the Company), partnership, joint venture, trust, employee benefit plan, limited liability company, or other legal entity of which Indemnitee is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee.

(d) "Expenses" shall include all reasonable attorneys' fees, court costs, transcript costs, fees of experts, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and all other out-of-pocket disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, a Proceeding or an appeal resulting from a Proceeding. Expenses, however, shall not include amounts paid in settlement by Indemnitee, the amount of judgments or fines against Indemnitee or fees, salaries, wages or benefits owed to Indemnitee.

(e) "Independent Counsel" means a law firm, or a partner (or, if applicable, member or shareholder) of such a law firm, that is experienced in matters of Delaware corporation law and neither presently is, nor in the past five (5) years has been, retained to represent: (i) the Company, any subsidiary of the Company, any Enterprise or Indemnitee in any matter material to any such party; or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. The Company agrees to pay the reasonable fees and expenses of the Independent Counsel referred to above and to fully indemnify such counsel against any and all expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(f) The term "Proceeding" shall include any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, whether brought in the right of the Company or otherwise and whether of a civil, criminal, administrative, regulatory or investigative nature, and whether formal or informal, in which Indemnitee was, is or will be involved as a party or otherwise by reason of the fact that Indemnitee is or was an officer of the Company or is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any Enterprise or by reason of any action taken by Indemnitee or of any action taken on his or her part while acting as an officer of the Company or while serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any Enterprise, in each case whether or not serving in such capacity at the time any liability or expense is incurred for which indemnification, reimbursement or advancement of expenses can be provided under this Agreement; provided, however, that the term "Proceeding" shall not include any action, suit or arbitration, or part thereof, initiated by Indemnitee to enforce Indemnitee's rights under this Agreement as provided for in Section 12(a) of this Agreement.

Section 3. Indemnity in Third-Party Proceedings. The Company shall indemnify Indemnitee to the extent set forth in this Section 3 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding, other than a Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 3, Indemnitee shall be indemnified against all Expenses, judgments, fines, penalties, excise taxes, and amounts paid in settlement actually and reasonably incurred by Indemnitee or on his or her behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company and, in the case of a criminal proceeding, had no reasonable cause to believe that his or her conduct was unlawful.

Section 4. Indemnity in Proceedings by or in the Right of the Company. The Company shall indemnify Indemnitee to the extent set forth in this Section 4 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 4, Indemnitee shall be indemnified against all Expenses actually and reasonably incurred by Indemnitee or on his or her behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company. No indemnification for Expenses shall be made under this Section 4 in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudged by a court to be liable to the Company, unless and only to the extent that the Delaware Court of Chancery (the "Delaware Court") shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification for such expenses as the Delaware Court shall deem proper.

Section 5. Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provisions of this Agreement and except as provided in

Section 7, to the extent that Indemnitee is a party to or a participant in any Proceeding and is successful in such Proceeding or in defense of any claim, issue or matter therein, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or her in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful as to one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on his or her behalf in connection with each successfully resolved claim, issue or matter. For purposes of this Section and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

Section 6. Reimbursement for Expenses of a Witness or in Response to a Subpoena. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee, by reason of his or her Corporate Status, (i) is a witness in any Proceeding to which Indemnitee is not a party and is not threatened to be made a party or (ii) receives a subpoena with respect to any Proceeding to which Indemnitee is not a party and is not threatened to be made a party, the Company shall reimburse Indemnitee for all Expenses actually and reasonably incurred by him or her or on his or her behalf in connection therewith.

Section 7. Exclusions. Notwithstanding any provision in this Agreement to the contrary, the Company shall not be obligated under this Agreement:

(a) to indemnify for amounts otherwise indemnifiable hereunder (or for which advancement is provided hereunder) if and to the extent that Indemnitee has otherwise actually received such amounts under any insurance policy, contract, agreement or otherwise;

(b) to indemnify for an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company within the meaning of Section 16(b) of the Securities Exchange Act of 1934, as amended, or similar provisions of state statutory law or common law;

(c) to indemnify for any reimbursement of, or payment to, the Company by Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by Indemnitee from the sale of securities of the Company pursuant to Section 304 of SOX or any formal policy of the Company adopted by the Board (or a committee thereof), or any other remuneration paid to Indemnitee if it shall be determined by a final judgment or other final adjudication that such remuneration was in violation of law;

(d) to indemnify with respect to any Proceeding, or part thereof, brought by Indemnitee against the Company, any legal entity which it controls, any director or officer thereof or any third party, unless (i) the Board has consented to the initiation of such Proceeding or part thereof and (ii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law; provided, however, that this Section 7(d) shall not apply to (A) counterclaims or affirmative defenses asserted by Indemnitee in an action brought against Indemnitee or (B) any action brought by Indemnitee for indemnification or advancement from the Company under this Agreement or under any directors' and officers'

liability insurance policies maintained by the Company in the suit for which indemnification or advancement is being sought as described in Section 12; or

(e) to provide any indemnification or advancement of expenses that is prohibited by applicable law (as such law exists at the time payment would otherwise be required pursuant to this Agreement).

Section 8. Advancement of Expenses. Subject to Section 9(b), the Company shall advance, to the extent not prohibited by law, the Expenses incurred by Indemnitee in connection with any Proceeding, and such advancement shall be made within thirty (30) days after the receipt by the Company of a statement or statements requesting such advances (which shall include invoices received by Indemnitee in connection with such Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnitee to waive any privilege accorded by applicable law need not be included with the invoice) from time to time, whether prior to or after final disposition of any Proceeding. Advances shall be unsecured and interest free. Advances shall be made without regard to Indemnitee's ability to repay the expenses and without regard to Indemnitee's ultimate entitlement to indemnification under the other provisions of this Agreement. Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement which shall constitute an undertaking providing that Indemnitee undertakes to the fullest extent required by law to repay the advance if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnitee is not entitled to be indemnified by the Company. The right to advances under this paragraph shall in all events continue until final disposition of any Proceeding, including any appeal therein. Nothing in this Section 8 shall limit Indemnitee's right to advancement pursuant to Section 12(e) of this Agreement.

Section 9. Procedure for Notification and Defense of Claim.

(a) To obtain indemnification under this Agreement, Indemnitee shall submit to the Company a written request therefor specifying the basis for the claim, the amounts for which Indemnitee is seeking payment under this Agreement, and all documentation related thereto as reasonably requested by the Company.

(b) In the event that the Company shall be obligated hereunder to provide indemnification for or make any advancement of Expenses with respect to any Proceeding, the Company shall be entitled to assume the defense of such Proceeding, or any claim, issue or matter therein, with counsel approved by Indemnitee (which approval shall not be unreasonably withheld or delayed) upon the delivery to Indemnitee of written notice of the Company's election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently employed by or on behalf of Indemnitee with respect to the same Proceeding; provided that (i) Indemnitee shall have the right to employ separate counsel in any such Proceeding at Indemnitee's expense and (ii) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of such defense, or (C) the

Company shall not continue to retain such counsel to defend such Proceeding, then the reasonable fees and expenses actually and reasonably incurred by Indemnitee with respect to his or her separate counsel shall be Expenses hereunder.

(c) In the event that the Company does not assume the defense in a Proceeding pursuant to paragraph (b) above, then the Company will be entitled to participate in the Proceeding at its own expense.

(d) The Company shall not be liable to indemnify Indemnitee under this Agreement for any amounts paid in settlement of any Proceeding effected without its prior written consent (which consent shall not be unreasonably withheld or delayed). The Company shall not, without the prior written consent of Indemnitee (which consent shall not be unreasonably withheld or delayed), enter into any settlement which (i) includes an admission of fault of Indemnitee, any non-monetary remedy imposed on Indemnitee or any monetary damages for which Indemnitee is not wholly and actually indemnified hereunder or (ii) with respect to any Proceeding with respect to which Indemnitee may be or is made a party or may be otherwise entitled to seek indemnification hereunder, does not include the full release of Indemnitee from all liability in respect of such Proceeding.

Section 10. Procedure Upon Application for Indemnification.

(a) Upon written request by Indemnitee for indemnification pursuant to Section 9(a), a determination, if such determination is required by applicable law, with respect to Indemnitee's entitlement to indemnification hereunder shall be made in the specific case by one of the following methods: (i) by a majority vote of the disinterested directors, even though less than a quorum; (ii) by a committee of disinterested directors designated by a majority vote of the disinterested directors, even though less than a quorum; or (iii) if there are no disinterested directors or if the disinterested directors so direct, by Independent Counsel in a written opinion to the Board. For purposes hereof, disinterested directors are those members of the Board who are not parties to the action, suit or proceeding in respect of which indemnification is sought. In the case that such determination is made by Independent Counsel, a copy of Independent Counsel's written opinion shall be delivered to Indemnitee and, if it is so determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within thirty (30) days after such determination. Indemnitee shall cooperate with the Independent Counsel or the Company, as applicable, in making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such counsel or the Company, upon reasonable advance request, any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination. Any reasonable out-of-pocket costs or expenses (including reasonable attorneys' fees and disbursements) actually and reasonably incurred by Indemnitee in so cooperating with the Independent Counsel or the Company shall be borne by the Company (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Company hereby indemnifies and agrees to hold Indemnitee harmless therefrom.

(b) If the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 10(a), the Independent Counsel shall be selected by the Board. Indemnitee may, within ten (10) days after written notice of such selection, deliver to the

Company a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 2 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or the Delaware Court has determined that such objection is without merit. If, within twenty (20) days after the later of (i) submission by Indemnitee of a written request for indemnification pursuant to Section 9(a), and (ii) the final disposition of the Proceeding, including any appeal therein, no Independent Counsel shall have been selected without objection, either Indemnitee or the Company may petition the Delaware Court for resolution of any objection which shall have been made by Indemnitee or the Company to the selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by the court or by such other person as the court shall designate. The person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 10(a) hereof. Upon the due commencement of any judicial proceeding or arbitration pursuant to Section 12(a) of this

Agreement, Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

Section 11. Presumptions and Effect of Certain Proceedings.

(a) To the extent permitted by applicable law, in making a determination with respect to entitlement to indemnification hereunder, it shall be presumed that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 9(a) of this Agreement, and the Company shall have the burden of proof to overcome that presumption in connection with the making of any determination contrary to that presumption.

(b) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of guilty, nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that his or her conduct was unlawful.

(c) The knowledge and/or actions, or failure to act, of any director, manager, partner, officer, employee, agent or trustee of the Company, any subsidiary of the Company, or any Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

Section 12. Remedies of Indemnitee.

(a) Subject to Section 12(f), in the event that (i) a determination is made pursuant to Section 10 of this Agreement that Indemnitee is not entitled to indemnification under

this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 8 of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 10(a) of this Agreement within sixty (60) days after receipt by the Company of the request for indemnification for which a determination is to be made other than by Independent Counsel, (iv) payment of indemnification or reimbursement of expenses is not made pursuant to Section 5 or 6 or the last sentence of Section 10(a) of this Agreement within thirty (30) days after receipt by the Company of a written request therefor or (v) payment of indemnification pursuant to Section 3 or 4 of this Agreement is not made within thirty (30) days after a determination has been made that Indemnitee is entitled to indemnification, Indemnitee shall be entitled to an adjudication by the Delaware Court of his or her entitlement to such indemnification or advancement. Alternatively, Indemnitee, at his or her option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration within 180 days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 12(a); provided, however, that the foregoing time limitation shall not apply in respect of a proceeding brought by Indemnitee to enforce his or her rights under Section 5 of this Agreement. The Company shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration.

(b) In the event that a determination shall have been made pursuant to Section 10(a) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 12 shall be conducted in all respects as a de novo trial, or arbitration, on the merits and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced pursuant to this Section 12, the Company shall have the burden of proving Indemnitee is not entitled to indemnification or advancement, as the case may be.

(c) If a determination shall have been made pursuant to Section 10(a) of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 12, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) The Company shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 12 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Company is bound by all the provisions of this Agreement.

(e) The Company shall indemnify Indemnitee to the fullest extent permitted by law against any and all Enforcement Expenses and, if requested by Indemnitee, shall (within thirty (30) days after receipt by the Company of a written request therefor) advance, to the extent not prohibited by law, such Enforcement Expenses to Indemnitee, which are incurred by Indemnitee in connection with any action brought by Indemnitee for indemnification or advancement from the Company under this Agreement or under any directors' and officers'

liability insurance policies maintained by the Company in the suit for which indemnification or advancement is being sought. Such written request for advancement shall include invoices received by Indemnitee in connection with such Enforcement Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnitee to waive any privilege accorded by applicable law need not be included with the invoice.

(f) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification under this Agreement shall be required to be made prior to the final disposition of the Proceeding, including any appeal therein.

Section 13. Non-exclusivity; Survival of Rights; Insurance; Subrogation.

(a) The rights of indemnification and to receive advancement as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Charter, the Bylaws, any agreement, a vote of stockholders or a resolution of directors, or otherwise. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his or her Corporate Status prior to such amendment, alteration or repeal. To the extent that a change in Delaware law, whether by statute or judicial decision, permits greater indemnification or advancement than would be afforded currently under the

Charter, the Bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, managers, partners, officers, employees, agents or trustees of the Company or of any other Enterprise, Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any such director, manager, partner, officer, employee, agent or trustee under such policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies.

(c) In the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

(d) The Company's obligation to provide indemnification or advancement hereunder to Indemnitee who is or was serving at the request of the Company as a director,

manager, partner, officer, employee, agent or trustee of any other Enterprise shall be reduced by any amount Indemnitee has actually received as indemnification or advancement from such other Enterprise.

Section 14. Duration of Agreement. This Agreement shall continue until and terminate upon the later of: (a) ten (10) years after the date that Indemnitee shall have ceased to serve as an officer of the Company or (b) one (1) year after the final termination of any Proceeding, including any appeal, then pending in respect of which Indemnitee is granted rights of indemnification or advancement hereunder and of any proceeding commenced by Indemnitee pursuant to Section 12 of this Agreement relating thereto. This Agreement shall be binding upon the Company and its successors and assigns and shall inure to the benefit of Indemnitee and his or her heirs, executors and administrators. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

Section 15. Severability. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and shall remain enforceable to the fullest extent permitted by law; (b) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and (c) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

Section 16. Enforcement.

(a) The Company expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to serve or continue to serve as an officer of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as an officer of the Company.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; provided, however, that this Agreement is a supplement to and in furtherance of the Charter, the Bylaws and applicable law, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

Section 17. Modification and Waiver. No supplement, modification or amendment, or waiver of any provision, of this Agreement shall be binding unless executed in writing by the

parties thereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement nor shall any waiver constitute a continuing waiver. No supplement, modification or amendment of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee prior to such supplement, modification or amendment.

Section 18. Notice by Indemnitee. Indemnitee agrees promptly to notify the Company in writing upon being served with any summons, citation, subpoena, complaint, indictment, information or other document relating to any Proceeding or matter which may be subject to indemnification, reimbursement or advancement as provided hereunder. The failure of Indemnitee to so notify the Company shall not relieve the Company of any obligation which it may have to Indemnitee under this Agreement or otherwise.

Section 19. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given if (i) delivered by hand and receipted for by the party to whom said notice or other communication shall have been directed, (ii) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed, (iii) mailed by reputable overnight courier and receipted for by the party to whom said notice or other communication shall have been directed or (iv) sent by facsimile transmission, with receipt of oral confirmation that such transmission has been received:

(a) If to Indemnitee, at such address as Indemnitee shall provide to the Company.

(b) If to the Company to:

Blueprint Medicines Corporation
215 First Street
Cambridge, Massachusetts 02142
Attention: Chief Executive Officer

or to any other address as may have been furnished to Indemnitee by the Company.

Section 20. Contribution. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any Proceeding in such proportion as is deemed fair and reasonable in light of all of the circumstances in order to reflect (i) the relative benefits received by the Company and Indemnitee in connection with the event(s) and/or transaction(s) giving rise to such Proceeding; and/or (ii) the relative fault of the Company (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transactions.

Section 21. Internal Revenue Code Section 409A. The Company intends for this Agreement to comply with the Indemnification exception under Section 1.409A-1(b)(10) of the

regulations promulgated under the Internal Revenue Code of 1986, as amended (the "Code"), which provides that indemnification of, or the purchase of an insurance policy providing for payments of, all or part of the expenses incurred or damages paid or payable by Indemnitee with respect to a bona fide claim against Indemnitee or the Company do not provide for a deferral of compensation, subject to Section 409A of the Code, where such claim is based on actions or failures to act by Indemnitee in his or her capacity as a service provider of the Company. The parties intend that this Agreement be interpreted and construed with such intent.

Section 22. Applicable Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. Except with respect to any arbitration commenced by Indemnitee pursuant to Section 12(a) of this Agreement, the Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court, and not in any other state or federal court in the United States of America or any court in any other country, (ii) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) consent to service of process at the address set forth in Section 19 of this Agreement with the same legal force and validity as if served upon such party personally within the State of Delaware, (iv) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court, and (v) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

Section 23. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

Section 24. Identical Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed as of the day and year first above written.

BLUEPRINT MEDICINES CORPORATION

By: _____
Name:
Title:

_____
[Name of Indemnitee]

[Signature Page to Indemnification Agreement]

EXHIBIT 21.1

SUBSIDIARIES OF THE REGISTRANT

None.

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Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the reference of our firm under the caption "Experts" and to the use of our report dated February 19, 2015, except for Note 12B, as to which the date is March 23, 2015, in the Registration Statement (Form S-1) and related Prospectus of Blueprint Medicines Corporation dated March 23, 2015.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 23, 2015

QuickLinks