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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2016

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 001-37359

BLUEPRINT MEDICINES CORPORATION
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**26-3632015**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**
38 Sidney Street, Suite 200 Cambridge, Massachusetts	**02139**
(Address of Principal Executive Offices)	**(Zip Code)**

(617) 374-7580
(Registrant's Telephone Number, Including Area Code)

(Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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. (Check one):

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Number of shares of the registrant's common stock, $0.001 par value, outstanding on May 6, 2016: 27,238,661

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Unless otherwise stated, all references to "us," "our," "Blueprint," "Blueprint Medicines," "we," the "Company" and similar designations in this Quarterly Report on Form 10-Q refer to Blueprint Medicines Corporation and its consolidated subsidiary, Blueprint Medicines Security Corporation.

FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this Quarterly Report on Form 10-Q 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, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this Quarterly Report on Form 10-Q include, but are not limited to, statements about:

- the initiation, timing, progress and results of our pre-clinical studies and clinical trials, including our Phase 1 clinical trials for BLU-285 and BLU-554, and our research and development programs;
- our ability to advance drug candidates into, and successfully complete, clinical trials;
- the accuracy of our estimates regarding expenses, future revenues and capital requirements;
- the timing or likelihood of regulatory filings 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 rare genetic disease collaboration with Alexion Pharma Holding and our existing cancer immunotherapy collaboration with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc., as well as our ability to enter into other strategic arrangements;
- our ability to maintain and establish collaborations or obtain additional grant funding;
- our financial performance; and
- developments relating to our competitors and our industry.

Any forward-looking statements in this Quarterly Report on Form 10-Q 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. We have included important factors in the cautionary statements included in this Quarterly Report on Form 10-Q, particularly in the "Risk Factors" section, that could cause actual results or events to differ materially from the forward-looking statements that we make. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make or enter into.

You should read this Quarterly Report on Form 10-Q and the documents that we have filed as exhibits to this

Quarterly Report on Form 10-Q completely and with the understanding that our actual future results, performance or achievements may be materially different from what we expect. 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.

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

Blueprint Medicines Corporation
Condensed Consolidated Balance Sheets
(in thousands, except share and per share data)
(Unaudited)

	March 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$ 122,289	$ 162,707
Investments, available-for-sale	69,218	—
Restricted cash	—	119
Unbilled accounts receivable	4,232	3,414
Prepaid expenses and other current assets	1,928	4,176
Total current assets	197,667	170,416
Property and equipment, net	6,537	6,661
Other assets	540	555
Restricted cash	1,266	1,266
Total assets	$ 206,010	$ 178,898
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	2,773	2,455
Accrued expenses	5,335	6,436
Restricted stock liability	5	7
Current portion of deferred revenue	11,819	5,898
Current portion of lease incentive obligation	578	578
Current portion of term loan payable	3,272	3,266
Total current liabilities	23,782	18,640
Deferred rent, net of current portion	868	842
Restricted stock liability, net of current portion	—	1
Deferred revenue, net of current portion	44,948	7,742
Lease incentive obligation, net of current portion	3,226	3,370
Term loan payable, net of current portion	3,246	4,072
Other long term liabilities	281	252
Commitments (Note 11)		
Stockholders' equity:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.001 par value; 120,000,000 shares authorized; 27,231,723 and 27,196,053 shares issued at March 31, 2016 and December 31, 2015, respectively, and 27,141,593 and 27,065,558 shares outstanding at March 31, 2016 and December 31, 2015, respectively	27	27
Additional paid-in capital	280,080	278,927
Accumulated other comprehensive income	31	—
Accumulated deficit	(150,479)	(134,975)
Total stockholders' equity	129,659	143,979
Total liabilities and stockholders' equity	$ 206,010	$ 178,898

Blueprint Medicines Corporation
Condensed Consolidated Statements of Operations and Comprehensive Loss
(in thousands, except per share data)
(Unaudited)

	Three Months Ended March 31,	
	2016	2015
Collaboration revenue	$ 6,856	$ 652
Operating expenses:		
Research and development	17,635	9,232
General and administrative	4,646	2,770
Total operating expenses	22,281	12,002
Other income (expense):		
Other income (expense), net	61	(37)
Interest expense	(140)	(185)
Total other income (expense)	(79)	(222)
Net loss	$ (15,504)	$ (11,572)
Other comprehensive income (loss):		
Unrealized gain on investments	31	—
Comprehensive loss	$ (15,473)	$ (11,572)
Reconciliation of net loss applicable to common stockholders:		
Net loss	$ (15,504)	$ (11,572)
Convertible preferred stock dividends	—	(2,270)
Net loss applicable to common stockholders	$ (15,504)	$ (13,842)
Net loss per share applicable to common stockholders — basic and diluted	$ (0.57)	$ (8.23)
Weighted-average number of common shares used in net loss per share applicable to common stockholders — basic and diluted	27,088	1,681

Blueprint Medicines Corporation
Condensed Consolidated Statements of Cash Flows
(in thousands)
(Unaudited)

	Three Months Ended March 31,	
	2016	**2015**
Operating activities		
Net loss	$ (15,504)	$ (11,572)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	386	209
Noncash interest expense	22	29
Change in fair value of warrant liability	—	38
Stock-based compensation	1,102	840
Accretion of premiums and discounts on investments	35	—
Changes in assets and liabilities:		
Unbilled accounts receivable	(818)	(484)
Prepaid expenses and other current assets	2,262	(364)
Other assets	11	—
Accounts payable	567	1,517
Accrued expenses	(321)	(115)
Deferred revenue	43,127	14,832
Deferred rent	(118)	(40)
Net cash provided by operating activities	30,751	4,890
Investing activities		
Purchases of property and equipment	(1,262)	(19)
Restricted cash	119	(1,266)
Purchases of investments	(69,222)	—
Net cash used in investing activities	(70,365)	(1,285)
Financing activities		
Principal payments on loan payable	(833)	(417)
Proceeds from issuance of Series C convertible preferred stock, net of issuance costs	—	(3)
Payment of offering costs	—	(146)
Proceeds from issuance of common stock, net of repurchases	29	19
Net cash used in financing activities	(804)	(547)
Net (decrease) increase in cash and cash equivalents	(40,418)	3,058
Cash and cash equivalents at beginning of period	162,707	47,240
Cash and cash equivalents at end of period	$ 122,289	$ 50,298
Supplemental cash flow information		
Cash paid for interest	$ 95	$ 120
Property and equipment purchases incurred but unpaid at period end	$ 244	$ —
Public offering costs incurred but unpaid at period end	$ —	$ 805

Blueprint Medicines Corporation
Notes to Condensed Consolidated Financial Statements
(Unaudited)

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 diseases in genomically defined patient populations and to craft drug candidates with therapeutic windows that may provide significant and durable clinical response to patients without adequate treatment options.

The Company is devoting substantially all of its efforts to research and development, initial market development, and raising capital. The Company is subject to a number of risks similar to those of other early stage companies, including dependence on key individuals; establishing safety and efficacy in clinical trials for its drug candidates; the need to develop commercially viable drug candidates; 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 drug candidates. 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.

On May 5, 2015, the Company completed an initial public offering (IPO) of its common stock, which resulted in the sale of 9,367,708 shares of its common stock, including 1,221,874 shares of common stock sold by the Company pursuant to the exercise in full by the underwriters of their option to purchase additional shares in connection with the offering, at a price to the public of $18.00 per share. The Company received net proceeds of $154.8 million after deducting underwriting discounts and commissions and offering costs paid by the Company.

2. Summary of Significant Accounting Policies and Recent Accounting Pronouncements

Basis of Presentation

The unaudited interim condensed consolidated financial statements of the Company included herein have been prepared in accordance with accounting principles generally accepted in the United States (GAAP) as found in the Accounting Standards Codification (ASC), Accounting Standards Update (ASU) of the Financial Accounting Standards Board (FASB) and the rules and regulations of the SEC. Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted from this report, as is permitted by such rules and regulations. Accordingly, these financial statements should be read in conjunction with the financial statements as of and for the year ended December 31, 2015 and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2015, filed with the Securities and Exchange Commission on March 11, 2016.

The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited financial statements and include the accounts of the Company and its wholly owned subsidiary, Blueprint Medicines Security Corporation, which is a Massachusetts subsidiary created to buy, sell, and hold securities. All intercompany transactions and balances have been eliminated. In the opinion of the Company's management, the accompanying unaudited interim condensed consolidated financial statements contain all adjustments which are necessary to present fairly the Company's financial position as of March 31, 2016 and the results of its operations for the three months ended March 31, 2016 and 2015 and cash flows for the three months ended March 31, 2016 and 2015. Such adjustments are of a normal and recurring nature. The results for the three months ended March 31, 2016 are not necessarily indicative of the results for the year ending December 31, 2016, or for any future period.

In connection with preparing for its IPO, the Company effected a 1-for-5.5 reverse stock split of the Company's common stock. The reverse stock split became effective on April 10, 2015. All share and per share amounts in the financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to this reverse stock split, including reclassifying an amount equal to the reduction in par value of common stock to additional paid-in capital. Upon the closing of the IPO in May 2015, all of the Company's outstanding convertible preferred stock automatically converted into 15,467,479 shares of common stock, and warrants exercisable for convertible preferred

stock automatically converted into warrants exercisable for 42,423 shares of common stock. The significant increase in shares outstanding in the three months ended March 31, 2016 is expected to impact the year-over-year comparability of the Company's net loss per share calculations through the second quarter of 2016.

Use of Estimates

The preparation of financial statements in conformity with 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 prior to the IPO; revenue recognition; the valuation of liability-classified warrants prior to the IPO; accrued expenses; and income taxes.

Significant Accounting Policies

There have been no other material changes to the significant accounting policies previously disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2015.

Recent Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers* (ASU 2014-09), which supersedes the revenue recognition requirements in ASC 605-25, *Multiple-Element Arrangements* and most industry-specific guidance. The new standard requires that an entity recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The update also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. This new guidance will be effective for annual reporting periods (including interim reporting periods within those years) beginning January 1, 2018. Early adoption in 2017 is permitted. Companies have the option of applying this new guidance retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying this update recognized at the date of initial application. The Company is in the process of evaluating the new guidance and determining the expected effects of the adoption of this standard on its consolidated financial statements.

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 reporting periods (including interim reporting periods within those years) ending after December 15, 2016. Early adoption is permitted. The new accounting standard will impact the disclosure in the Company's consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, *Compensation – Stock Compensation*, which amends ASC Topic 718, *Compensation – Stock Compensation*. The new standard identifies areas for simplification involving several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. The amendments are effective for annual reporting periods (including interim reporting periods within those years) beginning after December 15, 2016. Early adoption is permitted. A company that elects early adoption must adopt all of the amendments in the same period. The Company is currently evaluating the potential impact that ASU 2016-09 may have on the Company's consolidated financial statements

In 2016, the FASB issued amended guidance applicable to leases that will be effective for annual reporting periods (including interim reporting periods within those years) beginning after December 15, 2018. Early adoption is permitted. This update requires a company to recognize assets and liabilities for leases with lease terms of more than 12 months on the balance sheet. The Company is in the process of evaluating the new guidance and determining the

expected effect on the Company's consolidated financial statements.

3. *Cash Equivalents and Investments*

Cash equivalents are highly liquid investments that are readily convertible into cash with original maturities of three months or less when purchased. Investments consist of securities with original maturities greater than 90 days when purchased. The Company classifies these investments as available-for-sale and records them at fair value in the accompanying condensed consolidated balance sheets. Unrealized gains or losses are included in accumulated other comprehensive income (loss). Premiums or discounts from par value are amortized to investment income over the life of the underlying investment.

Cash equivalents and investments, available-for-sale, consisted of the following at March 31, 2016 and December 31, 2015 (in thousands):

March 31, 2016	**Average Maturity**	**Amortized Cost**	**Unrealized Gain**	**Unrealized Losses**	**Fair Value**
Cash equivalents:					
Money market funds		$ 122,289	$ —	$ —	$ 122,289
Investments, available-for-sale:					
U.S. treasury obligations	258 Days	69,187	31	—	69,218
Total		$ 191,476	$ 31	$ —	$ 191,507

December 31, 2015	**Average Maturity**	**Amortized Cost**	**Unrealized Gain**	**Unrealized Losses**	**Fair Value**
Cash equivalents:					
Money market funds		$ 162,707	$ —	$ —	$ 162,707

Although available to be sold to meet operating needs or otherwise, securities are generally held through maturity. The cost of securities sold is determined based on the specific identification method for purposes of recording realized gains and losses. During the three months ended March 31, 2016, there were no realized gains or losses on sales of investments, and no investments were adjusted for other than temporary declines in fair value.

4. *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 March 31, 2016 are classified below based on the fair value hierarchy described above:

Description	March 31, 2016	Active Markets (Level 1)	Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Financial Assets				
Cash equivalents:				
Money market funds	$ 122,289	$ 122,289	$ —	$ —
Investments, available-for-sale:				
U.S Treasury obligations	69,218	69,218	—	—
Total	$ 191,507	$ 191,507	$ —	$ —

Financial instruments measured at fair value as of December 31, 2015 are classified below based on the fair value hierarchy described above:

Description	December 31, 2015	Active Markets (Level 1)	Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Financial Assets				
Cash equivalents:				
Money market funds	$ 162,707	$ 162,707	$ —	$ —

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.

5. Restricted Cash

At March 31, 2016 and December 31, 2015, $1.3 million and $1.4 million, respectively, of the Company's cash is restricted by a bank. As of March 31, 2016, $1.3 million of restricted cash was included in long-term assets on the Company's balance sheet related to a security deposit for the lease agreement for the Company's corporate headquarters.

6. Collaborations

Roche

In March 2016, the Company entered into a collaboration and license agreement (Roche agreement) with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc. (collectively, Roche) for the discovery, development and commercialization of up to five small molecule therapeutics targeting kinases believed to be important in cancer immunotherapy, as single products or possibly in combination with other therapeutics. The parties have agreed to the targets for three of the collaboration programs, all of which are expected to begin in 2016, and the parties have agreed to work together to use the Company's novel target discovery engine and proprietary compound library to select targets for up to two additional collaboration programs.

Under the Roche agreement, Roche is granted up to five option rights to obtain an exclusive license to exploit products derived from the collaboration programs in the field of cancer immunotherapy. Such option rights are triggered upon the achievement of Phase 1 proof-of-concept. For up to three of the five collaboration programs, if Roche exercises its option, Roche will receive worldwide, exclusive commercialization rights for the licensed products. For up to two of the five collaboration programs, if Roche exercises its option, the Company will retain commercialization rights in the United States for the licensed products, and Roche will receive commercialization rights outside of the United States for the licensed products. The Company will also retain worldwide rights to any products for which Roche elects not to exercise its applicable option.

Prior to Roche's exercise of an option, the Company will have the lead responsibility for drug discovery and pre-clinical development of all collaboration programs. In addition, the Company will have the lead responsibility for the conduct of all Phase 1 clinical trials other than those Phase 1 clinical trials for any product in combination with Roche's portfolio of therapeutics, for which Roche will have the right to lead the conduct of such Phase 1 clinical trials. Pursuant to the Roche agreement, the parties will share the costs of Phase 1 development for each collaboration program. In addition, Roche will be responsible for post-Phase 1 development costs for each licensed product for which it retains global commercialization rights, and the Company and Roche will share post-Phase 1 development costs for each licensed product for which the Company retains commercialization rights in the United States.

Subject to the terms of the Roche agreement, the Company received an upfront cash payment of $45.0 million and will be eligible to receive up to approximately $965.0 million in contingent option fees and milestone payments related to specified research, pre-clinical, clinical, regulatory and sales-based milestones. Of the total contingent payments, up to approximately $215.0 million are for option fees and milestone payments for research, pre-clinical and clinical development events prior to licensing across all five potential collaboration programs, including contingent milestone payments for initiation of each of the collaboration programs for which the parties will work together to select targets (pre-option exercise milestones). In addition, for any licensed product for which Roche retains worldwide commercialization rights, the Company will be eligible to receive tiered royalties ranging from low double-digits to high-teens on future net sales of the licensed product. For any licensed product for which the Company retains commercialization rights in the United States, the Company and Roche will be eligible to receive tiered royalties ranging from mid-single-digits to low double-digits on future net sales in the other party's respective territories in which it commercializes the licensed product.

The Roche agreement will continue until the date when no royalty or other payment obligations are or will become due, unless earlier terminated in accordance with the terms of the Roche agreement. Prior to its exercise of its first option, Roche may terminate the Roche agreement at will, in whole or on a collaboration target-by-collaboration target basis, upon 120 days' prior written notice to the Company. Following its exercise of an option, Roche may terminate the Roche agreement at will, in whole, on a collaboration target-by-collaboration target basis, on a collaboration program-by-collaboration program basis or, if a licensed product has been commercially sold, on a country-by-country basis, (i) upon 120 days' prior written notice if a licensed product has not been commercially sold or (ii) upon 180 days' prior written notice if a licensed product has been commercially sold. Either party may terminate the Roche agreement for the other party's uncured material breach or insolvency and in certain other circumstances agreed to by the parties. In certain termination circumstances, the Company is entitled to retain specified licenses to be able to continue to exploit the licensed products.

The Company determined that there were five deliverables under the Roche agreement: (i) a non-transferable, sub-licensable and non-exclusive license to use the Company's intellectual property and collaboration compounds to conduct research activities;(ii) conducting research and development activities through Phase 1 clinical trials under the research plan; (iii) providing pre-clinical and clinical supply of collaboration compounds; (iv) participation on a joint research committee (JRC) and joint development committee (JDC); and (v) regulatory responsibilities under Phase 1 clinical trials.

The Company determined that the license did not have value to Roche on a stand-alone basis due to the specialized nature of the research activities to be provided by the Company that are not available in the marketplace and the fact that the license is to perform research and development only. Therefore, the license has limited value without the performance of the research and development activities and is not separable. The pre-clinical and clinical supply activities are integral to the performance of the research and development activities and can only be used for the performance of such activities, and the regulatory responsibilities are dependent on the research and development activities. The Company determined that the best estimate for the selling price of the JRC and JDC participation was inconsequential. Accordingly, the Company combined the license, pre-clinical and clinical supply, JRC and JDC participation and regulatory responsibilities deliverables with the research and development activities, the last item to be delivered in the arrangement, as one unit of accounting. The Company is recognizing the total allocable arrangement consideration consisting of the upfront payment of $45.0 million as revenue on a straight-line basis over the Company's best estimate of the period it expects to perform research and development activities. The Company expects the services to be delivered ratably.

The Company evaluated whether the option fees that may be received in connection with the Roche agreement are substantive. The Company concluded that the option fees were substantive due to the uncertainty around whether the goals of the collaboration will be achieved, and therefore the options are not a deliverable in the current arrangement. If Roche elects to exercise the options, the exercises and related contingent deliverables would be accounted for as a separate arrangement.

The Company evaluated whether the milestones that may be received in connection with the Roche agreement are substantive milestones. Pre-option exercise milestones that are expected to be achieved as a result of the Company's efforts during the performance of the research and development activities are considered substantive and are recognized as revenue upon the achievement of the milestone, assuming all other revenue recognition criteria are met. The development event milestones are not considered substantive because the Company does not contribute effort to the achievement of such milestones as they are expected to be achieved after the performance of the research and development activities. Consideration received with respect to these milestones will be added to the total arrangement consideration that has been allocated to the identified units of accounting. As a result, that amount is recognized as revenue ratably over the period starting from the effective date of the agreement to the date that the Company will complete all of its obligations, with a cumulative catch-up from the effective date through the date of achievement of the milestone. If the consideration is received after the completion of all of the Company’s obligations, the amount will be recognized as revenue immediately.

During the three months ended March 31, 2016, the Company recognized revenue under the Roche agreement of $0.2 million, which represents a portion of the $45.0 million upfront payment.

Alexion

In March 2015, the Company entered into a research, development and commercialization agreement (Alexion agreement) with Alexion Pharma Holding (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 the Alexion agreement, the Company is responsible for research and pre-clinical development activities related to drug candidates and Alexion is 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 a negotiated yearly rate per full-time equivalent for its employees’ time and their associated overhead expenses. The Company received a $15.0 million non-refundable upfront payment in March 2015 upon execution of the Alexion agreement and is eligible to receive over $250.0 million in payments upon the successful achievement of pre-specified pre-clinical, clinical, regulatory and commercial milestones as follows: (i) up to $6.0 million in pre-clinical milestone payments for the first licensed product, (ii) up to $83.0 million and $61.5 million in development milestone payments for the first and second licensed products, respectively, and (iii) up to $51.0 million in commercial milestone payments for each of the first and second licensed products. Alexion will pay the Company tiered royalties, ranging from mid-single to low-double digit percentages, on a country-by-country and licensed-product-by-licensed product basis, on worldwide net product sales of licensed products. The royalty term for each licensed product in each country is the period commencing with first commercial sale of such licensed product in such country and ending on the later of (i) the expiration of the last-to-expire valid claim of specified patents covering such licensed product, (ii) the expiration of the applicable regulatory exclusivity period, and (iii) 10 or 15 years from specified commercial sales. There are no refund provisions in the Alexion agreement.

Alexion has the right to terminate the Alexion agreement if the Company undergoes a change of control or becomes an affiliate of a biotechnology or pharmaceutical company, and may terminate the Alexion agreement at will upon 90 days prior written notice. The Company and Alexion have the right to terminate the Alexion agreement in the event of the other party’s uncured breach or insolvency, and in certain other circumstances agreed to by the parties.

The Company determined that there were three deliverables under the Alexion agreement: (i) an exclusive license to research, develop, manufacture and commercialize the licensed products and the compounds in the field in the territory, (ii) conducting research and development activities under the research plan and (iii) participation on a joint steering committee (JSC) and joint project team (JPT).

The Company determined that the license did not have value to Alexion on a stand-alone basis due to the specialized nature of the research services to be provided by the Company that are not available in the marketplace. Therefore, the deliverables are not separable and, accordingly, the license, undelivered research and development activities and JSC and JPT participation are a single unit of accounting. When multiple deliverables are accounted for as a single unit of accounting, the Company bases its revenue recognition model on the final deliverable. Under the Alexion agreement, the last deliverable to be completed is its research and development activities and participation on the JSC and JPT, which are expected to be delivered over the same performance period. The Company is utilizing a proportional performance model to recognize revenue under the Alexion agreement.

The Company evaluated whether the milestones that may be received in connection with the Alexion agreement are substantive or non-substantive milestones. The Company concluded that the first pre-clinical milestone payment in the Alexion agreement is non-substantive due to the certainty at the date the arrangement was entered into that the event will be achieved. In the second quarter of 2015, the Company achieved the first pre-clinical milestone under the Alexion agreement and received a $1.75 million payment from Alexion. The Company is recognizing revenues from the related milestone payment over the period of performance.

The remaining non-refundable pre-clinical milestones that are expected to be achieved as a result of the Company's efforts during the period of substantial involvement are considered substantive and are recognized as revenue upon the achievement of the milestone, assuming all other revenue recognition criteria are met. The Company recognized the first substantive milestone of $0.25 million in the fourth quarter of 2015 and received payment from Alexion in the first quarter of 2016. In the first quarter of 2016, the Company recognized and received payment from Alexion for the second substantive milestone of $0.75 million. Milestones that are not considered substantive because the Company does not contribute effort to the achievement of such milestones are generally achieved after the period of substantial involvement and are recognized as revenue upon achievement of the milestone, as there are no undelivered elements remaining and no continuing performance obligations, assuming all other revenue recognition criteria are met.

During the three months ended March 31, 2016, the Company recognized revenue under the Alexion agreement of $6.6 million, which represents reimburseable research and development costs, the $0.75 million milestone payment, which was recognized upon achievement, as well as a portion of the $15.0 million upfront payment and the $1.75 million non-substantive milestone payment previously received. The Company received $3.2 million related to reimbursable research and development costs under the Alexion agreement for the three months ended March 31, 2016. As of March 31, 2016, the Company has recorded unbilled accounts receivable of $4.2 million related to reimbursable research and development costs under the Alexion agreement for activities performed during the first quarter of 2016.

7. Term Loan

In May 2013, the Company entered into a loan and security agreement with Silicon Valley Bank (the 2013 Term Loan), which provided for up to $5.0 million in funding, to be made available in three tranches. 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 2013 Term Loan 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 2013 Term Loan 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 2013 Term Loan and was 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 2013 Term Loan to allow the Company to borrow an additional $5.0 million (the 2014 Term Loan). The Company accounted for the amendment as a modification to the existing 2013 Term Loan. The Company immediately drew the additional $5.0 million under the 2014 Term Loan and was 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% of the total loan advances at the end of the term of each of the 2013 Term Loan and the 2014 Term Loan. The fee is being accreted to interest expense over the term of the 2013 Term Loan and the 2014 Term 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 2013 Term Loan and 2014 Term Loan are collateralized by a blanket lien on all corporate assets, excluding intellectual property, and by a negative pledge of the Company's intellectual property. The 2013 Term Loan and 2014 Term Loan contain 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 2013 Term Loan and the 2014 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 each of the 2013 Term Loan and the 2014 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.

Future minimum payments, which include principal and interest due under each of the 2013 Term Loan and the 2014 Term Loan, are $2.7 million, in the aggregate, for the remainder of 2016.

8. Warrants

In connection with the 2013 Term Loan, 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 (the Series A Warrant). In connection with the 2014 Term Loan, the Company issued an additional 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 (the Series B Warrant). Both warrants were exercisable immediately and have a ten-year life.

The Company initially valued the Series A Warrant and the Series B Warrant 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 common stock valuations on those dates.

In accordance with ASC 480, the characteristics of these warrants and the rights and privileges of the underlying preferred stock resulted in the classification of these warrants as a liability, and they were re-measured to the-then current fair value at each balance sheet date through the completion of the IPO. Re-measurement gains or losses were recorded in other income (expense) in the condensed consolidated statements of operations and comprehensive loss. Changes in the fair value of the warrants represented a recurring measurement that was classified within Level 3 of the fair value hierarchy wherein fair value is estimated using significant unobservable inputs. The Company recorded less than $0.1 million of expense associated with the change in fair value of the warrants in the three months ended March 31, 2015. Upon completion of the IPO, the Series A Warrant became exercisable for 27,272 shares of the common stock at an exercise price of $5.50 per share, and the Series B Warrant became exercisable for 15,151 shares of the common stock at an exercise price of $6.60 per share. On the date of the conversion of the warrants, the Company revalued the outstanding warrants using the Black-Scholes option pricing model and reclassified the fair value of the warrants of $0.8 million to additional paid-in capital.

On May 13, 2015, Silicon Valley Bank exercised the Series A Warrant and the Series B Warrant pursuant to the cashless exercise feature of the warrants. In connection with the exercise of the Series A Warrant under the 2013 Term Loan, the Company issued 21,281 shares of common stock to Silicon Valley Bank. Warrants to purchase 5,991 shares of common stock were cancelled as payment for the aggregate exercise price of the Series A Warrant to Silicon Valley Bank. In connection with the exercise of the Series B Warrant under the 2014 Term Loan, the Company issued 11,157 shares of common stock. Warrants to purchase 3,994 shares of common stock were cancelled as payment for the aggregate exercise price of the Series B Warrant.

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 recorded interest expense related to the Series A Warrant and the Series B Warrant of less than $0.1 million in the three months ended March 31, 2016 and 2015.

9. Stock Awards

2015 Stock Option and Incentive Plan

In 2015, the Company's board of directors and stockholders approved the 2015 Stock Option and Incentive Plan (the 2015 Plan), which replaced the Company's 2011 Stock Option and Grant Plan, as amended (the 2011 Plan). The 2015 Plan includes incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units, unrestricted stock, performance share awards and cash-based awards. The Company initially reserved a total of 1,460,084 shares of common stock for the issuance of awards under the 2015 Plan. The 2015 Plan provides that the number of shares reserved and available for issuance under the 2015 Plan will be cumulatively increased on January 1 of each calendar year by 4% of the number of shares of common stock issued and outstanding on the immediately preceding December 31 or such lesser amount as specified by the compensation committee of the board of directors. For the calendar year beginning January 1, 2016, the number of shares reserved for issuance under the 2015 Plan was increased by 1,087,842 shares. In addition, the total number of shares reserved for issuance is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization. At March 31, 2016, there were 1,906,722 shares available for future grant under the 2015 Plan.

Awards

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.

A summary of the Company's unvested restricted stock and related information follows:

	Shares	Weighted-Average Grant Date Fair Value
Unvested at December 31, 2015	130,495	$ 0.60
Granted	—	—
Vested	(40,365)	0.57
Repurchased	—	—
Unvested at March 31, 2016	90,130	0.61

The total fair value of restricted stock that vested during the three months ended March 31, 2016 and 2015 was $0.7 million and $0.6 million, respectively.

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(2) (in thousands)
Outstanding at December 31, 2015	1,802,802	$ 5.88	8.76	$ 37,008
Granted	682,943	15.37		
Exercised	(62,106)	4.34		
Canceled	(28,170)	1.73		
Outstanding at March 31, 2016	2,395,469	$ 8.67	8.76	$ 23,394
Exercisable at March 31, 2016	566,574	$ 4.39	7.81	$ 7,797
Vested and expected to vest at March 31, 2016(1)	2,327,302	$ 8.61	8.75	$ 22,876

(1)Represents the number of vested options as of March 31, 2016, plus the number of unvested options expected to vest as of March 31, 2016 based on a forfeiture rate of 2.5%.

(2)Intrinsic value represents the amount by which the fair market value as of March 31, 2016 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:

	Three Months Ended March 31,	
	2016	2015
Risk-free interest rate	1.59 %	1.65 %
Expected dividend yield	— %	— %
Expected term (years)	6.0	6.0
Expected stock price volatility	76.74 %	86.14 %

The weighted-average grant date fair value of options granted in the three months ended March 31, 2016 and 2015 was $10.29 and $6.45, respectively. The total intrinsic value of options exercised in the three months ended March 31, 2016 and 2015 was $0.4 million and $0.1 million, respectively.

Total stock-based compensation expense recognized for all stock-based compensation awards in the condensed consolidated statements of operations and comprehensive loss is as follows (in thousands):

	Three Months Ended March 31,	
	2016	2015
Research and development	$ 526	$ 392
General and administrative	576	448
Total stock-based compensation expense	$ 1,102	$ 840

At March 31, 2016, the Company had $13.0 million of total unrecognized compensation cost related to non-vested stock awards, which is expected to be recognized over a weighted-average period of 2.77 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.

2015 Employee Stock Purchase Plan

In 2015, the Company's board of directors and stockholders approved the 2015 Employee Stock Purchase Plan (the 2015 ESPP), which became effective upon the closing of the IPO in May 2015. The Company initially reserved a total of 243,347 shares of common stock for issuance under the 2015 ESPP. The 2015 ESPP provides that the number of shares reserved and available for issuance under the 2015 ESPP will be cumulatively increased on January 1 of each calendar year by 1% of the number of shares of common stock issued and outstanding on the immediately preceding December 31 or such lesser amount as specified by the compensation committee of the board of directors. For the calendar year beginning January 1, 2016, the number of shares reserved for issuance under the 2015 ESPP was increased by 271,960 shares. The Company did not issue any shares under the ESPP during the three months ended March 31, 2016.

10. Net Loss per Share

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 as a result of the Company's net loss. 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.

	Three Months Ended March 31,	
	2016	2015
Convertible preferred stock	—	15,467,479
Warrants	—	42,423
Stock options	2,395,469	2,051,628
Unvested restricted stock	90,130	327,800
Total	2,485,599	17,889,330

The weighted average number of common shares used in net loss per share applicable to common stockholders on a basic and diluted basis were 27,087,919 and 1,681,236 for the three months ended March 31, 2016 and 2015, respectively.

11. Commitments

The Company leased its prior corporate headquarters under an operating lease that expired on November 1, 2015. 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 to extend the term of the lease.

On February 12, 2015, the Company entered into a lease for approximately 38,500 rentable square feet of office and laboratory space in Cambridge, Massachusetts, which the Company gained control over on June 15, 2015, and occupancy commenced in October 2015. The lease ends on October 31, 2022. The Company has an option to extend the lease for five additional years. The lease has a total commitment of $17.8 million over the seven year term. The Company has agreed to pay an initial annual base rent of approximately $2.3 million, which rises periodically until it reaches approximately $2.8 million. The Company is recording rent expense on a straight-line basis through the end of the lease term. The Company has recorded deferred rent on the condensed consolidated balance sheet at March 31, 2016, accordingly. The lease provides the Company with an allowance for leasehold improvements of $4.3 million. The Company accounts for leasehold improvement incentives as a reduction to rent expense ratably over the lease term. The balance from the leasehold improvement incentives is included in lease incentive obligations on the balance sheets. The lease agreement required the Company to pay a security deposit of $1.3 million, which is recorded in restricted cash on the Company's balance sheet. For the three months ended March 31, 2016 and 2015, rent expense was $0.6 million and $0.2 million, respectively.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited consolidated financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q and the audited consolidated financial statements and related notes thereto and management's discussion and analysis of financial condition and results of operations included in our Annual Report on Form 10-K for the year ended December 31, 2015, filed with the Securities and Exchange Commission, or the SEC, on March 11, 2016. Some of the information contained in this discussion and analysis or set forth elsewhere in this Quarterly Report on Form 10-Q, including information with respect to our plans and strategy for our business, 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 Quarterly Report on Form 10-Q, our actual results or timing of certain events could differ materially from the results or timing described in, or implied by, these forward-looking statements.

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 diseases in genomically defined patient populations and to craft drug candidates with therapeutic windows that may provide significant and durable clinical responses to patients without adequate treatment options. 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 diseases in genomically defined patient populations, we believe that we will have a more efficient development path with a greater likelihood of success. Leveraging our novel target discovery engine, 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 mutants and PDGFRα D842V, abnormally active receptor tyrosine kinase mutants that are drivers of cancer and proliferative disorders. BLU-285 is currently being developed for patients with systemic mastocytosis, or SM, a myeloproliferative disorder of the mast cells, and defined subsets of patients with gastrointestinal stromal tumor, or GIST, 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, or HCC, the most common type of liver cancer. Both drug candidates have demonstrated proof of concept in pre-clinical models.

In June 2015, July 2015 and September 2015, respectively, the U.S. Food and Drug Administration, or FDA, accepted our Investigational New Drug, or IND, applications for BLU-554 for the treatment of advanced HCC and cholangiocarcinoma, a rare form of cancer that affects the bile ducts, BLU-285 for the treatment of unresectable, treatment-resistant GIST and BLU-285 for the treatment of advanced SM. We have initiated dose-escalation Phase 1 clinical trials for each of these indications and are currently enrolling patients in each of these clinical trials. The dose escalation portion of each Phase 1 clinical trial is designed to enroll three patients in each cohort with the goal of establishing a maximum tolerated dose, or MTD, or a recommended dose if the MTD is not achieved. As of May 9, 2016, the Phase 1 clinical trials for BLU-285 in GIST and BLU-554 in HCC are each enrolling the fifth dose cohort, and the Phase 1 clinical trial for BLU-285 in SM is enrolling the second dose cohort. We expect to report preliminary data for each of these Phase 1 clinical trials by the end of 2016. For each Phase 1 clinical trial, we anticipate that this preliminary data will include safety, pharmacokinetics and pharmacodynamic measures across a range of dose levels and any initial assessments of clinical activity that may be available. In September 2015, the FDA granted orphan drug designation to BLU-554 for the treatment of HCC, and in January 2016, the FDA granted orphan drug designation to BLU-285 for the treatment of GIST and SM.

We are also developing BLU-667, a drug candidate that targets RET, a receptor tyrosine kinase that can become abnormally activated by mutations or translocations, which occurs when a portion of the gene that encodes RET is joined to part of another gene to encode a fusion protein, and RET resistant mutants that we predict will arise from treatment with first generation therapies. 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. RET is a driver of disease in non-small cell lung cancer and cancers of the thyroid, and our research suggests that RET may be a driver of disease in subsets of colon and breast cancer. In pre-clinical studies, BLU6864, a structurally related compound that we identified in the course of developing BLU-667, induced tumor regression in disease models driven

by the primary RET fusion and a predicted secondary on-target resistance mutation. We plan to initiate 28-day Good Laboratory Practice, or GLP, toxicology studies for BLU-667 in the first half of 2016 with the goal of identifying the dose limiting toxicity and anticipated first-in-human dose for BLU-667. We plan to file an IND for BLU-667 by the end of 2016.

In addition, we have identified predicted resistance mutations in the neurotrophic tyrosine receptor kinase, or NTRK, some of which have recently been clinically observed by others. NTRK is believed to be a driver of disease in a broad set of cancers. We have nominated two development candidates for potential clinical development as inhibitors of NTRK and predicted NTRK resistant mutants. Leveraging our novel target discovery engine, we also have initiated efforts for a discovery program for an undisclosed kinase target. We also have a rare genetic disease program that is the subject of our collaboration with Alexion Pharma Holding, or Alexion. In 2016, we expect to begin three of the cancer immunotherapy programs that are the subject of our collaboration with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc., which we collectively refer to as Roche.

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, conducting pre-clinical studies, including GLP toxicology studies and commencing clinical development activities. We do not have any drugs approved for sale and have not generated any revenue from drug sales.

In May 2015, we completed an initial public offering, or IPO, of our common stock, which resulted in the sale of 9,367,708 shares, including 1,221,874 shares sold by us pursuant to the exercise in full by the underwriters of their option to purchase additional shares in connection with the offering, at a price to the public of $18.00 per share. We received gross proceeds of $168.6 million before deducting underwriting discounts and commissions and offering costs paid by us. To date, we have financed our operations primarily through our IPO, private placements of our convertible preferred stock and, to a lesser extent, the research, development and commercialization agreement, or Alexion agreement, that we entered into in March 2015 with Alexion, the collaboration and license agreement, or Roche agreement, that we entered into in March 2016 with Roche and a debt financing. Through March 31, 2016, we have received an aggregate of $356.5 million from such transactions, including $168.6 million in gross proceeds from our IPO, $115.1 million in gross proceeds from the issuance of convertible preferred stock, $17.8 million of upfront and milestone payments from Alexion, a $45.0 million upfront payment from Roche and $10.0 million in gross proceeds from the debt financing.

Since inception, we have incurred significant operating losses. Our net loss was $15.5 million for the three months ended March 31, 2016, $52.8 million for the year ended December 31, 2015, $40.3 million for the year ended December 31, 2014 and $20.9 million for the year ended December 31, 2013. As of March 31, 2016, we had an accumulated deficit of $150.5 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, particularly as we:

- continue the planned clinical development activities for our lead drug candidates, BLU-285 and BLU-554;
- continue to discover, validate and develop additional drug candidates, including BLU-667;
- conduct research and development activities under our collaborations with Alexion and Roche;
- conduct development and commercialization activities for companion diagnostics, including our companion diagnostic with Ventana Medical Systems, Inc., or Ventana, for BLU-554;
- 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.

Collaborations and Partnerships

Alexion

In March 2015, we entered into the Alexion agreement 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, we are responsible for research and pre-clinical development activities related to drug candidates and Alexion is 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 a negotiated yearly rate per full-time equivalent for our employees' time and their associated overhead expenses. We received a $15.0 million non-refundable upfront payment in March 2015 upon execution of the Alexion agreement and are eligible to receive over $250.0 million in payments upon the successful achievement of pre-specified pre-clinical, clinical, regulatory and commercial milestones as follows: (i) up to $6.0 million in pre-clinical milestone payments for the first licensed product, (ii) up to $83.0 million and $61.5 million in development milestone payments for the first and second licensed products, respectively, and (iii) up to $51.0 million in commercial milestone payments for each of the first and second licensed products. We received a $1.75 million payment from Alexion in the second quarter of 2015 and payments of $0.25 million and $0.75 million from Alexion in the first quarter of 2016 following the achievement of three of the first pre-clinical milestones under the Alexion agreement. Alexion will pay us tiered royalties, ranging from mid-single to low-double digit percentages, on a country-by-country and licensed-product-by-licensed-product basis, on worldwide net product sales of licensed products. The royalty term for each licensed product in each country is the period commencing with first commercial sale of such licensed product in such country and ending on the later of (i) the expiration of the last-to-expire valid claim of specified patents covering such licensed product, (ii) the expiration of the applicable regulatory exclusivity period, and (iii) 10 or 15 years from specified commercial sales.

Alexion has the right to terminate the Alexion agreement if we undergo a change of control or become an affiliate of a biotechnology or pharmaceutical company, and may terminate the Alexion agreement at will upon 90 days' prior written notice. We and Alexion have the right to terminate the Alexion agreement in the event of the other party's uncured breach or insolvency, and in certain other circumstances agreed to by the parties.

During the three months ended March 31, 2016, we recognized revenue under the Alexion agreement of $6.6 million, which represents reimburseable research and development costs, a $0.75 million milestone payment, which was recognized upon achievement, as well as a portion of the $15.0 million upfront payment and a $1.75 million milestone payment previously received. We received $3.2 million related to reimbursable research and development costs under the Alexion agreement during the three months ended March 31, 2016. As of March 31, 2016, we have recorded unbilled accounts receivable of $4.2 million related to reimbursable research and development costs under the Alexion agreement for activities performed during the three months ended March 31, 2016.

Roche

In March 2016, we entered into the Roche agreement pursuant to which we and Roche have agreed to collaborate on the discovery, development and commercialization of up to five small molecule therapeutics targeting kinases believed to be important in cancer immunotherapy, as single products or possibly in combination with other therapeutics. The parties have agreed to the targets for three of the collaboration programs, all of which are expected to begin in 2016, and the parties have agreed to work together to use our novel target discovery engine and proprietary compound library to select targets for up to two additional collaboration programs.

Under the Roche agreement, Roche is granted up to five option rights to obtain an exclusive license to exploit products derived from the collaboration programs, or licensed products, in the field of cancer immunotherapy. Such option rights are triggered upon the achievement of Phase 1 proof-of-concept. For up to three of the five collaboration programs, if Roche exercises its option, Roche will receive worldwide, exclusive commercialization rights for the licensed products. For up to two of the five collaboration programs, if Roche exercises its option, we will retain commercialization rights in the United States for the licensed products, and Roche will receive commercialization rights outside of the United States for the licensed products. We will also retain worldwide rights to any products for which

Roche elects not to exercise its applicable option. Prior to Roche's exercise of an option, we will have the lead responsibility for drug discovery and pre-clinical development of all collaboration programs. In addition, we will have the lead responsibility for the conduct of all Phase 1 clinical trials other than those Phase 1 clinical trials for any product in combination with Roche's portfolio of therapeutics, for which Roche will have the right to lead the conduct of such Phase 1 clinical trials. Pursuant to the Roche agreement, the parties will share the costs of Phase 1 development for each collaboration program. In addition, Roche will be responsible for post-Phase 1 development costs for each licensed product for which it retains global commercialization rights, and we and Roche will share post-Phase 1 development costs for each licensed product for which we retain commercialization rights in the United States.

We received an upfront cash payment of $45.0 million in March 2016 upon execution of the Roche agreement, and subject to the terms of the Roche agreement, we will be eligible to receive up to approximately $965.0 million in contingent option fees and milestone payments related to specified research, pre-clinical, clinical, regulatory and sales-based milestones. Of the total contingent payments, up to approximately $215.0 million are for option fees and milestone payments for research, pre-clinical and clinical development events prior to licensing across all five potential collaboration programs, including contingent milestone payments for initiation of each of the collaboration programs for which the parties will work together to select targets. In addition, for any licensed product for which Roche retains worldwide commercialization rights, we will be eligible to receive tiered royalties ranging from low double-digits to high-teens on future net sales of the licensed product. For any licensed product for which we retain commercialization rights in the United States, we and Roche will be eligible to receive tiered royalties ranging from mid-single-digits to low double-digits on future net sales in the other party's respective territories in which it commercializes the licensed product.

Under the Roche agreement, each party has granted the other party specified intellectual property licenses to enable the other party to perform its obligations and exercise its rights under the Roche agreement, including license grants to enable each party to conduct research, development and commercialization activities pursuant to the terms of the Roche agreement. Following Roche's exercise of its option with respect to the collaboration programs for which it will obtain worldwide rights, we will grant Roche an exclusive license under our intellectual property to develop and commercialize the licensed products generated through such collaboration program. Similarly, Roche will grant us an exclusive license under Roche's intellectual property to develop and commercialize licensed products in the United States for the collaboration programs on which we will retain rights in the United States, with Roche receiving a license under our intellectual property to develop and commercialize such licensed products outside of the United States.

Subject to the terms and conditions of the Roche agreement, we have agreed to work exclusively with Roche with respect to each collaboration target, and we have agreed to work exclusively within the field of cancer immunotherapy for a period of up to 30 months after the execution of the Roche agreement. In addition, subject to specified exceptions, Roche has a right of first negotiation in the event that we desire to grant any third party rights to develop or commercialize a licensed product under either of the collaboration programs for which we will retain commercialization rights in the United States. Roche's right of first negotiation will not apply in connection with a change of control of us, an assignment by us in accordance with the terms of the Roche agreement or certain agreements with contract research organizations, contract manufacturing organizations, academic institutions, not-for-profit third parties or distributors.

The Roche agreement will continue until the date when no royalty or other payment obligations are or will become due, unless earlier terminated in accordance with the terms of the Roche agreement. Prior to its exercise of its first option, Roche may terminate the Roche agreement at will, in whole or on a collaboration target-by-collaboration target basis, upon 120 days' prior written notice to us. Following its exercise of an option, Roche may terminate the Roche agreement at will, in whole, on a collaboration target-by-collaboration target basis, on a collaboration program-by-collaboration program basis or, if a licensed product has been commercially sold, on a country-by-country basis, (i) upon 120 days' prior written notice if a licensed product has not been commercially sold or (ii) upon 180 days' prior written notice if a licensed product has been commercially sold. Either party may terminate the Roche agreement for the other party's uncured material breach or insolvency and in certain other circumstances agreed to by the parties. In certain termination circumstances, we are entitled to retain specified licenses to be able to continue to exploit the licensed products.

During the three months ended March 31, 2016, we recognized revenue under the Roche agreement of $0.2 million, which represents a portion of the $45.0 million upfront payment.

Ventana

In March 2016, we entered into a master collaboration agreement and project schedules, which we refer to collectively as the Ventana agreement, with Ventana, a member of the Roche Group. Pursuant to the Ventana agreement, Ventana has agreed to develop and commercialize an assay as a companion diagnostic test to identify HCC patients with aberrantly active FGFR4 signaling as indicated by FGF19 protein overexpression for use with BLU-554. FGF19 is a ligand that activates FGFR4, a kinase that is aberrantly activated and is a driver of disease in a subset of patients with HCC. The parties anticipate using Ventana's investigational immunohistochemistry, or IHC, assay to initially develop the companion diagnostic test. IHC is a process of detecting proteins in tissue cells.

Under the Ventana agreement, Ventana is responsible for developing, and obtaining and maintaining regulatory approvals for, the companion diagnostic test in the United States, specified countries in the European Union, any other countries that recognize the CE/in vitro diagnostic self-registration process and such other countries as the parties may mutually agree. If despite using commercially reasonable efforts Ventana fails, or refuses to seek, obtain or maintain regulatory approvals for, the companion diagnostic test in any country in which Ventana is responsible for obtaining and maintaining regulatory approvals, or in the case of certain specified supply failures or failures to commercialize the companion diagnostic test in any such country, then the parties will negotiate in good faith to select, agree upon and implement one or more alternative arrangements that are reasonably acceptable to the parties for the companion diagnostic test in such country or countries.

Pursuant to the Ventana agreement, the parties will form a joint steering committee comprised of an equal number of representatives from us and Ventana. The joint steering committee will oversee the activities under the Ventana agreement and any project schedule. Upon the request of either party, the joint steering committee will form one or more of the following committees: a joint development committee, joint commercialization committee or joint patent committee.

Under the Ventana agreement, each party has granted the other party specified intellectual property licenses to enable the other party to perform its obligations and exercise its rights under the Ventana agreement, including license grants to enable Ventana to develop and commercialize companion diagnostic tests for use with any of our products that are the subject of the Ventana agreement and to enable us to develop and commercialize its products with any companion diagnostic test developed by Ventana under the Ventana agreement. Certain of the license rights granted by each party generally survive termination of the Ventana agreement. Ventana remains free to develop its companion diagnostic tests for use with a third party's therapeutic products, and we remain free to engage a third party to develop other companion diagnostic tests for use with BLU-554 and any of our other drug candidates.

Subject to the terms of the Ventana agreement, we will pay Ventana an aggregate amount of up to approximately $12.3 million over the term of the development program for the companion diagnostic test for BLU-554. In addition, we will reimburse Ventana for certain pass through costs and will be obligated to pay Ventana up to an additional $2.0 million if we elect to have Ventana perform additional optional validation studies specified in the Ventana agreement. These amounts are subject to adjustment if the parties determine that changes in the scope of the development program are required. In addition, Ventana will retain all proceeds from the commercialization of the companion diagnostic test.

The Ventana agreement will continue until terminated by either party in accordance with its terms. If all projects under the Ventana agreement have been terminated in accordance with the terms of the Ventana agreement, either party may terminate the Ventana agreement for convenience upon 30 days' prior written notice to the other party. We are permitted to terminate any project under the Ventana agreement upon 30 days' prior written notice to Ventana in the event we cease to continue developing or commercializing the applicable product or for convenience and, under specified circumstances, payment of a termination fee and wind-down costs. Ventana is permitted to terminate any project under the Ventana agreement upon 30 or 180 days' prior written notice to us depending on the circumstances of such termination. Either party may terminate the Ventana agreement upon a material breach of the other party that is not cured within 60 days after written notice of such breach or immediately upon the bankruptcy or insolvency of the other party.

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. Our revenue consists of collaboration revenue under the Alexion agreement and Roche agreement, including amounts that are recognized related to upfront payments, milestone payments and amounts due to us for research and development services. In the future, revenue may include additional milestone payments and royalties on any net product sales under the respective collaboration agreements. We expect that any revenue we generate will fluctuate from quarter to quarter as a result of the timing and amount of license fees, research and development reimbursements, payments for manufacturing services, and milestone and other payments.

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, clinical activities and manufacturing on our behalf;
- the cost of consultants;
- the cost of lab supplies and acquiring, developing and manufacturing pre-clinical study and clinical trial 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. In addition, future commercial and regulatory factors beyond our control will impact our clinical development programs and plans.

A significant portion of our research and development expenses have been external expenses, which we track on a program-by-program basis following nomination as a development candidate. Our internal research and development expenses are primarily personnel-related expenses, including stock-based compensation expense. 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 for the three months ended March 31, 2016 and 2015. Pre-development candidate expenses, unallocated expenses and internal research and development expenses have been classified separately.

	Three Months Ended March 31,	
	2016	2015
	(in thousands)	
BLU-285 external expenses	$ 1,641	$ 1,383
BLU-554 external expenses	1,476	1,037
BLU-667 external expenses	1,864	—
Other development candidate expenses	71	—
Pre-development candidate expenses and unallocated expenses	8,256	3,669
Internal research and development expenses	4,327	3,143
Total research and development expenses	$ 17,635	$ 9,232

We expect that our research and development expenses will increase in future periods as we expand our operations and incur additional costs in connection with our clinical trials. These increases will likely include the costs related to the implementation and expansion of clinical trial sites and related patient enrollment, monitoring and program management expenses. In addition, we expect that our research and development expenses will increase in future periods as we incur additional costs in connection with our collaborations with Alexion and Roche.

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 expect that our general and administrative expenses will increase in the future to support continued research and development activities, including as we continue our existing clinical trials and initiate additional 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 the re-measurement gain or loss associated with the change in the fair value of the convertible preferred stock warrant liability and interest expense on amounts outstanding under a loan and security agreement that we entered into with Silicon Valley Bank in May 2013, and amortization of debt discount.

Critical Accounting Policies and Estimates

Our critical accounting policies are those policies that require the most significant judgments and estimates in the preparation of our financial statements. Management has determined that our most critical accounting policies are those relating to revenue recognition, accrued research and development expenses and stock-based compensation. There have been no significant changes to our critical accounting policies discussed in our Annual Report on Form 10-K for the year ended December 31, 2015.

Results of Operations

Comparison of Three Months Ended March 31, 2016 and 2015

The following table summarizes our results of operations for the three months ended March 31, 2016 and 2015, together with the changes in those items in dollars and as a percentage:

	Three Months Ended March 31,		
	2016	2015	Dollar Change
	(in thousands)		
Collaboration revenue	$ 6,856	$ 652	$ 6,204
Operating expenses:			
Research and development	17,635	9,232	8,403
General and administrative	4,646	2,770	1,876
Total operating expenses	22,281	12,002	10,279
Other expense:			
Other expense, net	61	(37)	98
Interest expense	(140)	(185)	45
Total other expense	(79)	(222)	143
Net loss	$ (15,504)	$ (11,572)	$ (3,932)

Collaboration Revenue

Collaboration revenue increased by $6.2 million from $0.7 million for the three months ended March 31, 2015 to $6.9 million for the three months ended March 31, 2016. The increase in collaboration revenue was primarily attributable to increased reimbursable research and development costs under the Alexion agreement and a $0.75 million milestone payment under the Alexion agreement, which was recognized upon achievement, during the three months ended March 31, 2016. Collaboration revenue for the three months ended March 31, 2016 was related to the Alexion agreement and Roche agreement. Collaboration revenue under the Alexion agreement began in March 2015 upon the execution of the Alexion agreement. We entered into the Roche agreement in March 2016. Accordingly, we did not record any collaboration revenue during the three months ended March 31, 2015 under the Roche agreement.

Research and Development Expense

Research and development expense increased by $8.4 million from $9.2 million for the three months ended March 31, 2015 to $17.6 million for the three months ended March 31, 2016. The increase in research and development expense was primarily attributable to the following:

- approximately $2.6 million in increased expenses associated with clinical manufacturing activities;
- approximately $2.4 million in increased expenses associated with continuing to build our platform and advance our discovery pipeline, including costs associated with development of BLU-667 and costs related to the Alexion agreement;
- approximately $1.7 million in increased personnel expense primarily due to a 40% increase in headcount, largely driven by growth in the clinical and non-clinical organizations as we advanced our lead drug candidates, BLU-285 and BLU-554, into clinical trials, as well as higher stock-based compensation expense; and
- approximately $1.4 million in increased expenses for external clinical activities as we advanced our lead drug candidates, BLU-285 and BLU-554, into clinical trials.

We expect that our research and development expense will increase in future periods as we expand our operations and incur additional costs in connection with our clinical trials. These increases will likely include the costs related to the implementation and expansion of clinical trial sites and related patient enrollment, monitoring and program management expenses. In addition, we expect that our research and development expense will increase in future periods as we incur additional costs in connection with our collaborations with Alexion and Roche.

General and Administrative Expense

General and administrative expense increased by $1.8 million from $2.8 million for the three months ended March 31, 2015 to $4.6 million for the three months ended March 31, 2016. The increase in general and administrative expense was primarily attributable to the following:

- approximately $0.8 million in increased personnel costs primarily due to an increase of 75% in business personnel headcount to support our overall growth as a publicly traded company as well as an increase in stock-based compensation expense; and
- approximately $0.7 million in increased professional fees, including external legal fees, insurance premiums, corporate communications, public relations fees and recruiting 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), net, increased by $0.1 million from less than $0.1 million of expense for the three months ended March 31, 2015 to less than $0.1 million of income for the three months ended March 31, 2016. The increase in other income (expense), net, was primarily related to the recognition of investment income during the three months ended March 31, 2016 as well as the impact of the re-measurement associated with the change in the fair value of the convertible preferred stock warrant liability included in the prior year.

Interest Expense

Interest expense decreased by less than $0.1 million from $0.2 million for the three months ended March 31, 2015 to $0.1 million for the three months ended March 31, 2016. The decrease was primarily related to a decrease in interest expense for the three months ended March 31, 2016 under the loan and security agreement with Silicon Valley Bank. We expect that interest expense will continue to decrease in subsequent periods as the principal amount under the loan decreases.

Liquidity and Capital Resources

Sources of Liquidity

To date, we have financed our operations primarily through our IPO, private placements of our convertible preferred stock and, to a lesser extent, the Alexion agreement, the Roche agreement and a debt financing. Through March 31, 2016, we have received an aggregate of $356.5 million from such transactions, including $168.6 million in gross proceeds from our IPO, $115.1 million in gross proceeds from the issuance of convertible preferred stock, $17.8 million of upfront and milestone payments from Alexion, a $45.0 million upfront payment from Roche and $10.0 million in gross proceeds from the debt financing.

As of March 31, 2016, we had cash, cash equivalents and investments of $191.5 million.

Cash Flows

The following table provides information regarding our cash flows for the three months ended March 31, 2016 and 2015:

	Three Months Ended March 31,	
(in thousands)	**2016**	**2015**
Net cash provided by operating activities	$ 30,751	$ 4,890
Net cash used in investing activities	(70,365)	(1,285)
Net cash used in financing activities	(804)	(547)
Net (decrease) increase in cash and cash equivalents	$ (40,418)	$ 3,058

Net Cash Provided by Operating Activities. Net cash provided by operating activities was $30.8 million during the three months ended March 31, 2016 compared to net cash provided by operating activities of $4.9 million during the three months ended March 31, 2015. The increase in cash provided by operating activities was primarily due to changes in deferred revenue related to the timing and amount of upfront payments from Alexion and Roche. In the three months ended March 31, 2016, we received a $45.0 million upfront payment from Roche, and in the three months ended March 31, 2015, we received a $15.0 million upfront payment from Alexion.

Net Cash Used in Investing Activities. Net cash used in investing activities was $70.4 million during the three months ended March 31, 2016 compared to net cash used in investing activities of $1.3 million during the three months ended March 31, 2015. Net cash used in investing activities for the three months ended March 31, 2016 consisted primarily of purchases of investments by us. We classify these investments as available-for-sale and record them at fair value in the accompanying condensed consolidated balance sheets. Net cash used in investing activities for the three months ended March 31, 2015 consisted of a security deposit payment for our new office lease agreement.

Net Cash Used in Financing Activities. Net cash used in financing activities was $0.8 million during the three months ended March 31, 2016 compared to net cash used in financing activities of $0.5 million during the three months ended March 31, 2015. Net cash used in financing activities for the three months ended March 31, 2016 and 2015 was primarily due to principal payments under the loan and security agreement with Silicon Valley Bank.

Borrowings

In May 2013, we entered into the loan and security agreement with Silicon Valley Bank. 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. During the year ended December 31, 2015, we paid principal payments of $1.8 million on the first $10.0 million of advances, and during the three months ended March 31, 2016, we paid principal payments of $0.8 million on the first $10.0 million of advances. 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 March 31, 2016, we had $6.6 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.

See Note 7, “Term Loan,” in the accompanying notes to our unaudited condensed consolidated financial statements for additional information.

Funding Requirements

We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development of, continue and 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, 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.

As of March 31, 2016, we had cash, cash equivalents and investments of $191.5 million. We expect that our existing cash, cash equivalents and investments will be sufficient to enable us to fund our operating expenses and capital expenditure requirements until late 2017. 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 studies 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. At this time, we do not have any committed external source of funds outside of those to be earned in connection with our agreements with Alexion and Roche. 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

In March 2016, we entered into the Ventana agreement pursuant to which Ventana has agreed to develop and commercialize the companion diagnostic for BLU-554 that we expect to use to identify HCC patients with aberrantly active FGFR4 signaling as indicated by FGF19 overexpression. Subject to the terms of the Ventana agreement, we will pay Ventana an aggregate amount of up to approximately $12.3 million over the term of the development program for the companion diagnostic test for BLU-554. In addition, we will reimburse Ventana for certain pass through costs and will be obligated to pay Ventana up to an additional $2.0 million if we elect to have Ventana perform additional optional validation studies specified in the Ventana agreement. These amounts are subject to adjustment if the parties determine that changes in the scope of the development program are required. See “—Collaborations and Partnerships—Ventana” above for additional information on the Ventana agreement.

As of March 31, 2016, there have been no other material changes to our contractual obligations and commitments from those described under “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in the Annual Report on Form 10-K for the year ended December 31, 2015.

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 SEC rules.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

As of March 31, 2016, we had cash, cash equivalents and investments of $191.5 million, consisting primarily of money market funds and investments in U.S. treasury obligations.

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 are in short-term marketable securities. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, we believe an immediate 10% change in interest rates would not have a material effect on the fair market value of our investment portfolio. We have the ability to hold our investments until maturity, and therefore, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a change in market interest rates on our investment portfolio.

We are also exposed to market risk related to changes in foreign currency exchange rates. From time to time, 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 March 31, 2016 and 2015, 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 three months ended March 31, 2016 and 2015.

Item 4. Controls and Procedures

Management's Evaluation of our Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms and (2) accumulated and communicated to our management, including our principal executive and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their control objectives.

Our management, with the participation of our Chief Executive Officer and Vice President of Finance (our principal executive officer and principal financial officer, respectively), evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2016. Based upon such evaluation, our Chief Executive Officer and Vice President of Finance have concluded that, as of March 31, 2016, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three months ended March 31, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

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

Item 1A. Risk Factors

The following risk factors and other information included in this Quarterly Report on Form 10-Q should be carefully considered. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we presently deem less significant may also impair our business operations. Please see page 3 of this Quarterly Report on Form 10-Q for a discussion of some of the forward-looking statements that are qualified by these risk factors. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected.

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 and commencing Phase 1 clinical trials for our most advanced drug candidates, BLU-285 and BLU-554.

In June 2015, July 2015 and September 2015, respectively, the U.S. Food and Drug Administration, or FDA, accepted our Investigational New Drug, or IND, applications for BLU-554 for the treatment of advanced hepatocellular carcinoma, or HCC, and cholangiocarcinoma, BLU-285 for the treatment of unresectable, treatment-resistant gastrointestinal stromal tumor, or GIST, and BLU-285 for the treatment of advanced systemic mastocytosis, or SM. We have initiated dose-escalation Phase 1 clinical trials for each of these indications and are currently enrolling patients in each of these clinical trials. In September 2015, the FDA granted orphan drug designation to BLU-554 for the treatment of HCC, and in January 2016, the FDA granted orphan drug designation to BLU-285 for the treatment of GIST and SM. 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 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. 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. In May 2015, we completed an initial public offering, or IPO, of our common stock, which resulted in the sale of 9,367,708 shares, including 1,221,874 shares sold by us pursuant to the exercise in full by the underwriters of their option to purchase additional shares in connection with the offering, at a price to the public of $18.00 per share, resulting in gross proceeds of $168.6 million before deducting underwriting discounts and commissions and offering costs paid by us. To date, we have financed our operations primarily through our IPO, private placements of our convertible preferred stock and, to a lesser extent, the research, development and commercialization agreement, or Alexion agreement, that we entered into in March 2015 with Alexion Pharma Holding, or Alexion, the collaboration and license agreement, or Roche agreement, that we entered into in March 2016 with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc., or collectively, Roche, and a debt

financing. Through March 31, 2016, we have received an aggregate of $356.5 million from such transactions, including $168.6 million in gross proceeds from our IPO, $115.1 million in gross proceeds from the issuance of convertible preferred stock, $17.8 million of upfront and milestone payments from Alexion, a $45.0 million upfront payment from Roche and $10.0 million in gross proceeds from the debt financing. As of March 31, 2016, we had cash, cash equivalents and investments of $191.5 million.

We have incurred net losses in each year since our inception, and as of March 31, 2016, we had an accumulated deficit of $150.5 million. Our net loss was $15.5 million for the three months ended March 31, 2016, $52.8 million for the year ended December 31, 2015, $40.3 million for the year ended December 31, 2014 and $20.9 million for the year ended December 31, 2013. 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 continuing our existing clinical trials and beginning additional clinical trials. In addition, if we obtain marketing approval for our drug candidates, we will incur significant sales, marketing and outsourced-manufacturing expenses. As a public company, we will continue to 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 pharmaceuticals, 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.

We may 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 pharmaceuticals is capital-intensive. We are currently advancing our lead drug candidates, BLU-285 and BLU-554, through clinical development. We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development of, initiate or continue 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, Roche or other collaborators. We may also need to raise additional funds sooner if

we choose to pursue additional indications or geographies for our drug candidates or otherwise expand more rapidly than we presently anticipate. Furthermore, we expect to continue 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.

As of March 31, 2016, we had cash, cash equivalents and investments of $191.5 million. We expect that our existing cash, cash equivalents and investments will be sufficient to enable us to fund our operating expenses and capital expenditure requirements until late 2017. 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 collaborations with Alexion and Roche;
- 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 and 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, 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 public and private equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds, other than our collaborations with Alexion and Roche, each of which is limited in scope and duration, and funds already borrowed under the loan and security agreement that we entered into with Silicon Valley Bank in May 2013. 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.

Risks Related to Drug Development and Regulatory Approval

We are very early in our development efforts with only two drug candidates, BLU-285 and BLU-554, in clinical development. All of our other drug candidates are currently in pre-clinical or earlier stages of development. If we are unable to advance our other drug candidates to clinical development, obtain regulatory approval for our lead drug candidates or other drug candidates and ultimately commercialize our lead drug candidates or other drug candidates, or experience significant delays in doing so, our business will be materially harmed.

We are very early in our development efforts with only two drug candidates, BLU-285 and BLU-554, in clinical development. All of our other drug candidates are currently in pre-clinical or earlier stages of development. 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 or 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. For example, we have entered into an agreement with Ventana Medical Systems, Inc., or Ventana, to develop and commercialize a companion diagnostic for BLU-554 in order to identify HCC patients with aberrantly active FGFR4 signaling as indicated by FGF19 overexpression. Companion diagnostics are subject to regulation as medical devices and must themselves be approved for marketing by the FDA or certain other foreign regulatory agencies before we may commercialize our drug candidates. The success of our lead drug candidates and other drug candidates will depend on several factors, including the following:

- successful enrollment in, and completion of, clinical trials, including our current Phase 1 clinical trials for BLU-285 and BLU-554;
- successful completion of pre-clinical studies for our other drug candidates;
- approval of INDs for future clinical trials for our other drug candidates;
- successful development of companion diagnostics for use with our drug candidates, including the development of a companion diagnostic for BLU-554 for identifying HCC patients with FGF19 signaling and BLU-285 for identifying GIST patients with the PDGFRα D842V mutation;
- 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.

Each of our lead drug candidates, BLU-285 and BLU-554, is in clinical development, and all of our other drug candidates are in pre-clinical development. The risk of failure for our lead drug candidates and other drug candidates 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, current Phase 1 clinical trials and future clinical trials may not be successful.

We have initiated dose-escalation Phase 1 clinical trials for BLU-285 for the treatment of unresectable, treatment-resistant GIST, BLU-554 for the treatment of advanced HCC and cholangiocarcinoma and BLU-285 for the treatment of advanced SM.

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 the European Union 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 for our lead drug candidates will 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;
- 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; and

- the FDA or other regulatory authorities may require us to submit additional data or impose other requirements before permitting us to initiate a clinical trial.

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.

We may choose not to develop a potential product candidate, or we may suspend or terminate one or more discovery programs or pre-clinical drug candidates or programs.

At any time and for any reason, we may determine that one or more of our discovery programs or pre-clinical drug candidates or programs does not have sufficient potential to warrant the allocation of resources toward such program or drug candidate. Accordingly, we may choose not to develop a potential drug candidate or elect to suspend or terminate one or more of our discovery programs or pre-clinical drug candidates or programs. If we suspend or terminate a program or drug candidate in which we have invested significant resources, we will have expended resources on a program that will not provide a full return on our investment and may have missed the opportunity to have allocated those resources to potentially more productive uses, including existing or future programs or drug candidates.

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 diseases in genomically defined patient populations, 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 size of the target patient population;
- the eligibility criteria for the clinical trial;
- 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.

Because the target patient populations for our drug candidates are relatively small, it may be difficult to successfully identify patients, which may lead to delays in enrollment for our trials. If the market opportunities for our drug candidates are smaller than we believe they are, our product revenues may be adversely affected and our business may suffer.

We focus our research and product development on treatments for cancer and rare genetic diseases, including genomically defined cancer and diseases driven by abnormal kinase activation. Because the target patient populations for our drug candidates are relatively small, including our lead drug candidates BLU-285 and BLU-554, it may be difficult to successfully identify patients. We have entered into an agreement with Ventana to develop and commercialize a companion diagnostic for BLU-554 in order to identify HCC patients with aberrantly active FGFR4 signaling as indicated by FGF19 overexpression, and we intend to engage third parties to develop companion diagnostics for use in some of our other clinical trials. However, Ventana or other third parties may not be successful in developing such companion diagnostics, furthering the difficulty in identifying patients for our clinical trials. Our inability to enroll a sufficient number of patients in 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. If we are unable to include patients with the driver of the disease, including the applicable genomic alteration for diseases in genomically defined patient populations, 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. In addition, 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. These estimates may prove to be incorrect, and new studies may reduce the estimated incidence or prevalence of these diseases. The number of patients in the United States, European Union and elsewhere may turn out to be lower than expected, may not be otherwise amenable to treatment with our products or patients may become increasingly difficult to identify and access, all of which would adversely affect our business, prospects and ability to achieve or sustain profitability.

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, including the companion diagnostic that we are developing with Ventana for BLU-554 in order to identify HCC patients with aberrantly active FGFR4 signaling as indicated by FGF19 overexpression, 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, including the companion diagnostic for BLU-554 that we are developing with Ventana. 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 for a drug candidate, Pre-Market Approval, or PMA, application for a companion diagnostic 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. As is the case with all oncology drugs, it is likely that there may be side effects associated with the use of our drug candidates. 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.

While we have received orphan drug designation for our lead drug candidates, BLU-285 and BLU-554 for specified indications, we may seek orphan drug designation for some of our other drug candidates. However, we may be unsuccessful in obtaining or may be unable to maintain the benefits associated with orphan drug designation, including the potential for market exclusivity.

In September 2015, the FDA granted orphan drug designation to BLU-554 for the treatment of HCC, and in January 2016, the FDA granted orphan drug designation to BLU-285 for the treatment of GIST and SM. As part of our business strategy, we may seek orphan drug designation for some of our other drug candidates, and we may be unsuccessful. Regulatory authorities in some jurisdictions, including the United States and the European Union, 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 the European Union, the European Commission grants orphan drug designation after receiving the opinion of the European Medicines Agency's, or EMA, Committee for Orphan Medicinal Products on an orphan drug designation application. Orphan drug designation is intended 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 the European Union 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). In addition, 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 the European Union would be sufficient to justify the necessary investment in developing the drug. In the European Union, 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 the European Union. The European Union 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 designated 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. 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 other drug candidates in addition to BLU-554 for the treatment of HCC and BLU-285 for the treatment of GIST and SM, we may never receive such designations. Even if we receive orphan drug designation for any of our drug candidates, 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. In addition, 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 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 marketing 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 of diseases in genomically defined patient populations 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) 4,300 addressable patients with advanced forms of SM, including smoldering 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 PDGFRα 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 as indicated by FGF19 overexpression 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 PDGFRα D842V mutation, it may face competition from other drug candidates in development for these indications, including drug candidates in development by AB Science S.A., AROG Pharmaceuticals, Inc., ARIAD Pharmaceuticals, Inc., Deciphera Pharmaceuticals, LLC, Kolltan Pharmaceuticals, Inc., Novartis AG and Plexxikon Inc., a wholly-owned subsidiary of Daiichi Sankyo Company, Limited. 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, BLU-554 may face competition from other drug candidates in development by AstraZeneca plc, Bayer AG, Celgene Corporation, Eisai Inc., H3 Biomedicine Inc., Johnson & Johnson, Novartis AG, Sanofi S.A., Taiho Pharmaceutical Co., Ltd. and Xoma Ltd. If BLU-667 receives marketing approval for patients with RET or mutations, it may face competition from other drug candidates in development, including drug candidates in development by ARIAD Pharmaceuticals, Inc., AstraZeneca plc, Eisai Inc., Exelixis, Inc., GlaxoSmithKline plc, Ignyta, Inc., Loxo Oncology, Inc., Mirati Therapeutics, Inc., Novartis AG, Pfizer Inc. and Roche.

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 later-stage 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, including Ventana, 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 entered into an agreement with Ventana to develop and commercialize a companion diagnostic for BLU-554 in order to identify HCC patients with aberrantly active FGFR4 signaling as indicated by FGF19 overexpression, but we have not yet initiated development and commercialization of this companion diagnostic or companion diagnostics for any of our other programs. We have little experience in the development and commercialization of companion diagnostics and may not be successful in developing and commercializing appropriate

companion 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 companion diagnostics, we expect to rely on Ventana to design, manufacture, obtain regulatory approval for and commercialize the companion diagnostic for BLU-554 in order to identify HCC patients with aberrantly active FGFR4 signaling as indicated by FGF19 overexpression, and we expect to rely in whole or in part on other third parties to design, manufacture, obtain regulatory approval for and commercialize any other companion diagnostics for our drug candidates. We and our collaborators, including Ventana, may encounter difficulties in developing and obtaining approval for the companion diagnostics, including issues relating to selectivity/specificity, analytical validation, reproducibility, or clinical validation. In addition, our collaborators for any companion diagnostic that we may seek to develop, our collaborators, including Ventana:

- may not perform their respective obligations as expected or as required under our agreements with them;
- may not pursue commercialization of a companion diagnostic test even if it receives any required regulatory approvals;
- may elect not to continue the development of a companion diagnostic test based on changes in their or other third parties' strategic focus or available funding, or external factors such as an acquisition, that divert resources or create competing priorities;
- may not commit sufficient resources to the marketing and distribution of the a companion diagnostic test; and
- may terminate their relationship with us.

Any delay or failure by us or our collaborators, including Ventana, 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, including Ventana, 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, including Ventana, 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 or 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 countries in the European Union, 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 collaborations with Alexion and Roche, as well as 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 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 rely on medical institutions, clinical investigators, CROs, contract laboratories and other third parties to conduct or otherwise support clinical trials for our drug candidates. We rely heavily on these parties for execution of clinical trials for our drug candidates and control only certain aspects of their activities. Nevertheless, we are 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 are 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 our current or future clinical trials 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 current or 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 clinical trials, and we expect to continue to do so for 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 patents 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, composition of matter for inhibitors of the predicted RET resistant mutants, composition of matter for inhibitors of predicted NTRK resistant mutants, composition of matter for inhibitors of a rare genetic disease target, as well as methods of use for these novel compounds. The issued patent directed to BLU-554 composition of matter has a statutory expiration date in 2033, the issued patent directed to BLU-285 composition of matter has a statutory expiration date in 2034 and any patents issuing from our pending patent applications are projected to expire between 2034 and 2036.

As of April 30, 2016, we owned one patent, six pending U.S. patent applications, 25 pending foreign patent applications in a number of jurisdictions, including Australia, Argentina, Brazil, Bolivia, Canada, China, the European Union, Israel, India, Japan, Mexico, New Zealand, Pakistan, Russia, South Africa, South Korea, Taiwan and Venezuela, and two pending Patent Cooperation Treaty, or PCT, patent applications directed to our KIT program, including BLU-285. Any U.S. or 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 April 30, 2016, we owned two issued U.S. patents, three pending U.S. patent applications, 43 foreign patent applications in a number of jurisdictions, including Australia, Brazil, Canada, China, the European Union, Israel, India, Japan, South Korea, Mexico New Zealand, Russia, South Africa, and one pending PCT patent application directed to our FGFR4 program, including BLU-554. Any U.S. or 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 April 30, 2016, we owned one PCT application and two provisional U.S. patent applications directed to our RET program, which, if issued, will have statutory expiration dates of 2036. As of April 30, 2016, we owned two provisional U.S. patent applications directed to NTRK, which, if issued, will have statutory expiration dates of 2036. As of April 30, 2016, we owned one provisional U.S. patent application directed to a rare genetic disease target which, if issued, will have a statutory expiration date of 2037.

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 April 30, 2016, we owned two U.S. patent applications, two European Union patent applications and eight pending PCT patent applications directed to this technology, which, if issued, will have statutory expiration dates ranging from 2034 to 2035.

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. For example, we are aware of a U.S. patent owned by a third party that has generic composition of matter claims that could cover BLU-554. While we may decide to initiate proceedings to challenge the validity of this patent in the future, we may be unsuccessful, and courts or patent offices in the United States and abroad could uphold the validity of any such patent.

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. For example, we are aware of a U.S. patent application owned by a third party that has generic composition of matter claims that could cover BLU-554.

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. In addition, 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. In addition, 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, business development and financial expertise of Jeffrey W. Albers, our President and Chief Executive Officer, Anthony L. Boral, our Chief Medical Officer, Christoph Lengauer, our Chief Scientific Officer, Kathryn Haviland, our Chief Business Officer, and Michael Landsittel, our Vice President of Finance, as well as the other principal members of our management, scientific and clinical team. Although we have entered into employment agreements with our executive officers, other than Mr. Landsittel, each of our executive officers 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.

We expect to continue hiring qualified development personnel. Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will 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 key employees and executive officers 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 April 30, 2016, we had 85 full-time employees, and in connection with operating as 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 have adopted 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. In addition, 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

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

As a public company, we have incurred and expect to continue to incur, particularly after we are no longer an "emerging growth company," 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 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 has been and may in the future be volatile and fluctuate substantially.

Our stock price has been and in the future may be subject to substantial volatility. In addition, the stock market in general, and NASDAQ listed and biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. For example, our stock traded within a range of a high price of $37.17 and a low price of $13.04 per share for the period beginning on April 30, 2015, our first day of trading on The NASDAQ Global Select Market, through May 9, 2016. As a result of this volatility, our stockholders could incur substantial losses. In addition, 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.

These and other market and industry factors may cause the market price and demand for our common stock to fluctuate substantially, regardless of our actual operating performance, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In the past, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. Such a lawsuit could also divert the time and attention of our management.

An active trading market for our common stock may not be sustained, and investors may not be able to resell their shares at or above the price they paid.

Although we have listed our common stock on The NASDAQ Global Select Market, an active trading market for our shares may not be sustained. 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 price at which they acquired their shares or at the time that they would like to sell. An inactive trading market may also impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

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

The trading market for our common stock relies in part on the research and reports that equity research analysts publish about us or our business. We do not control these analysts. 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 common stock, the price of our common stock could decline. If one or more of these analysts cease to cover our common stock, we could lose visibility in the market for our common stock, which in turn could cause our common stock price to decline.

Our executive officers, directors, principal stockholders and their affiliates maintain the ability to exercise significant influence over our company and all matters submitted to stockholders for approval.

The holdings of our executive officers, directors and stockholders who own more than 5% of our outstanding common stock, together with their affiliates and related persons, represent beneficial ownership, in the aggregate, of approximately 50% of our common stock, based on the number of shares of our common stock outstanding as of March 31, 2016. As a result, these stockholders, if they choose to act together, will be able to influence our management and affairs and 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. This concentration of voting power could delay or prevent an acquisition of our company on terms that other stockholders may desire.

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.

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.

Future sales of our common stock, including by us or our directors and executive officers or shares issued upon the exercise of currently outstanding options, could cause our stock price to decline.

A substantial portion of our outstanding common stock can be traded without restriction at any time. In addition, a portion of our outstanding common stock is currently restricted as a result of federal securities laws, but can be sold at any time subject to applicable volume limitations. As such, sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, by us or others, could reduce the market price of our common stock or impair our ability to raise adequate capital through the sale of additional equity securities. In addition, we have a significant number of shares that are subject to outstanding options. The exercise of these options and the subsequent sale of the underlying common stock could cause a further decline in our stock price. These sales also might make it difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. We cannot predict the size of future issuances or the effect, if any, that any future issuances may have on the market price for our common stock.

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) December 31, 2020; (ii) the last day of the fiscal year in which we have total annual gross revenues of $1 billion or more; (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.

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. In addition, under the loan and security agreement with Silicon Valley Bank, 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 shifts in our stock ownership, some of which are outside our control. As of December 31, 2015, we had federal net operating loss carryforwards of approximately $123.9 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 us.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities

The following table provides information relating to our repurchase of shares of our common stock during the three months ended March 31, 2016.

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share ($) (2)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (3)	Maximum Number (or Approximate Dollar Value) of Shares that May Yet be Purchased Under the Plans or Programs (3)
January 1 - January 31	—	$ —	—	—
February 1 - February 29	—	—	—	—
March 1 - March 31	367	18.19	—	—
Total	367	$ 18.19	—	—

(1) The shares of common stock were repurchased in connection with the satisfaction of employee tax withholding obligations on equity incentive awards.

(2) The repurchase price for all shares of common stock was equal to the price per share initially paid by the recipient.

(3) We presently have no publicly announced share repurchase plan or program.

Use of Proceeds from Initial Public Offering of Common Stock

On May 5, 2015, we completed an IPO of our common stock, which resulted in the sale of 9,367,708 shares, including 1,221,874 shares sold by us pursuant to the exercise in full by the underwriters of their option to purchase additional shares in connection with the offering, at a price to the public of $18.00 per share. The offer and sale of all of the shares in our IPO was registered under the Securities Act of 1933, as amended, or Securities Act, pursuant to a registration statement on Form S-1 (File No. 333-202938), which was declared effective by the SEC on April 29, 2015. Following the sale of the shares in connection with the closing of our IPO, the offering terminated. The offering did not terminate until the sale of all of the shares offered. Goldman, Sachs & Co. and Cowen and Company acted as joint book-running managers for the offering. JMP Securities acted as a co-manager for the offering. Wedbush PacGrow also acted as a co-manager for the offering.

We received approximately $154.8 million in net proceeds after deducting underwriting discounts and commissions and offering costs paid by us. As of March 31, 2016, we estimate that we have used approximately $58.0 million of the net proceeds from the offering as follows: approximately $10.5 million of external costs to fund our Phase 1 clinical trials for BLU-285 and BLU-554; approximately $16.3 million of external costs for new and ongoing research activities; approximately $12.2 million of internal research and development costs; and approximately $19.0 million for working capital and other general corporate purposes. None of the offering expenses consisted of direct or indirect payments made by us to directors, officers or persons owning 10% or more of our common stock or to their associates, or to our affiliates, and we have not used any of the net proceeds from the offering to make payments, directly or indirectly, to any such persons. There has been no material change in the planned use of the net proceeds from our IPO as described in our final prospectus filed with the SEC on April 30, 2015 pursuant to Rule 424(b)(4) under the Securities Act. We have invested the unused proceeds from the offering in cash equivalents in accordance with our investment policy.

Item 6. Exhibits

The exhibits filed as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index, which is incorporated herein by reference.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BLUEPRINT MEDICINES CORPORATION

Date: May 10, 2016

By: /s/ Jeffrey W. Albers
Jeffrey W. Albers
President, Chief Executive Officer and Director (Principal Executive Officer)

Date: May 10, 2016

By: /s/ Michael Landsittel
Michael Landsittel
Vice President of Finance
(Principal Financial and Accounting Officer)

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
10.1†*	Master Collaboration Agreement, effective March 1, 2016, by and between Ventana Medical Systems, Inc. and the Registrant, including Project Schedule #1, effective March 1, 2016, and Project Schedule #2, effective March 11, 2016
10.2†*	Collaboration and License Agreement, effective March 14, 2016, by and among F. Hoffmann-La Roche Ltd, Hoffmann-La Roche Inc. and the Registrant, as amended by Amendment to Collaboration and License Agreement, effective April 15, 2016
31.1*	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1+	Certifications of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

† Confidential treatment requested as to portions of the exhibit. Confidential materials omitted and filed separately with the Securities and Exchange Commission.

* Filed herewith.

+ The certifications furnished in Exhibit 32.1 hereto are deemed to be furnished with this Quarterly Report on Form 10-Q and will not be deemed to be “filed” for purposes of Section 18 of the Exchange Act. Such certifications will not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Registrant specifically incorporates it by reference.

*****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**

Execution Draft

MASTER COLLABORATION AGREEMENT

This Master Collaboration Agreement (this "Agreement") is effective March 1, 2016, (the "Effective Date"), by and between Ventana Medical Systems, Inc., a Delaware corporation with offices located at 1910 E. Innovation Park Drive, Tucson, AZ 85755 USA ("Ventana"), and Blueprint Medicines Corporation, a Delaware corporation with offices located at 38 Sidney Street, Suite 200, Cambridge, MA 02139 USA ("Blueprint").

Whereas, Ventana is engaged in the business of research, development, manufacture and Commercialization of *in vitro*, complementary and companion diagnostics in relation to the pharmaceutical industry;

Whereas, Blueprint is engaged in the research, development, manufacture and Commercialization of pharmaceutical and biological products and methods to treat patients with pharmaceutical products;

Whereas, from time to time Blueprint wishes to engage Ventana on the following terms and conditions in relation to one or more projects connected with the creation of *in vitro*, complementary or companion diagnostics for one or more Blueprint Products; and

Whereas, from time to time Ventana wishes to engage Blueprint on the following terms and conditions in connection with such projects.

Now, therefore, the Parties agree as follows:

1. DEFINITIONS

In this Agreement the following terms, when capitalized, shall have the following meanings:

1.1. "AAA" has the meaning set forth in Section 15.2.

1.2. "Activities" means the activities to be performed by either Party under a particular Project Schedule.

1.3. "Affiliate" shall mean: (i) an organization, which directly or indirectly controls a Party to this Agreement, (ii) an organization, which is directly or indirectly controlled by a Party to this Agreement, and (iii) an organization which is controlled directly or indirectly by the ultimate parent company of a Party, where "control" as per (i) to (iii) is defined as owning fifty percent or more of the voting stock of a company or by having otherwise the power to govern the financial and the operating policies or to appoint the management of an organization. With respect to Ventana, the term "Affiliate" shall include neither Chugai nor Foundation (nor their respective subsidiaries) unless Ventana opts for such inclusion of Chugai or Foundation by giving written notice to Blueprint.

1.4. "Agreement" has the meaning set forth in the first paragraph of this Agreement.

1.5. "Annotated Data" means patient information associated with each Sample provided by or on behalf of Blueprint to Ventana for use in a Project under this Agreement; all such Annotated Data shall be Highly Sensitive Data of Blueprint.

1.6. "Applicable Laws" means all applicable laws, statutes, rules, regulations and other pronouncements having the effect of law of any federal, national, multinational, state, provincial, county,

city or other political subdivision, agency or other body, domestic or foreign, including any applicable rules, regulations, guidelines, or other requirements of the regulatory authorities that may be in effect from time to time.

1.7. "Assay" means an assay, which may be "*Research Use Only*" assay in a pre-clinical setting, or which may be an IVD, a complementary diagnostic, or a companion diagnostic (or an investigational or prototype version of the foregoing) that is directed to one or more Biomarkers, and shall include any biological materials, associated reagents, procedures, instrumentation and/or software necessary to perform the Assay, but shall exclude any Samples that the Assay is intended to test.

1.8. "Background Intellectual Property" means Intellectual Property, which is Controlled by a Party or its Subsidiaries, and (i) is in existence as of the effective date of the respective Project Schedule, or (ii) is conceived, discovered, reduced to practice or writing, generated or developed by such Party or its Subsidiaries, or otherwise coming into the Control of a Party or its Subsidiaries, during the Term independently of the respective Project, excluding Inventions and Project Results.

1.9. "Biomarker" means one or more specific genes, genetic sequences, proteins or biomarkers.

1.10. "Biomarker Data" means data (or the results of analysis thereof) consisting of determinations of genomic alterations or variations that is derived from Samples or Clinical Trials using a Ventana Assay in the course of Development Activities performed under any Project Schedule, including any such data with respect to the relationship of a Biomarker to the presence, absence or risk of a specific disease or condition. Biomarker Data shall not include any Clinical Outcomes Data or other data pertaining to the Blueprint Compound.

1.11. "BLA" or "Biologics License Application" is a request for permission to introduce, or deliver for introduction, a biologic product into interstate commerce pursuant to the FD&C Act.

1.12. "Blueprint Background Intellectual Property" means Background Intellectual Property in the Diagnostic Field which is Controlled by Blueprint (or a Blueprint Subsidiary) consisting of Know-How about an Assay or Biomarker that relates to the Blueprint Product that is necessary for the performance by Ventana of Activities under a particular Project Schedule, excluding, for clarity, any Inventions, Project Results and Specific Diagnostic Intellectual Property.

1.13. "Blueprint Compound" means: (i) a biological or chemical substance that is the active ingredient used or contained in a therapeutic product that is identified as the subject of a Project Schedule, and (ii) backup compounds to (i); […***…].

1.14. "Blueprint Indemnitee" has the meaning set forth in Section 14.1.

1.15. "Blueprint Inventions" has the meaning set forth in Section 8.4.

1.16. "Blueprint Product" means any pharmaceutical product containing a Blueprint Compound.

1.17. "Blueprint Project Results" has the meaning set forth in Section 8.2.

1.18. "Blueprint Trademark Rights" means any Trademark Rights used by Blueprint or its Affiliates in connection with the commercialization of the Blueprint Product (other than the Trademark Rights or corporate names Controlled by Ventana and its Affiliates) that are Controlled by Blueprint or its Affiliates as of the Effective Date or at any time during the Term.

1.19. "Business Day" means a day other than a Saturday or Sunday or a day on which banking institutions in New York, New York are permitted or required to be closed.

1.20. "cGCP" means the current good clinical practice applicable to the clinical development of any Blueprint Product or Ventana IVD used in a Project under Applicable Laws, including 21 CFR Parts 50, 54, 56, 312, and 812, as may be applicable, and applicable guidance documents published by the FDA and international standards.

1.21. "cGMP" or "Good Manufacturing Practices" means the standards that apply to the design and manufacture of any Blueprint Product or Ventana IVD used in a Project, including 21 CFR Parts 210, 211 and 820, as may be applicable, as well as all applicable guidance published from time-to-time by the FDA and the International Conference on Harmonisation ("ICH") Guidelines ICHQ7A Good Manufacturing Practice Guidance for API or the principles and guidelines of Good Manufacturing Practices for Medicinal Products as defined with EC Directive 2003/94/EC and associated EC Guide to Good Manufacturing Practice.

1.22. "Chugai" means Chugai Pharmaceutical Co., Ltd, with offices located at 1-1 Nihonbashi-Muromachi 2-Chome, Chuo-ku, Tokyo 103-8324, Japan, and its Subsidiaries, but excluding in any event Spring or any of its Subsidiaries.

1.23. "Clinical Outcomes Data" means data (or the results of analysis thereof) from Clinical Trials conducted by or on behalf of Blueprint or any of its Affiliates that is useful to select patients that will benefit from the use of, to de-select patients that will not benefit from the use of, or for whom the risks of use of the Blueprint Product would outweigh the benefits from, to determine or predict disease prognosis from the use of, or to otherwise affect health outcomes associated with, in each case, the Blueprint Product or with respect to any other therapeutic product used in combination with the Blueprint Product. For clarity, all such Clinical Outcomes Data shall be Highly Sensitive Data of Blueprint.

1.24. "Clinical Trial" means a clinical trial involving the Ventana IVD or the Blueprint Product that is referenced in a Project Schedule, including an investigation involving human subjects of a Blueprint Product undertaken or sponsored by Blueprint as part of the development of such pharmaceutical product to obtain information relating to patient outcome or selection for therapy with such pharmaceutical product, which includes the use of the Ventana IVD or any prototype of it developed in the respective Project.

1.25. "Commercialization" and "Commercialize" shall refer to all activities (including Activities) undertaken relating to the pre-marketing, marketing, distribution, importing/exporting, offering for sale, sale and support of a Blueprint Product or Ventana IVD, and manufacturing or having manufactured) a Blueprint Product or Ventana IVD for such purposes.

1.26. "Commercialization Plan" has the meaning set forth in Section 5.6.

1.27. "Commercially Reasonable Efforts" means, with respect to a Party's Activities, good faith use of the efforts and resources which would customarily be used by that Party in performing those same Activities at an arms-length basis for Third Parties and its Affiliates; […***…].

1.28. "Committee" means the JSC, JDC, JCC, JPC or any other committee established by the JSC; "Committees" means two or more of the foregoing.

1.29. "Confidential Information" means: (i) confidential and proprietary data and information of a Party, which is provided by or on behalf of such Party to the other Party in connection with this Agreement, whether prior to, on or after the Effective Date, including data and information relating to any Assay, diagnostic, Biomarker, compound (including the Highly Sensitive Data), Materials, research project, work in process, future development, scientific, engineering, launch, manufacturing, marketing, business plan, financial or personnel matter relating to such Party, its present or future products, sales, suppliers, customers, employees, investors and business, and (ii) the terms and conditions of this Agreement and any Project Schedule; provided, however, that, except in the case of Highly Sensitive Data, all such information is marked or described in writing as "confidential", "proprietary" or the like. Notwithstanding the foregoing, Confidential Information shall not include Joint Project Results or Joint Inventions, which shall be subject to Section 7.7.

1.30. "Contract Laboratories" has the meaning set forth in Section 4.6.

1.31. "Control" or "Controlled" means, with respect to any Intellectual Property, item of information or other intangible right, possession of the right, whether directly or indirectly, and whether by

ownership, license or otherwise, to grant the other Party access, a license or sublicense, as provided for herein, without violating the terms of any written agreement with any Third Party, […***…].

1.32. "Cutoff Value" means, with respect to the Blueprint Product and any Ventana Assay, any proposed or established cutoff value(s) for use in scoring results including that serves as thresholds for determining positive and negative results.

1.33. "Deliverables" means the data or Materials to be provided by either Party in connection with a particular Project.

1.34. "Development Activities" means the Activities consisting of or directed to development, optimization, validation or clinical testing of, or obtaining Regulatory Approval for, the Blueprint Product or the Ventana Assay, to be performed by either Party under a particular Project Schedule; provided, however, that in the case of Blueprint with regard to any Clinical Trial it carries out under a Project Schedule, Development Activities shall be deemed to include only those aspects of such Clinical Trial relating to the use of any Ventana Assay or the validation of any Ventana Assay for use with the Blueprint Product.

1.35. "Diagnostics Field" means *in vitro* testing for research use, or exploratory use, or as a clinical diagnostic for use in the diagnosis or on-going evaluation of a disease or medical condition, including the prediction or monitoring of a response to a therapeutic agent, selection for therapy and also use as an *in vitro* diagnostic.

1.36. "Disclosing Party" means, with respect to Confidential Information and Materials, the Party providing such Confidential Information or Materials to the other Party.

1.37. "Dispute" has the meaning set forth in Section 15.1.

1.38. "Divisional Affiliate" means, with respect to:

1.38.1. Ventana, (i) those Affiliates that are not engaged in the Pharmaceutical Field, or (ii) other Affiliates whose services Ventana requires to perform its obligations hereunder, provided that in the case of any Affiliate covered by clause (ii), Ventana shall be subject to the covenant set forth in Section 16.3.1. Notwithstanding part (ii) of this Section 1.38.1, neither Genentech, Roche's pharmaceutical group nor Chugai shall be considered Ventana's Divisional Affiliates under this Agreement.

1.38.2. Blueprint, (i) those Affiliates that are not engaged in the provision of services in the Diagnostic Field, or (ii) other Affiliates whose services Blueprint requires to perform its obligations hereunder, provided that in the case of any Affiliate covered by clause (ii), Blueprint shall be subject to the covenant set forth in Section 16.3.2.

1.38.3. For purposes of this Section 1.38 and also Section 16.3: (i) the provision of diagnostic products or services by Ventana (or its Affiliates) to a Person in the Pharmaceutical Field shall not be construed as being engaged in the Pharmaceutical Field, and (ii) Blueprint's (or its Affiliates') research and development activities in the Diagnostic Field, obtaining of products and services from a Person in the Diagnostic Field, or promoting an Assay for use with its therapeutic products, shall not be construed as being engaged in the Diagnostic Field.

1.39. "Drug Development Failure" means that Blueprint has: (i) discontinued development of the Blueprint Compound in the applicable Indication for any reason (e.g., as a result of safety, efficacy or other technical issues, as a result of intellectual property issues or in the event that Blueprint reasonably determines that further development or commercialization of the Blueprint Product is not commercially reasonable), and (ii) if applicable, withdrawn or will withdraw at an appropriate time relative to the ongoing clinical trials any applicable INDs and/or clinical trial applications for the applicable Indication with respect to the Blueprint Product.

1.40. "Drug Specific Assay Matters" means the following matters: (i) the Cutoff Value(s); and

(ii) those aspects of the fourth module of the PMA to the extent related to the safety or efficacy of the Blueprint Product.

1.41. "EEA" means the European Economic Area as its membership may be constituted from time to time, and any successor thereto, and which, as of the Effective Date, is comprised of the members of the European Union together with Iceland, Liechtenstein and Norway.

1.42. "Effective Date" has the meaning set forth in the first paragraph of this Agreement.

1.43. "European Union" means the European Union as its membership may be constituted from time to time, and any successor thereto, and which, as of the Effective Date, consists of Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom, and that certain portion of Cyprus included in such organization.

1.44. "FDA" means the United States Food and Drug Administration and any successor agency.

1.45. "FD&C Act" means the United States Federal Food, Drug and Cosmetic Act, as amended.

1.46. "Force Majeure Event" has the meaning set forth in Section 16.5.

1.47. "Foundation" means Foundation Medicine, Inc., with offices located at 150 Second Street, Cambridge, MA 02141, USA, and its Subsidiaries, but excluding in any event Spring or any of its Subsidiaries.

1.48. "Genentech" means Genentech, Inc., with offices located at 1 DNA Way, South San Francisco, CA 94080, USA, and its Subsidiaries, but excluding in any event Spring or any of its Subsidiaries.

1.49. "Generic Leftover Materials" are Materials that: (i) are not attributable to, or associated with, the Disclosing Party, and (ii) need not be used by the Receiving Party to satisfy the purpose for which the Disclosing Party disclosed the Materials.

1.50. "Highly Sensitive Data" has the meaning set forth in Section 7.2.

1.51. "Hybridoma" means a hybridoma or cell line that expresses an antibody necessary for production or use of an Assay, and all Know-How therewith, relating to the use of such hybridoma.

1.52. "Indemnitee" has the meaning set forth in Section 14.3.

1.53. "Indemnitor" has the meaning set forth in Section 14.3.

1.54. "Independent Development" has the meaning set forth in Section 11.2.

1.55. "Indication" means any disease or condition that a product can be used to treat or prevent, which use is the subject of a Regulatory Approval.

1.56. "Intellectual Property" means all intellectual property rights, including rights to Patents, Know-How, utility models, registered designs, design rights, copyrights, copyright registrations and trade secrets, and similar intellectual property rights; provided, however, that "Intellectual Property" shall not, unless clearly indicated to the contrary, include names, logos, trademarks, trade dress and service marks.

1.57. "Invention" shall mean any inventions or discoveries, whether or not patentable, first conceived or reduced to practice by employees or agents of either Party or its Divisional Affiliates or jointly by employees or agents of both Parties or their Divisional Affiliates in the course of Development Activities performed under any Project Schedule, together with all Patents (including applications) claiming or covering such inventions or discoveries and all other intellectual property rights with respect thereto.

1.58. "IRB" means an Institutional Review Board, independent ethics committee, or any equivalent authority.

1.59. "IVD" or "*in vitro* diagnostic" means: (i) in the United States, an Assay intended for use in the disease prognosis or treatment selection / prediction, including a determination of the state of health, in order to cure, mitigate, treat, or prevent disease or its sequelae, as more fully defined in 21 C.F.R. § 800 et seq., including so-called complementary diagnostics (e.g., those used to identify patients whose Biomarker status is associated with a changed therapeutic response), companion diagnostics for a pharmaceutical product as defined in FDA's "*Draft Guidance for Industry and Food and Drug Administration Staff - In Vitro Companion Diagnostic Devices*", (ii) in the European Union, an in vitro diagnostic medical device as defined in the European directive 98/79/EC, and (iii) any similar definitions set by Regulatory Authorities in Markets outside of the United States and the European Union.

1.60. "Joint Invention" has the meaning set forth in Section 8.4.

1.61. "Joint Project Patents" has the meaning set forth in Section 8.7.2.

1.62. "Joint Project Results" has the meaning set forth in Section 8.2.

1.63. "JSC", "JDC", "JCC", and "JPC" or "Joint Steering Committee", "Joint Development Committee", "Joint Commercialization Committee" and "Joint Patent Committee" have their respective meanings set forth in Sections 10.2.1, 10.3.1, 10.4.1 and 10.5.1.

1.64. "Know-How" means any information, improvements, practices, formulae, trade secrets, techniques, procedures, information regarding marketing, pricing, distribution, cost, sales or methods, manufacturing procedures and specifications, and test data (including biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, pre-clinical, clinical, safety, manufacturing and quality control data and information); provided, however, that Know-How does not include Patents or Highly Sensitive Data.

1.65. "Labeling" (i) in the United States, the Product Insert that conforms to 21 CFR Part 201.57 for the Blueprint Product and proposed or approved Instructions For Use for the Ventana IVD that conforms to 21 CFR 801 that is approved by FDA or included in any Regulatory Documentation; (ii) outside the United States, Product inserts that conform to similar analogous standards of Regulatory Authorities.

1.66. "Laboratory Developed Test" means an in vitro diagnostic test that is designed, validated, and performed within a single laboratory and otherwise complies with FDA's guidance with respect to LDTs.

1.67. "Liabilities" has the meaning set forth in Section 14.1.

1.68. "Markets" means the countries set forth and designated as such in a Project Schedule.

1.69. "Materials" means Samples, biological materials, compounds, reagents, and supplies that one Party delivers or causes to be delivered to the other Party in connection with a Project.

1.70. "Milestone" means a milestone event specified in a Project Schedule that triggers a payment obligation on the part of Blueprint.

1.71. "Package Instructions" means instructions and/or restrictions placed on Materials, including, as applicable, Labeling on Materials that have received Regulatory Approval.

1.72. "Party" means Blueprint or Ventana as the context requires and "Parties" means both Blueprint and Ventana; provided, however, if consented to by both Parties in writing, a Party's Divisional Affiliate may execute a Project Schedule that is subject to the terms and conditions of this Agreement; and provided, further, that the rights and obligations of a Party (or, if applicable, such Party's Divisional Affiliate) shall apply only with respect to those Project Schedules that have been executed by such Party or Divisional Affiliate.

1.73. "Patent" means any existing or future: (i) national, regional or international patent or patent application in any jurisdiction (including any provisional, divisional, continuation, continuation-in-part,

non-provisional, converted provisional, or continued prosecution application, any utility model, petty patent, design patent or certificate of invention), (ii) any extension, restoration, revalidation, reissue, re-examination and extension (including any supplementary protection certificate and the like) of any of the foregoing patents or patent applications, and (iii) any ex-U.S. equivalents corresponding to any of the foregoing.

1.74. "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.

1.75. "Pharmaceutical Field" means the discovery, development, manufacture, use, or sale of biological or chemical substances for the medical cure, treatment, or prevention of diseases or conditions in human beings.

1.76. "PMA" means: (i) a U.S. pre-market approval application for a Class III medical device, including all information submitted with or incorporated by reference, or (ii) any analogous application to those set forth in (i) that is filed with the relevant Regulatory Authority in a country or region in the Markets, including any supplemental applications.

1.77. "PMA Laboratory Developed Test" means a Laboratory Developed Test for which a PMA is submitted and approved by the relevant Regulatory Authority.

1.78. "Project" means a project in one or more of the following areas: (i) Biomarker identification and validation, (ii) prototype development of a Ventana Assay, (iii) companion diagnostic proof of concept, (iv) *in vitro* diagnostic development, (v) development of the Ventana Assay for use in Clinical Trials, (vi) pivotal trial support, or (vii) PMA submission; which project ultimately may result in the creation or Regulatory Approval of a Ventana IVD under this Agreement.

1.79. "Project Results" means data, reports, Deliverables, and any other Know-How developed or produced in the course of Development Activities performed under any Project Schedule; excluding Inventions.

1.80. "Project Schedule" means an attachment to this Agreement, as described in Section 2.2 below, containing a list of Activities, Deliverables and other terms applicable to a Project.

1.81. "Publication" has the meaning set forth in Section 7.6.

1.82. "Qualified Assignee" means, at the time of Blueprint's notice under Section 16.1.2 or 16.1.3, either: (i) an Affiliate of Ventana, or (ii) a Third Party that meets each of the following qualifications: (a) it has either assets or a market capitalization equal to or greater than […***…], (b) it is not in the business of manufacturing or selling instruments or reagents to Third Parties for use in in vitro diagnostic immunohistochemistry assays, and (c) it is not threatening to engage in litigation with Ventana, it is not then engaged in litigation with Ventana, and it has not engaged in litigation with Ventana during the prior five (5) years.

1.83. "Reach-Through Licenses" has the meaning set forth in Section 4.4.1.

1.84. "Receiving Party" means, with respect to Confidential Information and Materials, the Party receiving such Confidential Information or Materials from the other Party or its agents.

1.85. "Regulatory Approval" means with respect to a regulatory jurisdiction, any and all approvals, clearances, product or establishment licenses, registrations or authorizations of any Regulatory Authority, necessary for the manufacture, use, storage, import, export, transport, or Commercialization of a product in such jurisdiction, including, where applicable, (i) pricing and reimbursement approval in such regulatory jurisdiction, (ii) pre- and post-approval marketing authorizations (including any prerequisite manufacturing approval or authorization related thereto), and (iii) Labeling approval. With regard to an

IVD, Regulatory Approval includes FDA approval of a PMA (or PMA supplement, as applicable), or as applicable FDA clearance of a 510(k) notification or FDA grant of a de novo petition for reclassification, for the IVD, the issue of a CE marking declaration of conformity by or on behalf of the manufacturer of the device in the EEA and similar approvals of Regulatory Authorities in other jurisdictions in the Markets; with regard to the Blueprint Product, NDA or BLA approval granted by the FDA, and similar approvals of Regulatory Authorities in other jurisdictions in the Markets or supplementary approvals by Regulatory Authorities.

1.86. "Regulatory Authority" means, as applicable, the FDA, the European Medicines Agency, or any other analogous regulatory authority or agency in a country or region in the Markets.

1.87. "Regulatory Documentation" means all: (i) submissions (including all INDs, Drug Approval Applications, IDEs, 510(k)s, de novo determinations, HDEs and PMAs), registrations, licenses, authorizations and approvals (including Regulatory Approvals); and (ii) correspondence and reports submitted to or received from Regulatory Authorities (including minutes and official contact reports relating to any communications with any Regulatory Authority), including all adverse event files and complaint files, in each case ((i) and (ii)) relating to a Blueprint Product or Ventana IVD.

1.88. "Replacement Diagnostic Solution" has the meaning set forth in Section 5.9.3.

1.89. "Roche" means F. Hoffman-La Roche Ltd.

1.90. "RUO Product" means a product developed under a Ventana/Blueprint Project Schedule to be offered for sale on a "*research use only*" basis, including an antibody or a product comprising an antibody.

1.91. "Samples" means, to the extent that a Party delivers or causes to be delivered to the other Party hereunder: (i) human tissue samples, whether in blocks, slides, fresh or otherwise, (ii) human patient blood samples, clinical isolate, bodily fluids, cells, organs, and human-derived waste or other similar specimen samples, and (iii) any data or information associated with such Samples; provided, however, that xenografts not identifiable as coming from a particular natural person (e.g., xenografts used as controls) shall not be included in this definition of Samples.

1.92. "Sample Requirements" has the meaning set forth in Section 3.2.1.

1.93. "Scoring Algorithm" means any algorithm developed by or on behalf of employees or agents of either Party or its Divisional Affiliates or jointly by or on behalf of employees or agents of both Parties or their Divisional Affiliates in the course of Development Activities performed under any Project Schedule that is used to determine the expression level of one or more Biomarkers in patients or subjects. As used herein, "Scoring Algorithm" shall include any improvement or modification to an existing algorithm.

1.94. "Senior Officers" has the meaning set forth in Section 15.1.

1.95. "Specific Diagnostic Intellectual Property" means, on a Biomarker-by Biomarker-basis: (i) a Hybridoma Controlled by Blueprint which produces a Biomarker-specific antibody or a probe (or other molecule useful for imaging and/or quantifying a Biomarker) needed by Ventana to produce a Ventana Assay under a Project, (ii) Patents Controlled by Blueprint that could be asserted to prevent making, using or selling a Ventana Assay under a Project, or (iii) both (i) and (ii).

1.96. "Spring" means Spring Bioscience Corporation with offices at 4300 Hacienda Drive, Pleasanton, CA 94588 USA, a Subsidiary of Ventana.

1.97. "Subsidiary" means any Affiliate of a Party that is directly or indirectly controlled by such Party.

1.98. "Term" has the meaning set forth in Section 12.1.

1.99. "Territory" means worldwide.

1.100. "Third Party" means any individual or entity other than Ventana, its Divisional Affiliates, Blueprint, or Blueprint's Divisional Affiliates; for the avoidance of doubt, Genentech, Roche's pharmaceutical group and Chugai each are deemed to be Third Parties to this Agreement.

1.101. "Third Party Claims" has the meaning set forth in Section 14.1.

1.102. "Third Party Intellectual Property" has the meaning set forth in Section 4.2.

1.103. "Trademark Rights" means any word, name, symbol, color, shape, designation or any combination thereof, including any trademark, service mark, trade name, brand name, sub-brand name, trade dress, product configuration, program name, delivery form name, certification mark, collective mark, logo, tagline, slogan, design or business symbol, that functions as an identifier of source or origin, whether or not registered and all statutory and common law rights therein and all registrations and applications therefor, together with all goodwill associated with, or symbolized by, any of the foregoing.

1.104. "Undisclosed Specific Diagnostic Intellectual Property" has the meaning set forth in Section 4.3.

1.105. "Ventana Assay" means an Assay developed by Ventana under a Project.

1.106. "Ventana Assay Performance Data" means all data, information, results and reports pertaining specifically to the technical performance and analytical validity of the Ventana Assay, including any such data generated during technical performance verification studies, method comparison for clinical utility demonstration, and clinical reproducibility studies. Ventana Assay Performance Data does not include Biomarker Data.

1.107. "Ventana Indemnitee" has the meaning set forth in Section 14.2.

1.108. "Ventana Inventions" has the meaning set forth in Section 8.4.

1.109. "Ventana IVD" means a Ventana Assay (including any investigational or prototype versions thereof) that is developed or Commercialized by Ventana into an IVD for use with the Blueprint Product under a Project.

1.110. "Ventana Platform Technology" means those technologies Controlled by Ventana in the Diagnostic Field that do not necessarily relate to the individual Assay, antibodies or Biomarkers described in a Project Schedule, (e.g., hardware, detection chemistry, computer software programs for image analysis of biological systems, immunohistochemistry, *in situ* hybridization, automated anatomic pathology systems, Assays, diagnostic Assay development expertise, diagnostic test kits including secondary antibodies (but excluding Biomarker-specific antibodies), statistical methodologies and other formulae and analytical techniques), excluding any Biomarker Data.

1.111. "Ventana Platform Technology Improvements" means any improvement to the Ventana Platform Technology utilized under any Project Schedule, which improvement was first conceived or reduced to practice or made by or on behalf of employees or agents of either Party or its Divisional Affiliates or jointly by or on behalf of employees or agents of both Parties or their Divisional Affiliates in the course of Development Activities performed under any Project Schedule.

1.112. "Ventana Project Results" has the meaning set forth in Section 8.2.

1.113. "Ventana Trademark Rights" means any Trademark Rights used by Ventana or its Affiliates in connection with the commercialization of a Ventana Assay (other than the Trademark Rights or corporate names Controlled by Blueprint and its Affiliates) that are Controlled by Ventana or its Affiliates as of the Effective Date or at any time during the Term.

1.114. Other Definitional And Interpretative Provisions. References herein to days means calendar days. The words "hereof", "herein" and "hereunder" and words of like import used in this

Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The captions herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof. Any capitalized term used in any Project Schedule but not otherwise defined therein shall have the meaning as defined in this Agreement. Any singular term in this Agreement shall be deemed to include the plural, any plural term the singular and the word "or" is used in the inclusive sense (and/or), whether or not the convention "and/or" is used in some places but not others. Whenever the words "include", "includes" or "including" are used in this Agreement, they shall be deemed to be followed by the words "without limitation", whether or not they are in fact followed by those words or words of like import. Ambiguities, if any, in this Agreement will not be construed against either Party, irrespective of which Party may be deemed to have authored the ambiguous provision. This Agreement will be fairly interpreted in accordance with its terms and without any strict construction in favor of or against either Party. In this Agreement, unless otherwise specified, the Project Schedules and other attachments hereto form part of the operative provision of this Agreement and references to "this Agreement" shall include references to the Project Schedules and such attachments, whether or not Project Schedules are expressly referenced.

2. PROJECTS

2.1. Responsibility. As further specified in this Agreement and each Project Schedule, Blueprint shall be responsible for development and Commercialization of the Blueprint Compound and Ventana shall be responsible for development and Commercialization of the Ventana Assay. Except to the extent that such an action would violate its obligations under this Agreement or a Project Schedule, Blueprint shall have final discretion with respect to all matters regarding the Blueprint Compound and Ventana shall have final discretion with respect to all matters regarding the Ventana Assay. The Parties shall coordinate their respective Development Activities through the Joint Steering Committee, or the Joint Development Committee, as applicable.

2.2. Project Schedules, Generally. This Agreement governs all Projects undertaken at the times and locations specified in the Project Schedule in relation to each Project. Ventana shall undertake the Activities and provide the Deliverables set forth in, and for which Ventana has been allocated responsibility under, the relevant Project Schedule with the standards of care and skill to be reasonably expected in the Diagnostics Field, including adherence to applicable cGCP and cGMP practices. Blueprint shall undertake the Activities and provide the Deliverables set forth in, and for which Blueprint has been allocated responsibility under, the relevant Project Schedule with the standards of care and skill to be reasonably expected in the Pharmaceutical Field, including adherence to applicable cGCP and cGMP practices. Blueprint shall, at its own expense, ensure that any Clinical Trial involving the use of the Ventana IVD hereunder includes all necessary IRB approvals for the Blueprint Product and reimburse Ventana for the costs of all necessary IRB approvals for the Ventana IVD.

2.3. Negotiation of Project Schedules. During the period commencing on the Effective Date and continuing until the fifth (5th) anniversary thereafter, the Parties may negotiate in good faith to adopt one or more Project Schedules under this Agreement. The specific details of each Project conducted by the Parties under this Agreement shall be negotiated separately and specified in a written Project Schedule to be agreed upon and executed by both Parties. Each Project Schedule will describe the scope of Activities, Deliverables, Project time lines and compensation terms. Once executed by both Parties, each Project Schedule shall be incorporated in its entirety into this Agreement. Each time that the Parties agree that a new Project should be added to and come within the scope of this Agreement, the Parties shall prepare a new Project Schedule for such Project. Subject to the covenants of good faith and reasonableness (including those in Section 2.4), nothing herein shall create an express or implied obligation on the part of either Party to execute any particular Project Schedule.

2.4. Scope Changes. Each time that the Parties agree that the Activities or Deliverables should be amended or additional Activities or Deliverables should be added to and come within the scope of a

Project under this Agreement, the Parties shall prepare and execute a revised version of the Project Schedule for such Project. Upon a request to extend the scope of any Project to further Indications (i.e., detection of the antigen in different tissues) or to include additional Markets, Ventana shall: (i) not unreasonably withhold its consent to such extension, and (ii) reasonably discuss with Blueprint in good faith the necessary amendments to the respective Project Schedule. The revised Project Schedule shall have added to it a description of such new or amended Activities, provisions regarding the financial consideration (if any), and other details regarding the new or amended Activities. Ventana shall not vary from the Activities and Deliverables set out in the original Project Schedule until the Parties have agreed to do so in writing.

2.5. Agreement Precedence. Terms or conditions on a Project Schedule that differ from those in this Agreement take precedence over the terms and conditions in the Agreement only with respect to that particular Project Schedule, and only where the Project Schedule sets forth those terms and conditions in the Agreement that are intended to be superseded or modified for purposes of such Project Schedule.

3. MATERIALS AND RECORDS

3.1. Materials Delivery. As more specifically provided in each Project Schedule, Blueprint shall provide to Ventana the Materials specified in such Project Schedule as a responsibility of Blueprint, free of charge. If after Blueprint provides such Materials, it is determined that they do not conform to their descriptions or are not suitable for the Activities under the Project Schedule, then Blueprint shall: (i) provide new or replacement Materials or, if that is not possible, propose and discuss with Ventana in good faith an alternative, and (ii) subject to written agreement between the Parties, adjust the Project Schedule, fees and/or costs as necessary to account for any delay caused by non-conforming Materials.

3.2. Samples.

3.2.1. Sample Requirements. Each Party acknowledges that certain of the Materials transferred hereunder may consist of Samples that are derived or collected from human subjects. Each Party further acknowledges that the transfer of Samples is a highly sensitive matter, and therefore, each Party shall ensure that all Samples transferred by or on behalf of such Party to the other Party under this Agreement shall have been collected, processed, de-identified, tracked, stored, transported, manipulated and destroyed in a manner appropriate to ensure compliance with: (i) the terms and conditions of this Agreement, (ii) any applicable requirements of an IRB, and (iii) all Applicable Laws and ethical standards, including privacy and patient confidentiality laws (collectively, (i), (ii) and (iii) are referred to as "Sample Requirements") in connection with the collection of the Samples.

3.2.2. Treatment of Samples. With respect to any Samples provided by or on behalf of a Party to the other Party hereunder, the providing Party shall have developed and followed such Party's documented policies and procedures with respect to the protection of the autonomy and confidentiality of the human subjects from whom the Samples were collected in compliance with the Sample Requirements. If collection of the Samples was subject to informed consent or required authorization, the Disclosing Party shall ensure that the scope of such informed consent or authorization is consistent with the transfer of (and the other Party's permitted use of) the Samples (and any accompanying data) is permitted by this Agreement and is not prohibited by Applicable Law. All Samples delivered under this Agreement shall be labelled clearly as required by any Sample Requirements.

3.2.3. Special Case for Certain Countries. In the event that (i) Applicable Law prohibits the export of Samples from a particular country or jurisdiction and (ii) Ventana cannot with Commercially Reasonable Efforts provide (or, with the prior written consent of Blueprint, contract with) a laboratory to test such Samples within such country or jurisdiction, the Parties shall work in good faith to discuss and implement an alternative for testing such Samples pursuant to the goals of the applicable Project Schedule.

3.2.4. Identifiable Healthcare Information. The providing Party shall not, without first obtaining the other Party's prior written consent, deliver to the other Party personally identifiable healthcare information or data relating to patients or subjects, in connection with the Samples or otherwise.

3.3. Use Restrictions.

3.3.1. Permissible Uses. Each Receiving Party shall handle, store and use the Materials provided to it by or on behalf of the other Party in accordance with Applicable Laws, the relevant informed consent (to the extent the terms of such consent have been disclosed in writing to the Receiving Party), any applicable documentation, reasonable handling procedures, applicable common scientific standards of care, and the Disclosing Party's written instructions. Each Receiving Party may use the Materials (other than the Generic Leftover Materials) of the Disclosing Party only in connection with the Activities described in the applicable Project Schedule and for no other purpose.

3.3.2. Restrictions; Respect For Package Instructions. Materials whose Package Instructions prohibit transfer to Third Parties shall not be transferred by the Receiving Party to Third Parties without the other Party's written consent. Subject to the foregoing, none of the Materials provided by or on behalf of one Party to the other Party hereunder or pursuant to any Project Schedule shall be transferred by a Receiving Party to any Third Parties except as: (i) otherwise agreed by the Parties in writing, and (ii) to Contract Laboratories or (sub)contractors who are legally bound to treat the Materials in a manner consistent Receiving Party's obligations hereunder. The Receiving Party shall not use the Materials of the Disclosing Party for testing in or treatment of human subjects except to the extent described in the applicable Project Schedule. The Receiving Party understands and agrees that the Materials may be experimental in nature the Receiving Party shall be solely responsible for any property damage, personal injury or death attributable to the use, storage or handling of the Materials of the Disclosing Party in a manner proscribed by either the Package Instructions or generally recognized scientific standards; provided that nothing in this Section 3.3.2 is intended or shall be construed to limit a Party's indemnification obligations under Article 14 in the case of personal injury or death caused by the use or administration of the Ventana IVD or the Blueprint Product. To the extent that the Disclosing Party includes with any Materials (including, for example, the Blueprint Product, the Blueprint Compound, Ventana Assay or Ventana IVD) specific Package Instructions (including, for example, package inserts or legends reading "*For Research Use Only*" or "*For Investigational Use Only*"), the Receiving Party shall only use such Materials in accordance with its accompanying Package Instructions.

3.4. Documents Required for Activities. Each Party will, upon request, timely provide the other Party with reasonable access to documents and records in its possession (or that it controls) related to the Ventana IVD or Blueprint Product that are reasonably necessary or useful for the performance by the requesting Party of each Project under this Agreement. This shall include: (i) Blueprint providing Ventana with reasonable access to its protocols (including forms of patient consents) for any Clinical Trial involving the use of the Ventana IVD and Blueprint Confidential Information and documentation relating to the Blueprint Product if and to the extent reasonably necessary to enable Ventana to perform the Activities included in the Project Schedule, and (ii) Ventana providing Blueprint with reasonable access to Ventana Confidential Information and documentation relating to the Ventana IVD if and to the extent reasonably necessary to enable Blueprint to perform the Activities included in the Project Schedule.

4. THIRD PARTY INTERACTIONS

4.1. Subcontractors.

4.1.1. Generally. Any involvement of Third Party contractors by either Party for a

material portion of the Activities for which it is responsible requires the prior written consent of the other Party, such consent not to be unreasonably withheld. The foregoing shall not be construed as: (i) preventing either Party from (a) using individual consultants, (b) subcontracting those minor portions of the Activities that it would customarily subcontract in the ordinary course of business, (c) subcontracting to Divisional Affiliates, or (ii) preventing Blueprint from subcontracting drug development activities that are either substantially unrelated to Ventana (e.g., API manufacture, supply chain contracts), otherwise addressed hereunder (e.g., Contract Laboratories in accordance with Section 4.6) or that are customarily subcontracted by companies in the Pharmaceutical Field (e.g., contracting with generally reputable contract research organizations and clinical sites and investigators). Prior written consent shall not be required in the cases (i) through (ii), above.

4.1.2. Confidentiality and Assignment of IP. To the extent that a Party utilizes Third Party contractors or Divisional Affiliates to perform tasks within the scope of a Project, such Party shall ensure all such Third Party contractors and Divisional Affiliates: (i) are obligated to treat the other Party's Confidential Information in accordance with the provisions of Article 7, and (ii) are subject to obligations to assign or license Inventions and other work product resulting from such contracted services in accordance with the provisions of Article 8. Each Party shall be solely responsible for the acts, performance and compensation of its respective Third Party contractors.

4.2. Third Party Intellectual Property. Subject to Section 4.4, with respect to any Ventana IVD, Ventana shall be responsible, at its own cost and expense, for obtaining and maintaining any licenses or other rights to access or use any Intellectual Property Controlled by a Third Party that, in the absence of a license, would be infringed by Ventana's development, manufacture, use or Commercialization of such Ventana IVD pursuant to this Agreement ("Third Party Intellectual Property"). Such license obtained by Ventana shall cover Ventana's development, manufacture, use and Commercialization of the Ventana IVD in connection with the stratification or selection of patients for treatment with the Blueprint Product and development of the Ventana IVD (as an *in vitro*, complementary or companion diagnostic) with the Blueprint Product.

4.3. Specific Diagnostic Intellectual Property. Prior to executing any Project Schedule hereunder, Blueprint shall make good faith efforts to disclose to Ventana the existence of any Specific Diagnostic Intellectual Property, in which case the Parties may (but are not obligated to) negotiate a commercially reasonable, separate, non-exclusive license agreement providing Ventana with access to such Materials or Patent Rights for use in an Assay, it being understood that such Assay may support both Blueprint's and Third Parties' pharmaceutical products. The Parties acknowledge and agree that those portions of Specific Diagnostic Intellectual Property which Blueprint sublicenses (as opposed to licenses) to Ventana shall be subject to restrictions and conditions imposed by Blueprint's licensors. […***…].

4.4. Reach-Through Licenses.

4.4.1. Reach-Through Licenses Defined. Notwithstanding Section 4.2, in the event that any such in-license by Ventana of Third Party Intellectual Property (other than Third Party Intellectual Property that could block the use, manufacture or sale of Ventana Platform Technology) would require Ventana to undertake an expense greater than […***…] in any one calendar year for the right to use or practice such Third Party Intellectual Property to develop, manufacture, use or Commercialize a Ventana IVD for the applicable Indication(s), […***…]; provided that in no event shall Blueprint be obligated to contribute to or offset any license fees or other amounts paid or due to such Third Party to the extent reasonably allocable to the development, manufacture or commercialization of any Ventana Assay for use with any product other than the Blueprint Product (including any therapeutic product of any Affiliate or Third Party). Licenses negotiated between Ventana and any such Third Party under this Section 4.4 (for which Blueprint has an obligation to negotiate with respect to a contribution to offset such expense) shall be referred to as ("Reach-Through Licenses").

4.4.2. Pre-Existing Reach-Through Licenses. Prior to executing a Project Schedule, the performance of which Ventana in good faith knows would cause it to seek an economic contribution under an existing Reach-Through Licenses with a Third Party, Ventana shall disclose to Blueprint the financial terms of such Reach-Through License to Blueprint and the amount of any contribution by Blueprint with respect thereto shall be agreed by the Parties in the applicable Project Schedule. In no event shall Blueprint have an obligation to offset the expense of any such existing Reach-Through License prior to execution of the Project Schedule.

4.4.3. Future or Unknown Reach-Through Licenses. From time to time, one or both of the Parties may become aware of a potential Reach-Through License which was not known prior to execution of the applicable Project Schedule. In such case, Ventana shall regularly inform Blueprint about the necessity and the negotiation status of Reach-Through License and shall consult with Blueprint regarding the content of the negotiation drafts of agreements for such Reach-Through Licenses. Ventana shall reasonably take into account any comments from Blueprint on the terms of the license agreements that are applicable to all Reach-Through Licenses for the development and Commercialization of Blueprint Products and shall seek Blueprint's approval of such terms before executing agreements for Reach-Through Licenses.

4.5. Other Licenses; Cooperation. For the avoidance of doubt, Blueprint shall be solely responsible, at its own expense, for obtaining and maintaining any licenses or other rights to access or use any Third Party Intellectual Property (other than as described in Section 4.2 and Section 4.4) that is necessary for the development, manufacture, use or Commercialization of any Blueprint Product. Each Party agrees to cooperate reasonably with the other Party to assist the other Party's acquisition of any licenses that it is obligated to obtain pursuant to this Section 4.5; provided, however, that such cooperation shall not (except as set forth in Section 4.4) include the undertaking of any financial obligations such as the payment of royalties, milestones or the like.

4.6. Contract Laboratories. The Parties may use Third Party contract laboratories for the performance of certain services such as Samples testing pursuant to a Project Schedule ("Contract Laboratories"). Blueprint and Ventana shall cooperate reasonably on a case-by-case basis when contracting with such Contract Laboratories. Ventana shall have the right to select Third Party Contract Laboratories for use in activities directed to demonstrating analytical validation of the Ventana Assay (including intra-laboratory reproducibility), in each case, with the prior written consent of Blueprint, such consent not to be unreasonably withheld, conditioned or delayed. In the absence of an agreement under a Project Schedule to the contrary, however, Blueprint shall be responsible and authorized to select and contract with the Contract Laboratories that it has engaged to assess the clinical utility of the Ventana IVD, subject to Ventana's prior written consent, not to be unreasonably withheld, conditioned or delayed. Blueprint and Ventana shall endeavor to ensure that the Contract Laboratories are properly certified to do the clinical utility work according to the applicable Project Schedule for the Project and this Agreement. Ventana shall be solely responsible for the manufacture and supply of the Ventana IVD to the Contract Laboratories for clinical utility testing and for sufficient educating and training the Contract Laboratories personnel as necessary for conducting the clinical utility testing. Ventana also shall be responsible for ensuring that each such Contract Laboratory has or is provided the necessary equipment (including any upgrades) needed to perform the Ventana IVD; provided, however, that such equipment shall be provided on terms to be agreed upon between Ventana and the Contract Laboratories that are consistent with the standard terms currently being offered by Ventana to its other Third Party customers for such equipment. If a Contract Laboratory and Ventana are unable to enter into and perform under an agreement that is consistent with Ventana's standard terms, then the Parties shall select an alternate Contract Laboratory (which selection shall be subject to the terms of this Section 4.6).

4.7. Regulatory Matters.

4.7.1. In General. Subject to Section 4.7.2 and each applicable Project Schedule,

Ventana shall be responsible for preparing, obtaining and maintaining Regulatory Approvals for the Ventana IVD; Blueprint shall, at its discretion, be responsible for preparing, obtaining and maintaining Regulatory Approvals, if any, for the Blueprint Product. Ventana shall ensure that the Ventana IVD developed in a Project complies with all Applicable Laws. Ventana shall use Commercially Reasonable Efforts to ensure that the Ventana IVD receives Regulatory Approval in the time specified in the applicable Project Schedule. The Parties shall cooperate and assist each other reasonably in the Regulatory Approval process and reasonably coordinate and align their Regulatory Approval filings, or equivalents, and Activities pertaining thereto as far as necessary in connection with Ventana's obtaining and maintaining Regulatory Approvals for the Ventana IVD for use with the Blueprint Product. For the avoidance of doubt, each Party acknowledges that Ventana's obligation to seek Regulatory Approvals in countries or territories other than the Markets identified in a Project Schedule shall be subject to additional costs for matters such as regulatory filing fees, preparation of regulatory filings and, if necessary, support for Clinical Trials to be negotiated in good faith pursuant to Section 2.4. If Ventana fails or refuses despite Ventana's use of Commercially Reasonable Efforts, to seek or obtain or maintain Regulatory Approvals for the Ventana IVD in any country in any Market then the Parties shall negotiate in good faith to select and agree upon and implement, a Replacement Diagnostic Solution(s) that is reasonably acceptable to the Parties in the impacted Market or Markets.

4.7.2. Coordination on Regulatory Submissions for Ventana IVDs. Ventana shall provide Blueprint with an opportunity to review and comment on all filings that are required to be made to obtain or maintain Regulatory Approval of any Ventana IVD to the extent that such filing involves any Drug Specific Assay Matter or any material discussion of the Blueprint Product that has not been the subject of a prior opportunity for review and comment by Blueprint. Ventana shall consider in good faith Blueprint's comments with respect thereto to the extent relating to any Blueprint Product and, additionally, any Drug Specific Assay Matter shall be further subject to Section 10.6. To the extent legally permissible, Ventana shall provide Blueprint with an opportunity to attend any scheduled meeting with a Regulatory Authority regarding obtaining or maintaining Regulatory Approval of any Ventana IVD for use with the Blueprint Product solely to the extent such meeting includes (or is reasonably anticipated to include) consideration of any Drug Specific Assay Matter or any other material discussion of the Blueprint Product or use of such Ventana IVD specifically in connection with the Blueprint Product.

4.7.3. Right of Reference to Ventana. Blueprint shall, and shall ensure that its Divisional Affiliates shall, upon request, provide Ventana with any appropriate letters or other similar documentation necessary to authorize such Person to cross-reference and rely (on a non-exclusive basis) upon the contents of any of Blueprint's or its Affiliates' Regulatory Documentation and Regulatory Approvals for the Blueprint Product, for the purposes of the filing, obtaining and maintaining of Regulatory Approvals for any Ventana IVD for use with the Blueprint Product in the Markets; provided, however, that, for clarity, Blueprint's obligations shall not require Blueprint or its Divisional Affiliates to provide to Ventana such letters, documentation or authorization for the purpose of supporting approval of any Ventana Assay for use with any product other than the Blueprint Product.

4.7.4. Right of Reference to Blueprint. Ventana shall, and shall ensure that its Divisional Affiliates shall, upon request provide Blueprint (and Blueprint's designated Affiliates and (sub)licensees) with any appropriate letters or other similar documentation necessary to authorize such Person to cross-reference and rely (on a non-exclusive basis) upon the contents of any of Ventana's or its Divisional Affiliates' Regulatory Documentation and Regulatory Approvals for any Ventana IVD for use with the Blueprint Product, for the purposes of the filing, obtaining and maintaining of Regulatory Approvals for the Blueprint Product for use in conjunction with such Ventana IVD(s) in the Markets.

4.7.5. Rights In Regulatory Documentation. As between the Parties, each Party shall retain sole all right, title and interest in and to its Regulatory Documentation, and except for the limited right of reference specified in Sections 4.7.3 and 4.7.4, nothing herein shall be construed as transferring, or otherwise granting, expressly or by implication, to the other Party any rights in or to such Regulatory Documentation.

4.8. Covenants of Ventana Concerning Highly Sensitive Data/Documentation of Blueprint. Ventana covenants to Blueprint that Ventana and its Divisional Affiliates shall not, directly or indirectly, provide Clinical Outcomes Data, Regulatory Documentation of Blueprint or other Highly Sensitive Data of Blueprint, to any Third Party (other than Regulatory Authorities as permitted in Section 4.7), or permit any Third Party access to, or the opportunity to attend meetings (or portions thereof) with Regulatory Authorities specifically regarding any Ventana Assay for use specifically with the Blueprint Product. Without limitation to the foregoing, Ventana covenants to Blueprint that Ventana and its Divisional Affiliates shall not, directly or indirectly, with respect to any Clinical Outcomes Data, Regulatory Documentation of Blueprint or other Highly Sensitive Data of Blueprint: (i) submit or resubmit such data or documentation to any Regulatory Authority, (ii) rely on any such data or documentation in any submission to any Regulatory Authority by specifically referencing it, or (iii) provide to any Third Party any such data or documentation, in each case of (i), (ii) and (iii) above, for the purpose of obtaining or maintaining Regulatory Approval for any Indication for use of any Assay (including a Ventana Assay) with any therapeutic product other than the Blueprint Product.

5. COMMERCIALIZATION

5.1. General Principles. The Parties agree that the ultimate goal of each Project conducted under this Agreement is the Commercialization of a Ventana IVD used in connection with the Blueprint Product, and Ventana acknowledges that availability of such Ventana IVD as a companion diagnostic might be a condition for obtaining a Regulatory Approval for a Blueprint Product. Upon notice from Blueprint, the Parties shall negotiate in good faith a Project Schedule to further govern Commercialization of the Ventana IVD. The Parties shall cooperate on the following principles: (i) the determination of whether and to which extent and in what countries the Blueprint Product shall be Commercialized shall be within Blueprint's sole discretion, (ii) […***…]: (a) neither Party shall be obligated to undertake any action that it believes in good faith is unlawful, or which exposes it to regulatory or legal risks (e.g., infringement of Third Party Intellectual Property rights, non-compliance with export or corruption laws, etc.) in excess of those which it customarily assumes, (b) subject to clause (a), a goal of the Parties shall be to ensure that after Regulatory Approval the Ventana IVD can be sold in each such Market by Ventana's Divisional Affiliates through the use of Commercially Reasonable Efforts. If a commercially reasonable plan for Commercializing the Ventana IVD in a given Market is not possible despite Ventana's use of Commercially Reasonable Efforts, or Ventana otherwise fails to Commercialize the Ventana IVD in any country in any Market, then the Parties shall negotiate in good faith to select and agree upon and implement, a Replacement Diagnostic Solution(s) that is reasonably acceptable to the Parties in the impacted Market or Markets.

5.2. Joint Commercialization Efforts. Under the direction and oversight of the JCC, and to the extent provided pursuant to any Project Schedule, Blueprint and Ventana will use Commercially Reasonable Efforts to collaborate on efforts to Commercialize the Ventana IVD and the Blueprint Product. Blueprint and its Divisional Affiliates may encourage use of the Ventana IVD (where legally permitted and in accordance with Ventana's policies and guidelines) in connection with efforts to Commercialize the Blueprint Products related to the Ventana IVD.

5.3. Ventana Obligations. Upon Regulatory Approval of the Ventana IVD in each Market, Ventana (or its Divisional Affiliates, as applicable) shall use Commercially Reasonable Efforts, at their expense, to Commercialize the Ventana IVD in such Markets in accordance with the Project Schedule.

5.4. Blueprint Obligations. Upon Regulatory Approval of the Blueprint Product in each Market,

the Commercialization by Blueprint and its Divisional Affiliates (and any Third Parties involved in marketing and selling the Blueprint Product) of such Blueprint Product in such Market shall be at its and their sole expense and discretion. As permitted by Applicable Laws, Blueprint and its Divisional Affiliates (and any Third Parties involved in marketing and selling the Blueprint Product) shall have the right to reference testing with the Ventana IVD (where legally permitted and in accordance with Ventana's applicable policies and guidelines that are disclosed to Blueprint reasonably in advance in writing) to the target customer segment.

5.5. Coordination. Under the direction and oversight of the JCC, and at their own respective costs, each of the Parties will (as considered reasonable by each Party, in its sole discretion, and to the extent legally allowed and in accordance with the Parties' promotional policies and guidelines) discuss scientific support, marketing strategies and sales force initiatives and […***…], including identification of Markets, alignment of package inserts, instructions for use, data sheets, marketing collateral and materials, Publications, training reimbursement strategies, support of investigator initiated studies, sharing of market research information and use of advisory boards/key opinion leaders. As it becomes available or known to Blueprint, Blueprint shall provide Ventana with information concerning its launch plans and its anticipated release timelines for the Blueprint Product.

5.6. Commercialization Plan. Under the direction and oversight of the JCC, the Parties will work cooperatively to develop one or more commercialization plans for each Ventana IVD for which Regulatory Approval for use with the Blueprint Product has been obtained or is expected (each being a "Commercialization Plan"). Each Commercialization Plan shall include a description of those Commercialization activities to be conducted by Ventana in support of the launch of and the Commercialization of the Ventana IVD pursuant to and subject to this Agreement, deliverables and projected timelines for completion of activities/delivery of deliverables and, if any, […***…]. Each Commercialization Plan shall be subject to the written approval of the Parties and shall include provisions for the supply of the Ventana IVD in sufficient quantities in the countries in the Markets.

5.7. Trademarks and Labeling.

5.7.1. Ventana References to Blueprint. Ventana shall ensure that its, and its Divisional Affiliates', references to Blueprint (and any product, trademark, logo or trade name of Blueprint or any of its Affiliates) in connection with the Ventana IVD or the Commercialization activities (including any use in any Labeling, Package Instructions, the Ventana IVD description, technical information, instructions for use, promotional material, advertising and other information and messaging to be included with the Ventana IVD or otherwise to be provided by Ventana to potential purchasers or users of the Ventana IVD) shall comply with Section 9.4.

5.7.2. Blueprint References to Ventana. Blueprint shall ensure that its, and its Divisional Affiliates', references to Ventana (and any product, trademark, logo or trade name of Ventana or any of its Affiliates) in connection with the Blueprint Product or the Commercialization activities (including any use in any Labeling, Package Instructions, the Blueprint Product description, technical information, instructions for use, promotional material, advertising and other information and messaging to be included with the Blueprint Product or otherwise to be provided by Blueprint to potential purchasers or users of the Blueprint Product) shall comply with Section 9.5.

5.8. Manufacture and Supply. Ventana shall be solely responsible for the manufacture of the Ventana IVD in compliance with cGMP requirements, as applicable. Until commercial launch of a Ventana IVD, Ventana shall ensure that adequate supplies of the Ventana IVDs (or prototypes), are made available to any Contract Laboratories and any Clinical Trial sites in accordance with Ventana's generally applicable commercial terms and any forecast, order, payment, delivery and shipment terms mutually agreed between the Parties in good faith negotiations unless already set forth in the Project Schedule. Subject to receiving sufficient notice from Blueprint, Ventana shall use its Commercially Reasonable Efforts to ensure that it

maintains sufficient inventories of the Ventana IVD as is necessary for the conduct of the Clinical Trials and to support the launch of the respective Blueprint Product. Ventana shall be responsible for the transfer of the Ventana IVD or the prototypes thereof to the Contract Laboratories involved in the Clinical Trials. If Ventana fails to make available adequate supplies of the Ventana IVD to laboratories in a Market in violation of this Section 5.8, then Ventana shall provide, and the Parties shall negotiate in good faith to select and agree upon and implement, one or more Replacement Diagnostic Solution with respect to the applicable Ventana IVD.

5.9. Supply Failures.

5.9.1. Generally. For Ventana IVDs (or investigational use only (IUO)/investigational device exemption (IDE) prototypes of Ventana IVDs that have passed the design lock stage gate), if Ventana fails or refuses despite Ventana's use of Commercially Reasonable Efforts, to develop, manufacture, supply, have distributed or otherwise make commercially available or adequately meet the development needs or the commercial demand for the Ventana IVD (or such IUO/IDE prototypes of the Ventana IVD) as agreed in a Project Schedule in the Markets, or if Ventana is otherwise required to provide a Replacement Diagnostic Solution under this Agreement, then upon Blueprint's notice to Ventana, the Parties shall negotiate in good faith to select and agree upon and implement, a Replacement Diagnostic Solution(s) that is reasonably acceptable to the Parties in the impacted Market or Markets.

5.9.2. […***…]

5.9.3. Replacement Diagnostic Solution. A "Replacement Diagnostic Solution" as defined under this Section 5.9.3 is an alternative arrangement consisting of one or more of the following: (i) an arrangement (to be facilitated by Ventana acting in good faith) whereby Blueprint may distribute the Ventana IVD in a country or countries in the relevant Markets and have the right to purchase from Ventana or its Divisional Affiliates the necessary quantities of Ventana IVD at a commercially reasonable price, (ii) an arrangement whereby a Third Party may distribute the Ventana IVD in a country or countries in the relevant Markets, (iii) an arrangement to transport tissue samples to countries in the relevant Markets where the Ventana IVD is available, (iv) a licensing arrangement whereby Blueprint may use, make, have made, sell, offer for sale, import or otherwise exploit the Ventana IVD or an alternative product to the Ventana IVD for use with the Blueprint Product in a country or countries, (v) […***…], (vi) supplying the antibodies, reagents (except for those reagents that are part of the Ventana proprietary detection systems) and the Know-How that may be useful or necessary for Blueprint or a Third Party to develop an alternative product to the Ventana IVD, including in such quantities as reasonably required by Blueprint for development and Commercialization purposes, and providing such assistance as is reasonably requested by Blueprint, (vii) enabling a Laboratory Developed Test at a mutually acceptable laboratory (to the extent such alternative arrangement would meet Blueprint's needs consistent with Applicable Law), (viii) enabling a PMA Laboratory Developed Test at a mutually acceptable laboratory (to the extent such alternative arrangement would meet Blueprint's needs consistent with Applicable Law), or (ix) […***…], or (x) such other mutually agreeable arrangement to help support sales of the Blueprint Product, with the ultimate goal of ensuring that diagnostic testing using the Ventana IVD in connection with the Blueprint Product is (or remains) available in the countries in the relevant Markets as reasonably practicable. In the case of each Replacement Diagnostic Solution, Ventana shall grant to Blueprint and, if agreed by the Parties, to one or more Third Parties, the necessary licenses to implement such Replacement Diagnostic Solution under Intellectual Property Controlled by Ventana, and Ventana or its Divisional Affiliates shall reasonably assist Blueprint in obtaining the requisite services and/or materials (including, as applicable, Biomarker-specific antibodies for use in an alternative product to the Ventana IVD in quantities that enable Blueprint to meet the demands in the relevant country(es) in the relevant Market(s)) from distributors, Affiliates of Ventana or Third Parties needed for the Replacement

Diagnostic Solution. The Parties acknowledge and agree that any Intellectual Property which Ventana sublicenses (as opposed to licenses) under this Section 5.9.3 to Blueprint shall be subject to restrictions and conditions imposed by Ventana's licensors.

5.9.4. Antibody Supply Agreement. If, at any time, Blueprint desires to enter into a supply agreement with Spring or another applicable Subsidiary of Ventana with respect to supply of any Biomarker-specific antibody used in a Ventana IVD, then Ventana shall use reasonable efforts to facilitate Blueprint's negotiation of such agreement with Spring or other applicable Subsidiary on commercially reasonable terms, provided that Ventana and Blueprint agree that such supply agreement shall not require Spring (or the other applicable Subsidiary) to sell and deliver such antibody supply pursuant to such supply agreement except in circumstances where Ventana's obligation to provide to Blueprint a Replacement Diagnostic Solution pursuant to this Agreement has been triggered or in other circumstances expressly agreed in such supply agreement.

5.10. RUO Product. In the event that Ventana or Blueprint believes it advantageous to release an RUO Product, the JDC will discuss whether or not to make such RUO Product available. If the Parties agree through the JDC to make such RUO Product available, then the Parties will cooperate to work with Ventana's Affiliate, Spring, or another Third Party, to develop, manufacture and commercialize such RUO Product. Each Party shall ensure that Confidential Information Controlled by the other Party regarding the potential content, use, results and details of such RUO Product will be discussed and approved by the JDC before being publicly communicated. If Ventana or Blueprint believes such RUO Product would be detrimental to its business strategy, such considerations shall be discussed between the Parties and a good faith approach shall be mutually agreed upon by the JDC. The foregoing shall not be construed as requiring Ventana or Spring to obtain Blueprint's permission to develop and commercialize any RUO Product, provided that if any such RUO Product contains the same antibody as any Ventana Assay developed under any Project Schedule, then Blueprint shall not be associated with such product. Neither Ventana, Spring nor any of Ventana's Affiliates shall use any Highly Sensitive Data, or any Materials provided by Blueprint, in connection with such RUO Product without Blueprint's prior written consent. Each Party shall ensure that in no event shall an RUO Product include, or be described or portrayed as an IVD.

5.11. Access. Authorized representatives of Blueprint shall have the right to access Ventana's facilities used in the performance of Activities and to inspect the records that relate to the accuracy of Third Party expenses described in Section 6.2, and/or the performance of the Project Schedules under this Agreement. Unless otherwise agreed by the Parties, such access and inspection shall be: (i) on reasonable prior notice, (ii) during Ventana's regular business hours, (iii) not unreasonably disruptive to Ventana's business operations, (iv) reasonable in scope and duration, (v) not unduly burdensome to Ventana's personnel, (vi) not more than once per year (except if for cause or circumstances reasonably warrant), and (vii) subject to Ventana's generally applicable confidentiality, security and safety procedures for Third Party auditors (which procedures shall not be inconsistent with the terms of this Agreement).

6. PAYMENT

6.1. Fees and Invoices. Blueprint shall pay Ventana in accordance with the fee/payment provisions set forth in the applicable Project Schedule and payments are made in USD by wire transfer to a bank account specified by Ventana in writing. Following the end of each quarter, Ventana shall submit to Blueprint an itemized invoice for the fees and milestones payable in respect of that quarter to the following e-mail address:

Blueprint
ap@blueprintmedicines.com
Purchase order (PO) number of the respective Project in the reference line.
Name of invoice requisitioner.

Blueprint shall pay such invoices within thirty (30) days of receipt of the invoice.

6.2. Reimbursable Expenses. In addition to the fees payable under Section 6.1, Blueprint shall reimburse all reasonable out of pocket travel expenses validly incurred and itemized by Ventana in performing the Activities in the amounts set forth in the applicable Project Schedule or otherwise only and to the extent approved in advance by Blueprint in its sole discretion.

6.3. Sunshine Act Reporting. Each Party shall report any reportable payments or transfers of value that it makes to covered recipients pursuant to §6002 of the Affordable Care Act of 2010, and other similar laws in connection with Activities under this Agreement.

6.4. Taxes. The amounts payable by Blueprint to Ventana pursuant to this Agreement (each, a "Payment") shall be paid free and clear of any and all taxes, except for any withholding taxes required by Applicable Law. Except as provided in this Section 6.4, Ventana shall be solely responsible for paying any and all taxes (other than withholding taxes required by Applicable Law to be deducted from Payments and remitted by Blueprint) levied on account of, or measured in whole or in part by reference to, any Payments it receives. Blueprint shall deduct or withhold from the Payments any taxes that it is required by Applicable Law to deduct or withhold.

6.5. Late Payments. If Blueprint fails to pay any undisputed amount specified in this Agreement on or before date it is due, the amount owed will bear interest at the Citibank, NA base lending rate plus […***…] from such date until paid; provided, however, that if this interest rate is held to be unlawful or unenforceable for any reason, the interest rate will be the lesser of (i) the Citibank, NA base lending rate plus […***…] and (ii) the maximum rate allowed by Applicable Laws at the time payment is due.

6.6. Fee Adjustments. In the event that any Third Party in the Pharmaceutical Field works with Ventana to develop or commercialize an Assay for the same Biomarker as any Biomarker that is included in a Ventana Assay under this Agreement, then the Parties may negotiate to adjust the fees/payment provisions under any of the affected Project Schedule(s) or Section 6.1, or the expenses reimbursable pursuant to Section 6.2, which adjustments shall only become effective upon the mutual written agreement of both Parties.

7. CONFIDENTIALITY

7.1. Confidential Information.

7.1.1. Generally. Except in connection with the Activities or with the performance of this Agreement, including the permitted use in filings for Regulatory Approval, or as otherwise permitted by either this Agreement or the Disclosing Party, the Receiving Party shall, during the Term and for a period of five (5) years thereafter: (i) not use any Confidential Information of the Disclosing Party, (ii) maintain the Disclosing Party's Confidential Information in confidence using the same degree of care that the Receiving Party uses for its own Confidential Information, but in no event using less than reasonable care, and (iii) not disclose or transfer any Confidential Information of the Disclosing Party (or any materials which contain such Confidential Information), to any Third Party; provided, however, that disclosure shall be permitted to the Receiving Party's directors, officers, employees, agents or advisors (including attorneys, accountants and members of such Party's standing Scientific Advisory Board) and permitted sub-contractors (and those of its Divisional Affiliates) who reasonably require such Confidential Information for the purposes hereof and who (except in the case of attorneys) are bound by obligations of non-use and confidentiality with respect to such Confidential Information no less stringent than those set forth in this Section 7.1.

7.1.2. Disclosures to Certain Third Parties. The Receiving Party shall be permitted to disclose Confidential Information to bona fide potential or actual (x) development or

commercialization partners or licensees for the Blueprint Product (or, for clarity, any combination therapy including the Blueprint Product or Blueprint Compound) and sources of debt or equity financing for the Receiving Party, (y) accountants, consultants, bankers, and financial advisors, and (z) parties to a merger, acquisition or similar transaction involving the Receiving Party (including attorneys, accountants, consultants, bankers or financial advisors to any party covered by clauses (x)-(z)), in each case, who reasonably require such Confidential Information (including as part of their due diligence investigations) and who are informed of the confidential nature of such information and this Agreement and (except in the case of attorneys) are bound by obligations of non-use and confidentiality with respect to such Confidential Information substantially similar to the Receiving Party's obligations hereunder; provided, however, that notwithstanding the foregoing and subject to Section 7.1.1, with respect to Confidential Information comprising the terms of this Agreement or any financial terms contained in any Project Schedule, except to the extent permitted pursuant to Section 7.4 or 7.5, neither Party may disclose such Confidential Information to a Third Party without the other Party's prior written consent, not to be unreasonably withheld, conditioned or delayed.

7.2. Highly Sensitive Data.

7.2.1. Defined. As used herein, "Highly Sensitive Data" means, regardless of whether it is marked as confidential or not: (i) confidential and proprietary data and information consisting of clinical outcomes of the Compound (including Clinical Outcomes Data), (ii) personally identifiable information (e.g., Annotated Data) with respect to or from subjects in Clinical Trials or individual donors from whom Samples were derived, and (iii) to the extent related to the Blueprint Product, all confidential and proprietary data and information: (a) supplied to Ventana by Blueprint, (b) generated in any Clinical Trial of a Blueprint Product, (c) generated by the Contract Laboratories in the course of any Project under this Agreement, (d) Cutoff Value(s) for the Ventana IVD, or (e) related to Commercialization; provided, however, that in the case of (iii), in no event shall Highly Sensitive Data be deemed to include information pertaining to Ventana Platform Technology or Ventana Assay Performance Data. Highly Sensitive Data shall be deemed to be the Confidential Information of Blueprint.

7.2.2. Use and Disclosure. Ventana shall maintain Highly Sensitive Data in strict confidence in accordance with Section 7.1 above, and shall use coded identifiers for such Highly Sensitive Data for additional security. Ventana's obligations with respect to Highly Sensitive Data described clauses (i) and (ii) of Section 7.2.1 shall continue for a minimum period of twenty (20) years after the Term, and thereafter in perpetuity unless such Highly Sensitive Data has been destroyed. In addition to the obligations set forth in Section 7.1, Ventana shall not disclose any of Blueprint's Highly Sensitive Data to any Third Party (other than Third Party contractors in accordance with Section 4.1), nor shall Ventana disclose any of Blueprint's Highly Sensitive Data to employees, agents or subcontractors of Chugai, Genentech, Inc., or any employees, agents or subcontractors of Ventana's Affiliates if such persons are engaged in or involved with the discovery, development or commercialization of pharmaceutical products.

7.2.3. Special Cases. Notwithstanding the foregoing in this Section 7.2: (i) Project Results constituting or relating to Cutoff Value(s) for the Ventana IVD for use in conjunction with the Blueprint Product shall be deemed the Confidential Information of Blueprint unless and until such information is made public by Blueprint or as a result of Labeling approval by a Regulatory Authority, and (ii) upon prior notice to Blueprint, Ventana shall have the right to disclose to Regulatory Authorities Highly Sensitive Data consisting of the aggregated incidence of a particular Biomarker in a particular intended use if requested by such Regulatory Authority.

7.3. Non-Confidential Information. The obligations set forth in Section 7.1 and 7.2 shall not apply to any information that: (i) was possessed by the Receiving Party or any of its Affiliates prior to

disclosure or development under this Agreement, (ii) was developed by the Receiving Party or any of its Affiliates independently from disclosure or development under this Agreement, (iii) is now or later becomes publicly available other than by breach of this Agreement by Receiving Party or any of its Affiliates, or (iv) is available to the Receiving Party or any of its Affiliates from a Third Party that is not legally prohibited from disclosing such information. Notwithstanding the foregoing, clauses (i) and (ii) of this Section 7.3 shall not operate to relieve Ventana of any of its obligations with respect to Highly Sensitive Data of Blueprint or, to the extent that they constitute or relate to any Cutoff Value for any Ventana IVD for use with a Blueprint Product, Project Results.

7.4. Compelled Disclosure; Other Corporate Communications. The Receiving Party may disclose Confidential Information of the Disclosing Party pursuant to applicable judicial or governmental law, regulation, request or order. In such case the Receiving Party either shall ensure that a protective order to protect the confidentiality of such Confidential Information is in place or, when allowed under Applicable Laws, take reasonable steps to provide the Disclosing Party sufficient prior notice in order to contest such law, regulation or order at the expense of the Disclosing Party. At the Disclosing Party's request and expense, the Receiving Party shall contest such law, regulation or order, such request made in the Disclosing Party's reasonable discretion. In the event the Receiving Party ultimately is required to disclose such Confidential Information then the Receiving Party shall disclose only such portion of the Confidential Information that is required to be disclosed (based on the advice of the Receiving Party's legal counsel) and shall seek, at the Disclosing Party's request and expense, a protective order to protect the confidentiality of such Confidential Information. Without limitation to the foregoing, for the avoidance of doubt, Blueprint shall have the right to include in corporate communications and other public announcements reasonably discrete analysis of Clinical Trial data concerning the use of the Ventana Assay in such Clinical Trials in order to describe a trial design or interpret the trial results; provided that Blueprint shall provide Ventana with prior written notice of any such proposed disclosure related to the Ventana Assay and a reasonable opportunity to review and comment on such proposed disclosure, which comments shall be considered in food faith by Blueprint.

7.5. Securities Filings. Notwithstanding any term or condition of this Agreement to the contrary, any Party or its Affiliates may disclose this Agreement, the subject matter hereof or any Party's activities hereunder pursuant to Applicable Law, including the rules and regulations of the U.S. Securities and Exchange Commission (or equivalent foreign agency) or a securities exchange on which its or its Affiliate's securities are listed (or to which an application for listing has been submitted), provided that such Party shall provide the other Party with prior written notice of such proposed disclosure and a reasonable opportunity to review and comment on such proposed disclosure (including, if applicable, a proposed redacted version of this Agreement to request confidential treatment for this Agreement). The other Party shall promptly provide its comments in a reasonable manner in order to allow the Party seeking disclosure to make, file or otherwise submit such disclosure within applicable timelines required by Applicable Law, which comments shall be considered in good faith by the disclosing Party.

7.6. Publication. The Parties shall have the right to publish or present data or any portion thereof for their publication objectives (a "Publication") in accordance with this Section 7.6. Blueprint will be responsible for and control the timing and scope of any Publication of Blueprint Project Results. Ventana will be responsible for and control the timing and scope of any Publication of Ventana Project Results. Any Publications of the Joint Project Results must be agreed and approved by both Parties. Blueprint shall not publish or present the Ventana Project Results or any portion thereof for any Publication without Ventana's prior written consent (such consent not to be unreasonably withheld, conditioned or delayed), and Ventana shall not publish or present Blueprint Project Results or any portion thereof for any Publication without Blueprint's prior written consent (such consent not to be unreasonably withheld, conditioned or delayed). Such Publication shall be subject to the provisions of this Agreement relating to confidentiality and non-disclosure, and shall be consistent with academic standards. At least sixty (60) days prior to submission of a Publication that requires the approval of the other Party, the publishing Party shall submit to the other

Party for review any proposed Publication and the other Party shall review the proposed Publication and provide its comments to the publishing Party no later than thirty (30) days prior to the proposed submission date for the Publication; provided, however, that if such Publication is an abstract the foregoing periods of sixty (60) days and thirty (30) days shall be reduced to ten (10) Business Days and five (5) Business Days, respectively. Upon the other Party's notice to the publishing Party that the other Party reasonably believes that one or more Patent applications should be filed which relate to Project Results owned by the other Party or Joint Project Results prior to any Publication, the publishing Party shall delay the Publication until such Patent application(s) have been filed; provided, that the other Party will cooperate in expeditiously filing any such Patent application(s); and, provided, further, that any such delay of a Publication will not exceed one hundred and eighty (180) days from the date of such notice by the other Party to the publishing Party. If the other Party believes that any Publication contains Confidential Information belonging to the other Party, the other Party will notify the publishing Party, which will remove all references to such Confidential Information prior to publication, presentation or use. Notwithstanding the foregoing, neither Party shall be required to seek the permission of the other Party to repeat any information in a Publication that has already been publicly disclosed by such Party or by the other Party, in accordance with this Section 7.6, provided that such information remains accurate as of such time and provided the frequency and form of such disclosure are reasonable. Each Party acknowledges and agrees that this Section 7.6 is not intended to, and shall not be construed to, limit, restrict or require a Party to limit or restrict the publication or the results of any Clinical Trials by investigators or sites participating in such Clinical Trials, provided that such Party has entered into written agreements with such investigators or sites requiring them to grant such Party (and by extension, the other Party) reasonable and customary rights to review in advance of such publications. Notwithstanding the foregoing, each Party acknowledges and agrees that nothing contained herein shall require either Party to include in its agreements with investigators or sites participating in such Clinical Trials any right of such Party or the other Party to block any publication or presentation (or portion thereof) by such investigators or sites, and the Parties further acknowledge and agree that neither Party shall be in breach of this Section 7.6 as a result of any failure or breach by such sites or investigators in complying with their obligations to the contracting Party with respect to publications (including advance review).

7.7. Confidentiality of Joint Project Results and Joint Project Inventions. Without limitation to anything in this Article 7, notwithstanding that Joint Project Results and Joint Project Inventions are not Confidential Information, each Party shall, for the Term of this Agreement and for twenty (20) years thereafter, treat any Joint Project Results and Joint Inventions in accordance with such Party's reasonable and customary confidentiality practices.

8. INTELLECTUAL PROPERTY OWNERSHIP

8.1. Ownership of Background Intellectual Property. Each Party (and its respective Affiliates) shall own all right, title and interest in and to its (and their) respective Background Intellectual Property. Each Party acknowledges and agrees that, except for the licenses expressly granted in Article 9 below, neither Party (nor their respective Affiliates) shall have any rights to, or licenses under, the other Party's Background Intellectual Property.

8.2. Ownership of Clinical Outcomes Data and Project Results. Blueprint shall own all Clinical Outcomes Data. Ownership of Project Results shall be determined as follows: (i) Blueprint shall, as between the Parties, own all Project Results that: (a) […***…] ("Blueprint Project Results"), (ii) Ventana shall own all Project Results that: (a) […***…] ("Ventana Project Results"), and (iii) all other Project Results, including: (x) Project Results consisting of: (1) Cutoff Values for the Ventana IVD for use in conjunction with the Blueprint Product (or any other therapeutic product used in combination with the Blueprint Product), and (2) Biomarker Data, and (y) Project Results consisting of or relating to the Scoring Algorithm, shall be jointly owned by the Parties ("Joint Project Results"); provided, however, that Cutoff Value(s) for use with the Blueprint Product (or any other therapeutic product used in combination with the Blueprint Product) shall be subject to Section 7.2. Subject to the licenses granted in Article 9 and rights of

reference granted in Section 4.7, each Party shall have the right to Exploit the Joint Project Results without a duty of seeking consent or accounting to the other Party; provided that each Receiving Party shall, for the Term of this Agreement […***…], treat any Joint Project Results and Joint Inventions as the confidential information of such Receiving Party and shall refrain from disclosure of such Joint Project Results and Joint Inventions to Third Parties except to the extent that disclosure thereof is in accordance with such Receiving Party's reasonable and customary practice (including, as appropriate and customary, pursuant to confidentiality agreements with Third Party recipients).

8.3. Transfer of Project Results. Ventana shall use reasonable efforts to promptly provide to Blueprint all Project Results covered by Section 8.2 (i) (and hereby assigns, and shall cause its subcontractors permitted under Section 4.1 to so assign, all of its and their right, title, and interest in such Project Results) to Blueprint. Blueprint shall use reasonable efforts to promptly provide to Ventana all Project Results covered by Section 8.2 (ii) (and hereby assigns, and shall cause its subcontractors permitted under Section 4.1 to so assign, all of its and their right, title, and interest in such Project Results) to Ventana. Acting under the oversight of the JPT or JSC as applicable, each Party: (i) shall use reasonable efforts to promptly provide to the other Party all Joint Project Results that constitute Deliverables under any Project Schedule or that are otherwise reasonably requested by the other Party, and (ii) hereby assigns to the other Party, and shall cause its Divisional Affiliates who perform Development Activities to so assign, an equal joint interest in and to Joint Project Results, in each case as is necessary to fully effect the ownership provided for in Section 8.2. The Parties agree, upon request by the other Party and at the other Party's cost and expense, to promptly execute any and all documents reasonably necessary or appropriate to memorialize, effect or perfect the assignments under this Section 8.3 throughout the Territory.

8.4. Ownership of Inventions. Acting under the oversight of the JPT or JSC as applicable, the Parties shall promptly notify each other in confidence of any Inventions. Ownership of Inventions shall be determined by the following provisions: (i) […***…] ("Blueprint Inventions"), (ii) […***…] ("Ventana Inventions"); and (iii) […***…] ("Joint Inventions"). Subject to the licenses granted in Article 9 and the rights of reference granted in Section 4.7, each Party shall have the right to (and the right to license its interest therein to Affiliates and Third Parties to) use, make, have made, offer for sale, sell and import goods and services claimed by the Joint Inventions without a duty of seeking consent or accounting to the other Party.

8.5. Transfer of Inventions. Where applicable under Section 8.4, the Parties agree to and do hereby assign, and shall cause their respective Subsidiaries and Divisional Affiliates who perform Development Activities under this Agreement or any Project Schedule to so assign, any and all right, title, and interest in such Inventions to the other Party, in each case as is necessary to fully effect the ownership provided for in Section 8.4. The Parties agree, upon request by the other Party and at the other Party's cost and expense, to promptly execute any and all documents deemed necessary or appropriate by the other Party to memorialize, effect or perfect the assignments under this Section 8.4 throughout the Territory.

8.6. Background Patents. Ventana shall have the right, but no obligation, to prosecute and maintain, and to control, enforce, and defend worldwide, at its own expense, Ventana Background Intellectual Property. Blueprint shall have the right, but no obligation, to prosecute and maintain, and to control, enforce, and defend worldwide, at its own expense, Blueprint Background Intellectual Property.

8.7. Prosecution and Enforcement of Project Patents.

8.7.1. Prosecution of Blueprint Project Patents and Ventana Project Patents. Blueprint shall have the right, but no obligation, to prosecute and maintain any Patents claiming any Blueprint Inventions and Ventana shall have the right, but no obligation, to prosecute and maintain any Patents claiming any Ventana Inventions.

8.7.2. Prosecution of Joint Project Patents. In the case of any Patents claiming Joint Inventions ("Joint Project Patents"), Blueprint shall have the first right, but not the obligation, at

its sole cost and expense, using counsel agreeable to the JPC, to prosecute and maintain any Joint Project Patents. Blueprint will supply Ventana with an advance copy of any Joint Project Patent and any documents relevant and material to the filing, prosecution and maintenance of such Joint Project Patent, and will consider in good faith any comments thereon made by Ventana. Blueprint will promptly provide copies of any papers related to the filing, prosecution and maintenance of each Joint Project Patent for Ventana's files, including a copy of the Joint Project Patent as filed together with notice of its filing date and serial number. If Blueprint elects not to prepare and file, or to abandon during prosecution, any Joint Project Patent, it will so inform Ventana in writing and, upon written notice to Blueprint, Ventana may, in its sole discretion, prepare, file and/or prosecute such Joint Project Patent at its own cost and expense. The Parties agree to cooperate to execute all necessary and lawful papers and instruments, to make all rightful oaths and declarations and to provide reasonable consultation and assistance as may be necessary in the preparation, prosecution, maintenance, and enforcement of any Joint Project Patents.

8.8. Patent Term Restoration. The Parties agree to cooperate and to take reasonable actions to maximize the protections available under the safe harbor provisions of 35 U.S.C. 102(c) (pre-AIA 35 U.S.C. 103(c)) for United States Patents. The Parties shall cooperate with each other, including to provide necessary information and assistance as the other Party may reasonably request, in obtaining patent term restoration or supplemental protection certificates or their equivalents in any country in the Territory where applicable to the Joint Project Patents and any other Patents claiming Inventions. In the event that elections with respect to obtaining such patent term restoration are to be made, Blueprint shall have the right to make the election and Ventana agrees to abide by such election.

9. LICENSES

9.1. Blueprint Generic Assay License to Ventana. Blueprint hereby grants Ventana a perpetual, irrevocable, royalty-free, non-exclusive license in the Territory under Blueprint Background Intellectual Property and, subject to Section 4.3, the Undisclosed Specific Diagnostic Intellectual Property, to the extent reasonably necessary to make, have made, use, sell, offer for sale, import and otherwise Commercialize the Ventana Assay in the Diagnostic Field in accordance with this Agreement. The license granted in this Section 9.1 is not sublicensable, except to Ventana's Divisional Affiliates and any Third Party engaged in the development, manufacture or Commercialization of the Ventana Assay. For clarity, nothing contained in this Section 9.1 is intended or shall be construed to grant to Ventana or its Affiliates any license to use, make, have made, sell, offer for sale, import or otherwise exploit any Blueprint Product.

9.2. Blueprint Product Specific License to Ventana. Blueprint hereby grants Ventana a royalty-free, non-exclusive license in the Territory under any Specific Diagnostic Intellectual Property, the Blueprint Inventions, the Blueprint Project Results and Blueprint's interests in any Joint Inventions and Joint Project Results to the extent reasonably necessary to make, have made, use, sell, offer for sale, import and otherwise Commercialize the Ventana IVD with the Blueprint Product in the Diagnostic Field during the Term in accordance with this Agreement. The license granted in this Section 9.2 is not sublicensable, except to Ventana's Divisional Affiliates and any Third Party engaged in the development, manufacture or Commercialization of the Ventana IVD. For clarity, nothing contained in this Section 9.2 is intended or shall be construed to grant to Ventana or its Affiliates any license to use, make, have made, sell, offer for sale, import or otherwise exploit any Blueprint Product.

9.3. Ventana License to Blueprint. Ventana hereby grants to Blueprint a royalty-free, non-exclusive license in the Territory under: (i) Ventana's Know-How and Ventana's interests in any Joint Inventions and Joint Results to the extent reasonably necessary to make, have made, use, sell, offer for sale, import and otherwise Commercialize the Blueprint Product (including for use with any Assay) irrevocably and in perpetuity in accordance with this Agreement, and (ii) Ventana's Background Intellectual Property, the Ventana Inventions and the Ventana Project Results to the extent reasonably necessary to make, have made, use, sell, offer for sale, import and otherwise Commercialize the Blueprint Product with the Ventana

IVD during the Term in accordance with this Agreement. The license granted in this Section 9.3 is not sublicensable, except to Blueprint's Divisional Affiliates and any Third Party engaged in the development, manufacture or Commercialization of the Blueprint Product. For clarity, and except in connection with the Commercialization of the Blueprint Product, nothing contained in this Section 9.3 is intended or shall be construed to grant to Blueprint or its Affiliates any license to use, make, have made, sell, offer for sale, import or otherwise exploit any Ventana Assay or Ventana Platform Technology.

9.4. Blueprint Trademark License to Ventana. Blueprint, on behalf of itself and its Affiliates, hereby grants to Ventana and its Divisional Affiliates, a non-exclusive, perpetual (except as set forth in the termination section of this Agreement), royalty-free right and license to use the Blueprint Trademark Rights and corporate names of Blueprint and its Affiliates for use in performance of development Activities under a Project Schedule and the Commercialization of a Ventana IVD in conjunction or for use with, or referring to, the Blueprint Product, in each case, in the Markets; provided, however, that Ventana shall: (i) use the Blueprint Trademark Rights and corporate names of Blueprint and its Affiliates in a manner consistent with the standards provided in writing by Blueprint from time to time and that do not otherwise diminish the value of or dilute such marks and corporate names, (ii) upon request, from time to time, provide samples of the Package Instructions, packaging, Labeling, advertising or promotional materials that use such Blueprint Trademark Rights or corporate names, and (iii) promptly notify Blueprint if it becomes aware of actual or possible infringement of Blueprint Trademark Rights in connection with any Ventana Assay or the activities contemplated under this Agreement.

9.5. Ventana Trademark License to Blueprint. Ventana, on behalf of itself and its Affiliates, hereby grants to Blueprint and its Divisional Affiliates a non-exclusive, perpetual (except as set forth in the termination section of this Agreement), royalty-free right and license to use the Ventana Trademark Rights and corporate names of Ventana and its Affiliates, if applicable, for use in performance of development Activities under a Project Schedule and the Commercialization of the Blueprint Product in conjunction or for use with, or referring to, any Ventana IVD intended for use with the Blueprint Product, in each case, in the Markets; provided, however, that Blueprint shall: (i) use the Ventana Trademark Rights and corporate names of Ventana and its Affiliates in a manner consistent with the standards provided in writing by Ventana from time to time and that do not otherwise diminish the value of or dilute such marks and corporate names, (ii) upon request, from time to time, provide samples of the Package Instructions, packaging, Labeling, advertising or promotional materials that use such Ventana Trademark Rights or corporate names, and (iii) promptly notify Ventana if it becomes aware of actual or possible infringement of Ventana Trademark Rights in connection with the Blueprint Product or the activities contemplated under this Agreement.

9.6. No Other Rights; No Implied Licenses. Only the licenses and other rights expressly granted by one Party to the other Party under terms of this Agreement are of any legal force or effect. No other licenses or other rights are granted, conveyed or created (whether by implication, estoppel or otherwise).

10. MANAGEMENT

10.1. Committees; Generally.

10.1.1. Membership and Decisions. Each Party shall only appoint as representatives to a Committee those of its employees who have appropriate experience, knowledge, and ongoing familiarity with the Projects in their then-current phases. Each Party shall be free to replace such representatives to a Committee with a new representative, upon prior written notice to the other Party. Unless set forth to the contrary by the JSC, decisions of (including approval by) each Committee shall be by consensus, with each Party having one (1) vote.

10.1.2. Meetings. The JSC shall meet (either in person, telephonically or via video conference) not less than twice per year or at such other frequency as agreed by the respective JSC

members; other Committees shall meet as directed by the JSC. Additional representatives of the Parties may from time to time be invited to attend Committee meetings, subject to the other Party's prior consent which shall not be unreasonably withheld, conditioned or delayed. On a meeting by meeting basis, choice of the meeting location shall alternate between the Parties and the chair of each Committee shall alternate between a representative of Blueprint and a representative of Ventana. Each Party shall bear its own expenses related to the attendance of meetings by its representatives.

10.1.3. Management and Administration. The Parties shall alternate recording minutes of the meetings and draft minutes of the meetings of each Committee, which will be generated and circulated to its members within ten (10) Business Days following each meeting and finalized by the applicable Committee promptly thereafter.

10.2. Joint Steering Committee.

10.2.1. Membership and Powers. Within thirty (30) days after the Effective Date, the Parties shall form a joint steering committee ("Joint Steering Committee" or "JSC") to facilitate the efficient and orderly transfer of information and coordination of processes related to the development, Regulatory Approval and Commercialization of the Blueprint Products and the Ventana IVDs that are the subject of this Agreement. The initial members of the JSC shall be: (a) the LifeCycle Leader of the Companion Diagnostic Lifecycle and the Head of CDx Partnering representing Ventana, and (b) comprised of the Vice President of Translational Medicine and the Chief Business Officer representing Blueprint.

10.2.2. Responsibilities. The role and responsibilities and decision-making authority of the JSC is to generally manage and optimize the collaboration between the Parties on Projects in accordance with this Agreement and each applicable Project Schedule. The JSC's responsibilities shall include the following functions: (i) facilitating the transfer of information and data required hereunder, (ii) facilitating the cooperation of the Parties, when requested, to provide the information and support required to be provided by a Party hereunder, (iii) facilitating coordinated interpretation of clinical data as reasonably necessary in connection with the performance of a Project Schedule, (iv) discussing freedom to operate in relation to any Ventana IVD, (v) coordination of planned marketing activities as required under any Commercialization Plan, (vi) forming additional Committees as the Parties may agree, (vii) resolving disputes escalated by any other Committees, and (viii) taking such other actions as may be specifically allocated to the JSC by the Parties from time to time. In the event that the JSC is unable to resolve a dispute arising hereunder, then, subject to Section 10.6, such dispute shall be escalated to the Parties' Senior Officers pursuant to Section 15.1.

10.3. Joint Development Committee.

10.3.1. General. Upon the request of either Party, the JSC shall form a joint development committee (a "Joint Development Committee" or "JDC") for each Project. The JDC shall have the role and responsibilities and decision-making authority as set forth below. Blueprint shall reimburse Ventana for the travel and related costs for Ventana's representatives for such meetings; provided, that (i) such reasonable out-of-pocket travel and related costs have been approved in advance by the JDC, and (ii) such representatives of Ventana have adhered to applicable company travel guidelines as agreed upon by the JSC.

10.3.2. Responsibilities. The JDC shall be responsible for reviewing and reporting on the progress of each Project, and ensuring that each Project proceeds according to the timelines set forth in the applicable Project Schedule. The JDC shall be informed of, and each Party shall reasonably and in good faith consider the other Party's views on the following decisions prior to submission of the relevant documents to Regulatory Authorities or finalization of such decisions:

(i) approval of the requirements for the Ventana IVD; (ii) selection of the primary antibody (as applicable) for the Ventana IVD and any standards for the Ventana IVD; (iii) the Labeling (including the "Intended Use" statement to be submitted in a PMA) to be submitted in a Regulatory Submission or otherwise to be presented to a Regulatory Authority for the Ventana IVD; (iv) the decision regarding the type of approval application to be developed and filed for Regulatory Approval for the Ventana IVD (e.g., in the U.S., the decision whether the Ventana IVD will be developed for Regulatory Approval under a PMA or a 510(k)); (v) selection of any Scoring Algorithm with respect to the Ventana IVD; and (vi) the decision whether a particular RUO Product should be developed and launched.

10.4. Joint Commercialization Committee.

10.4.1. General. Upon request by either Party, the Parties shall form a joint commercialization committee (the "Joint Commercialization Committee" or "JCC") comprised of three (3) representatives of each Party, to be designated by each Party in its sole discretion. The JCC shall have at least one representative responsible for Commercialization from each Party. The JCC shall be responsible for planning and coordinating the activities of the Parties with respect to the Commercialization of the Ventana IVD with the objective of assuring that: (i) the Ventana IVD is Commercialized in a manner that supports diagnostic testing for the Blueprint Product, and (ii) the Ventana IVD is commercially available and being supplied to support diagnostic testing for the Blueprint Product in all countries of the Markets in sufficient quantities.

10.4.2. Responsibilities. Unless otherwise agreed to in writing by the Parties, the responsibilities of the JCC shall include the following activities: (i) to discuss, coordinate and make efforts to align the launch, marketing and Commercialization of the Ventana IVD and the Blueprint Product, including the exchange of information on forecasted demand of the Ventana IVD for use with the Blueprint Product; (ii) to discuss and coordinate Ventana's activities supporting the Commercialization of the Ventana IVD, such as sales training (including, at Ventana's discretion, training for Blueprint sales representatives), promotion, customer service, support and education activities; (iii) to discuss and coordinate possible activities with respect to quality assurance plans (including training and monitoring programs for the Ventana IVD); (iv) to discuss and resolve issues concerning shelf-supply and emergency stocks of Ventana IVD; and (v) such other activities as mutually agreed between the Parties from time to time. The Parties acknowledge and agree that the JCC shall not have any powers to make decisions with respect to Ventana's development and Commercialization of the Ventana Assay in relation to the use of such Ventana Assay with Third Party products (including products that may be competitive to the Blueprint Product).

10.5. Joint Patent Committee.

10.5.1. General. Upon request by either Party, the Parties shall form a joint patent committee (the "Joint Patent Committee" or "JPC") comprised of one or more representatives of each Party, to be designated by each Party in its sole discretion; provided, that at least one representative is a licensed patent attorney or patent agent.

10.5.2. Responsibilities. The JPC shall be responsible for planning and coordinating the activities of the Parties with respect to matters involving Joint Inventions and Joint Project Patents as follows: (a) allocating responsibility for prosecution of applications for Joint Project Patents, (b) providing the Parties with copies of material communications submitted to, and received from, any Patent authority regarding Joint Inventions, (c) providing drafts of any material filings or responses to be made to such Patent authorities a reasonable amount of time in advance of submitting such filings or responses so that the Parties may have an opportunity to review and comment, (d) ensuring that Joint Project Patents are not abandoned or not maintained without proper coordination, (e) conferring regarding Third Party infringement of any Joint Project Patents, misappropriation or misuse of any Joint Know-How that is subject to this Agreement, (f) conferring

regarding Third Party Claims contesting the validity or enforceability of any Joint Project Patents, and (g) enforcing Joint Project Patents.

10.6. Committee Decision-Making and Related Restrictions. As further specified in this Agreement and each Project Schedule, Blueprint shall have final decision making authority with respect to all matters regarding the Blueprint Product and with respect to Drug Specific Assay Matters, and Ventana shall have final decision making authority with respect to all matters regarding the Ventana IVD (other than Drug Specific Assay Matters). Neither Ventana nor any Committee shall have any authority over the conduct of any Clinical Trial or, in each case, any protocol therefor for a Blueprint Product. No Committee shall have the power or authority to amend the terms and conditions of this Agreement.

11. NON-EXCLUSIVITY; INDEPENDENCE AND NON-INTERFERENCE

11.1. Non-Exclusive Relationship. The Parties' relationship hereunder is non-exclusive. Ventana may enter into arrangements whether or not similar to those described in this Agreement with Third Parties (including its Affiliates); Blueprint also may enter into arrangements whether or not similar to those described in this Agreement with Third Parties (including its Affiliates). Nothing in this Agreement will be construed as restricting either Party's ability to acquire, license, develop, manufacture or distribute for itself, or have others acquire, license, develop, manufacture or distribute for such Party, similar technology performing the same or similar functions as the technology contemplated by this Agreement, or to market and distribute such similar technology in addition to, or in lieu of, the technology contemplated by this Agreement; provided, that such Party complies with all provisions herein.

11.2. Independent Development Efforts. The Parties acknowledge and agree that Blueprint, Ventana and their respective Affiliates will retain the right to perform independent development, including as further outlined in this Section 11.2. As used herein, the term "Independent Development" shall mean the undertaking of development work; provided, that such work is: (i) not prohibited by this Agreement, and (ii) undertaken without the unpermitted aid, application or use of any of the other Party's Background Intellectual Property or Inventions.

11.2.1. Independent Development by Blueprint. Blueprint and its Affiliates have and shall retain ownership of all rights, title, and interest in and to the Blueprint Compound and are free to conduct Independent Development involving the use of the Blueprint Compound for any purpose (whether alone or in combination with any other product or service) and in collaboration with any Third Party. The foregoing shall include Blueprint's rights to independently utilize diagnostic tests (including *in vitro*, complementary or companion diagnostic products), other than or in addition to the Ventana IVD in connection with the development or Commercialization of the Blueprint Compound or any other compound, whether alone or in collaboration with Third Parties.

11.2.2. Independent Development by Ventana. Ventana or its Affiliates have and shall retain ownership of all rights, title, and interest in and to the Ventana Assay and are free to conduct Independent Development involving the use of the Ventana Assay or the Ventana Platform Technology for any purpose (whether alone or in combination with any other product or service) and in collaboration with any Third Party. The foregoing shall include Ventana's rights to independently develop, utilize, or Commercialize the Ventana Assay, the Ventana Platform Technology and other diagnostic tests and platforms (including *in vitro*, complementary or companion diagnostic products), whether alone or in collaboration with Third Parties, for use either alone or in conjunction with the development or Commercialization of any pharmaceutical products other than the Blueprint Product, provided that in no event shall Ventana have any right to use or disclose any Clinical Outcomes Data, Regulatory Documentation of Blueprint or other Highly Sensitive Data of Blueprint for such purpose.

11.3. […***…]

12. TERM AND TERMINATION

12.1. Term. The term of this Agreement will commence upon the Effective Date, and shall continue until terminated in accordance with this Article 12 (the "Term"). If all Projects hereunder have been terminated in accordance with this Article 12, then either Party may terminate this Agreement for its business convenience upon thirty (30) days' prior written notice to the other Party.

12.2. Termination For Cause.

12.2.1. Termination Rights. Either Blueprint or Ventana may terminate this Agreement or any Project Schedule immediately by written notice to the other Party, in the event that the other Party has failed to cure its material breach of this Agreement (or the respective Project Schedule) within sixty (60) days of its receipt of notice of such breach; provided, however, that a termination of the entire Agreement (as compared with a Project Schedule) shall only take place if the breach is material with respect to this Agreement as a whole or of a material provision of all of the Project Schedules. Either Blueprint or Ventana also may terminate this Agreement (and any or all Project Schedules) immediately by written notice to the other Party, if the other Party becomes insolvent, makes or has made an assignment for the benefit of creditors, is the subject of proceedings in voluntary or involuntary bankruptcy instituted on behalf of or against it (except for involuntary bankruptcies which are dismissed within ninety (90) days) or has a receiver or trustee appointed for substantially all of its property. Regardless of which Party terminates under this Section 12.2.1, Ventana shall cease performing all work not necessary for the orderly close-out of the applicable Activities and for fulfillment of any regulatory requirements.

12.2.2. Effect of Termination by Blueprint for Cause. In the event of termination by Blueprint pursuant to Section 12.2.1, in addition to any other remedies Blueprint may have under Applicable Laws, if requested by Blueprint, the Parties shall promptly meet to prepare a close-out Project Schedule and Ventana also shall use Commercially Reasonable Efforts to conclude or transfer such Project(s), as instructed by Blueprint, as expeditiously as reasonably possible. With respect solely to the Blueprint Products being developed or Commercialized under the terminated Project(s), upon Blueprint's notice, Ventana shall provide and the Parties shall negotiate in good faith to select and agree upon and implement, one or more Replacement Diagnostic Solutions that are reasonably acceptable to Blueprint.

12.2.3. Effect of Termination by Ventana for Cause. In the event of termination by Ventana pursuant to Section 12.2.1, in addition to any other remedies Ventana may have under Applicable Laws, Blueprint shall pay Ventana any outstanding amounts due in accordance with this Agreement prior to or in connection with such termination.

12.3. Termination by Blueprint Other Than for Cause.

12.3.1. Other Blueprint Termination Rights. Blueprint may terminate any individual Project Schedule upon: (i) thirty (30) days' prior written notice to Ventana in the event of a Drug Development Failure, and (ii) thirty (30) days' prior written notice at any time and for any (or no) reason.

12.3.2. Effect of Blueprint Termination. In the event of a termination by Blueprint under this Section 12.3, with regard to the terminated Project(s): (i) Ventana shall cease performing all work not necessary for the orderly close-out of the applicable Activities, (ii) Ventana shall wind down such Project(s) in accordance with all regulatory requirements, and (iii) Blueprint shall pay Ventana all amounts due for Activities performed prior to the date of termination and on account of winding up such Project. If the Ventana Assay has entered Ventana's design control and Blueprint terminates an individual Project Schedule under part (ii) of Section 12.3.1, then […***…].

12.4. Termination by Ventana Other Than for Cause.

12.4.1. Other Ventana Termination Rights. Any Project hereunder may be terminated by Ventana […***…], upon thirty (30) days' written notice (except that in the case of clause (iii)(d), one hundred and eighty (180) days' written notice shall be required with respect to any Market for which Regulatory Approval has been obtained for a Ventana IVD) if: […***…]. In the case of termination pursuant to clause (a), (c) or (d) of this Section 12.4.1, Ventana shall have the right to exercise any such termination right only on a Market-by-Market basis with respect to the applicable Market(s).

12.4.2. Effect of Ventana Termination. In the event of a termination by Ventana under Section 12.3.1, with regard to the terminated Project Schedule(s): (i) the Parties shall promptly meet to prepare a close-out Project Schedule, (ii) Ventana shall cease performing all work not necessary for the orderly close-out of the applicable Activities or for the fulfillment of any regulatory requirements, (iii) Ventana shall use Commercially Reasonable Efforts to conclude or transfer such Project(s), as instructed by Blueprint, as expeditiously as reasonably possible and in accordance with all regulatory requirements, and (iv) Blueprint shall pay Ventana any outstanding amounts due for Activities performed prior to or in connection with such termination. Without limitation of the last sentence of Section 12.4.1, in the event Ventana terminates an individual Project under parts (ii) or (iii) of Section 12.4.1, then solely with respect to any Blueprint Product that is the subject of the terminated Project(s), at Blueprint's request, the Parties shall negotiate in good faith to select and agree upon and implement one or more Replacement Diagnostic Solutions with respect to the applicable country(ies) in the Markets that are reasonably acceptable to both Parties.

12.5. Return of Materials and Confidential Information. At the earlier of completion or termination of a particular Project (or this Agreement as a whole), and except as otherwise permitted herein, each Party shall destroy or return at the other Party's expense and election, Project-related Materials (other than Generic Leftover Materials) and Confidential Information of the other Party. Notwithstanding the foregoing, the non-requesting Party shall be permitted to retain such Confidential Information: (i) to the extent necessary or useful for purposes of performing any continuing obligations or exercising any ongoing licenses or other rights hereunder and, in any event, a single copy of such Confidential Information for archival purposes, and (ii) any computer records or files containing such Confidential Information that have been created solely by such non-requesting Party's automatic archiving and back-up procedures, to the extent created and retained in a manner consistent with such non-requesting Party's standard archiving and back-up procedures, but not for any other uses or purposes.

12.6. Non-Exhaustive Remedy. Except as otherwise expressly provided herein, termination of this Agreement (either in its entirety or with respect to one (1) or more Project Schedules)) in accordance with the provisions hereof shall not be construed as an election of remedies in lieu of those remedies that might otherwise be available under or in connection with this Agreement.

12.7. Survival. Termination or expiration of this Agreement will not relieve either Party of any liability which accrued hereunder prior to the effective date of such termination, nor preclude either Party from pursuing all rights and remedies it may have hereunder at law or in equity with respect to any breach of this Agreement, nor prejudice either Party's right to obtain performance of any obligation arising hereunder. Sections 3.2.2, 3.2.4, 3.3, 4.1.2, 4.2, 4.7.3, 4.7.4, 4.7.5, 4.8, 5.1 (last sentence only), 5.9.1, 5.9.3, and 5.9.4 (but only to the extent that at the time of such termination or expiration Ventana is obligated to provide a Replacement Diagnostic Solution to Blueprint), 5.10, 5.11, 6.1 and 6.2 (in each case solely as applicable to payment obligations that have accrued prior to the effective date of such termination or expiration), 6.3, 6.4, 6.5, 7 (subject in the case of Sections 7.1.1 and 7.2.2 to the relevant periods stated therein, as applicable), 8, 9.1 (including the third sentence of Section 4.3 to the extent necessary to give effect thereto), 9.3 (but only with respect to the grant set forth in part (i)), 9.6, 12, 13.4, 14, 15 and 16 shall

survive any termination or expiration of this Agreement, as the case may be.

13. WARRANTIES AND DISCLAIMERS

13.1. General Warranties. Each Party hereby represents and warrants to the other Party as of the Effective Date that: (i) it is a corporation duly organized, validly existing, and in good standing under Applicable Laws, (ii) it has obtained all necessary consents, approvals and authorizations of all Regulatory Authorities (both inside and outside the Markets) and other Persons required to be obtained by it in connection with this Agreement, (iii) the execution, delivery and performance of this Agreement have been duly authorized by all necessary corporate action on its part, (iv) it has, to the best of its knowledge, the right to grant the applicable rights and licenses provided for under this Agreement, (v) all Samples that it provides to the other Party hereunder shall comply with the applicable Sample Requirements, and (vi) it shall perform its obligations and exercise its rights under this Agreement in compliance with Applicable Law.

13.2. No Inconsistent Agreements. Each of Ventana and Blueprint further hereby represents, warrants and covenants to the other Party that during the Term it will not grant or convey to any Third Party any right, license or interest in any Intellectual Property that is, or would become, inconsistent with the rights and licenses expressly granted to the other Party under this Agreement.

13.3. No Debarment Nor Prohibited Payments. Each Party hereby certifies that it will not and has not employed or otherwise used in any capacity the services of any Persons debarred under Title 21 United States Code Section 335a in performing any Activities under this Agreement. Each Party further represents and warrants that in connection with the subject matter of this Agreement: (i) none of its employees, agents, officers or directors is a Foreign Official as defined in the U.S. Foreign Corrupt Practices Act, (ii) it will not make, accept or request any payment, either directly or indirectly, of money or other assets to any Third Party where such payment would constitute violation of any Applicable Laws, including the U.S. Foreign Corrupt Practices Act and the UK Bribery Act 2010, (iii) regardless of legality, it shall neither make, accept nor request any such payment for the purpose of improperly influencing the decisions or actions of any Third Party, (iv) it shall report any suspected or actual violation of this Section 13.3 to the other Party upon becoming aware of the same.

13.4. Disclaimers. EXCEPT AS EXPRESSLY PROVIDED IN THIS ARTICLE 13, NEITHER PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES TO THE OTHER PARTY HEREUNDER, EXPRESS, IMPLIED, OR STATUTORY, AND EACH PARTY HEREBY DISCLAIMS ANY AND ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR FOR NON-INFRINGEMENT OF A PATENT, TRADEMARK OR OTHER INTELLECTUAL PROPERTY RIGHTS.

14. INDEMNIFICATION AND LIMITATIONS ON LIABILITY

14.1. Indemnification by Ventana. Ventana shall defend, indemnify and hold each of Blueprint, its Affiliates and their respective directors, officers, employees and agents, together with the successors and assigns of any of the foregoing (each, a "Blueprint Indemnitee") harmless from and against any and all claims, suits, actions, demands or judgments made by a Third Party (collectively, "Third Party Claims") and any and all resultant liabilities, damages, settlements, penalties, fines, costs or expenses (including reasonable attorneys' fees) ("Liabilities") to the extent that such Third Party Claims and Liabilities arise out of, or in connection with this Agreement and: (i) a Ventana Indemnitee's gross negligence or willful misconduct, (ii) a Ventana Indemnitee's violation of Applicable Laws, (iii) the breach by Ventana of any of its representations and warranties or obligations under this Agreement, (iv) personal injury or death caused by the use or administration of the Ventana IVD hereunder; provided, however, that Ventana's obligations under this Section 14.1 shall be excused to the extent that such Third Party Claims or Liabilities

arise out of (a) a Blueprint Indemnitee's gross negligence or willful misconduct, (b) a Blueprint Indemnitee's violation of Applicable Laws, or (c) the breach by Blueprint of any of its representations, warranties or obligations under this Agreement.

14.2. Indemnification by Blueprint. Blueprint shall defend, indemnify and hold each of Ventana, its Affiliates, and their respective directors, officers, employees and agents, together with the successors and assigns of any of the foregoing (each, a "Ventana Indemnitee") harmless from and against any and all Third Party Claims and any and all resultant Liabilities, to the extent that such Third Party Claims and Liabilities arise, out of, or in connection with this Agreement, and: (i) a Blueprint Indemnitee's gross negligence or willful misconduct, (ii) a Blueprint Indemnitee's violation of Applicable Laws, (iii) the breach by Blueprint of any of its representations and warranties or obligations under this Agreement, and (iv) personal injury or death caused by the use or administration of a Blueprint Product, and (v) medical malpractice occurring in connection with any Clinical Trials of a Blueprint Product; provided, however, that Blueprint's obligations under this Section 14.2 shall be excused to the extent that such Third Party Claims or Liabilities arise out of (a) a Ventana Indemnitee's gross negligence or willful misconduct, (b) a Ventana Indemnitee's violation of Applicable Laws, or (c) the breach by Ventana of any of its representations, warranties or obligations under this Agreement.

14.3. Procedure. A Party seeking indemnification under Section 14.1 or Section 14.2 (an "Indemnitee"), shall notify the other Party (the "Indemnitor") upon becoming aware of any Third Party Claim that may be subject to indemnification under this Section 14. Failure to provide such notice shall not constitute a waiver or release of the Indemnitee's rights to indemnification, except to the extent that such delay or failure materially prejudices the Indemnitor. The Indemnitee shall cooperate reasonably with the Indemnitor and its legal representatives in connection with the investigation and defense of any Third Party Claim or Liability covered by this Section 14. Neither Party may enter into any settlement, consent judgment or other voluntary final disposition of any Third Party Claim or Liability for which an Indemnitee seeks indemnification hereunder without the prior written consent of the other Party, if such settlement would: (i) impose any monetary obligation on the other Party or any of its Affiliates, (ii) constitute an admission of guilt or wrong-doing by the other Party or any of its Affiliates, or (iii) require the other Party or any of its Affiliates to submit to an injunction or otherwise limit the other Party's or any of its Affiliates' rights under this Agreement.

14.4. Limitation of Damages. EXCEPT IN THE EVENT OF THE GROSS NEGLIGENCE, INTENTIONAL BREACH OR FRAUD OF A PARTY, OR A PARTY'S WILLFUL AND ONGOING BREACH OF ITS OBLIGATIONS UNDER ARTICLE 7, NEITHER PARTY NOR ANY OF ITS AFFILIATES OR (SUB)LICENSEES SHALL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY, MULTIPLE OR OTHER SIMILAR DAMAGES (INCLUDING ANY CLAIMS FOR LOST PROFITS OR REVENUES) ARISING FROM OR RELATING TO THIS AGREEMENT. EXCEPT FOR LIABILITIES ARISING OUT OF THIRD PARTY CLAIMS UNDER SECTIONS 14.1 OR 14.2 (WHICH LIABILITIES, REGARDLESS OF THEIR CHARACTERIZATION BY SUCH THIRD PARTY, SHALL BE CONSIDERED DIRECT DAMAGES HEREUNDER), […***…].

14.5. Insurance. During the Term and until the last Project conducted under this Agreement, each Party shall maintain reasonable and customary liability insurance under this Agreement, or the equivalent amount in self-insurance. It is expressly understood that this requirement does not, in any way, represent that the types and minimum limits of insurance specified herein are sufficient or adequate to protect a Party's interests or liability.

15. DISPUTE RESOLUTION

15.1. Resolution of Disputes by Senior Officers. Any unresolved disagreement or dispute ("Dispute") arising at the JSC or otherwise shall be referred to the Parties' respective senior officers

designated below (the "Senior Officers"), or their respective designees, for resolution through good faith negotiations over a period of up to thirty (30) days. To the extent that a Party's Senior Officer delegates his/her responsibility for resolution of a Dispute to another officer of such Party, such Party shall ensure that the designee has all necessary and appropriate authority to fully resolve the Dispute on behalf of such Party. No such Senior Officer shall be a Party's representative on the JSC or any other Committee hereunder. Such Senior Officers are as follows:

For Blueprint: Chief Executive Officer
For Ventana: The individual to whom Ventana's most senior JSC member reports.

15.2. Arbitration. Except for those matters for which a Party has final decision-making pursuant to Section 10.6 and as set forth in Section 15.8, any Dispute between the Parties arising in connection with this Agreement or their performance hereunder not resolved pursuant to Section 15.1 shall be finally resolved through binding arbitration. The arbitration shall be conducted pursuant to the Commercial Arbitration Rules and Supplementary Procedures for Large Complex Disputes of the American Arbitration Association ("AAA") and the provisions of this Section 15.2.

15.3. Arbitration Panel. The arbitration shall be conducted by a panel of three (3) arbitrators. Within thirty (30) days after the initiation of the arbitration, each Party will nominate one individual to act as an arbitrator, and the two arbitrators so named will then jointly appoint the third arbitrator within thirty (30) days of their appointment, who will serve as chairperson of the arbitration panel. All three (3) arbitrators must be independent Third Parties having at least ten (10) years of dispute resolution experience (including judicial experience) or legal or business experience in the biotechnology, pharmaceutical or diagnostics industry. If any Party fails to timely nominate its arbitrator, or if the arbitrators selected by the Parties cannot agree on the individual to be named as chairperson within such thirty (30) day period, the AAA will make the necessary appointments for such arbitrator(s) or the chairperson. Once appointed by a Party, such Party will have no ex parte communication with its appointed arbitrator.

15.4. Location and Proceedings. The place of arbitration will be in Wilmington, Delaware or such other venue as the Parties may mutually agree. The arbitration proceedings and all communications with respect thereto will be in English. Any written evidence originally in another language will be submitted in English translation accompanied by the original or a true copy thereof. The arbitrators have the power to decide all matters in Dispute, including any questions of whether or not such matters are subject to arbitration hereunder. The decisions of the arbitrators shall be final and binding on the Parties and shall not be subject to appeal.

15.5. Limitation on Awards. Except as permitted in Section 14.4, the arbitrators shall have no authority to award any punitive, exemplary, consequential, indirect, special or other similar damages. Each Party shall bear its own costs and expenses (including attorneys' fees and expert or consulting fees) incurred in connection with the arbitration. The Parties shall equally (50:50) share the arbitrator's fees and any other administrative costs and expenses associated with the arbitration.

15.6. Confidentiality. Neither Party, nor any of the arbitrators, shall be permitted to disclose the existence, content or results of any arbitration proceedings pursuant to this Article 15, without the prior written consent of both Parties.

15.7. Governing Law. The formation, existence, performance, validity and all aspects of this Agreement shall be governed by and construed in all respects in accordance with the laws of the State of Delaware, U.S., 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.

15.8. Intellectual Property Disputes. Notwithstanding anything herein to the contrary, any and all issues regarding the scope, inventorship, construction, validity, enforceability or ownership of the Background Intellectual Property of each Party, the Blueprint Inventions, the Ventana Inventions and the Joint Inventions shall be determined in a court of competent jurisdiction under the local patents laws of the

jurisdictions having issued the Intellectual Property in question.

16. MISCELLANEOUS

16.1. Assignment.

16.1.1. Permitted Assignments. Neither Party has the right to assign its rights or obligations under this Agreement without the prior written consent of the other Party (such consent not to be unreasonably withheld, conditioned or delayed); provided, however, that (i) either Party may assign this Agreement and all of its rights and obligations hereunder, without such consent, to a person that acquires all or a majority of the shares or assets of such Party (or the business or assets to which this Agreement pertains) whether by merger, consolidation, reorganization, acquisition, sale, license or otherwise, and (ii) each Party may assign this Agreement and all of its rights and obligations hereunder, without such consent, to a Divisional Affiliate if the assigning Party remains liable and responsible for the performance and observance of all of the Divisional Affiliate's duties and obligations hereunder. Any assignment not in accordance with this Section 16.1 shall be void.

16.1.2. Assignment of One or More Project Schedules. In the event that Blueprint or its Affiliates have agreed in writing with a Third Party to exclusively license (or otherwise sell, transfer or divest) Blueprint's or its Affiliates' rights in a Blueprint Compound or a Blueprint Product to a Third Party, either in their entirety or with respect to one or more Markets, and Blueprint desires in connection therewith to assign to a Third Party any Project Schedule and its rights in connection therewith, without limitation to Section 16.1.1, Blueprint shall have the right to assign such Project Schedule to such Third Party pursuant to this Section 16.1.2 as follows: (i) in the case of any such Third Party that does not constitute a Qualified Assignee, only with the written consent of Ventana, not to be unreasonably withheld or delayed; (ii) in the case of any such Third Party that does constitute a Qualified Assignee, upon notice to Ventana without any requirement that Ventana provide consent.

16.1.3. Assignments to Qualified Assignees. If Blueprint and a Third Party who is a Qualified Assignee consent, and (i) if such Qualified Assignee has executed a companion diagnostic collaboration agreement with Ventana in the five (5) years prior to such time, then Ventana shall offer to novate the Project Schedules applicable to such Blueprint Compound or Blueprint Product to such Qualified Assignee under the terms of such companion diagnostic collaboration agreement between Ventana and the Qualified Assignee, and (ii) if such Qualified Assignee has not executed a companion diagnostic collaboration agreement with Ventana in the five (5) years prior to such time, then Ventana shall offer to novate the Project Schedules applicable to such Blueprint Compound or Blueprint Product to such Qualified Assignee under the terms of a companion diagnostic collaboration agreement with such Qualified Assignee on terms and conditions that are substantially similar to those contained herein, but in no event less favorable to such Qualified Assignee than Ventana's then-current template master collaboration agreement for companion diagnostics.

16.1.4. Rights to Intellectual Property of a Permitted Assignee. The rights to Intellectual Property, data and materials: (i) controlled by a Third Party permitted assignee of a Party or any Person that is an affiliate of such Third Party immediately prior to such assignment, which Intellectual Property, data and materials were controlled by such assignee or any such affiliate (and not such Party) immediately prior to such assignment (other than as a result of a license or other grant of rights by such Party or its Affiliates to, or for the benefit of, such Third Party or such affiliate); or (ii) controlled by a Third Party that acquires all or a majority of the shares or assets of such Party (or the business or assets to which this Agreement pertains) whether by merger, consolidation, reorganization, acquisition, sale, license or otherwise, after the Effective Date, or by any Person that is an affiliate of such Third Party immediately prior to such acquisition,

which Information, materials and intellectual property were controlled by such Third Party or any such affiliate (and not such Party) immediately prior to such acquisition (other than as a result of a license or other grant of rights by such Party or its Affiliates to, or for the benefit of, such Third Party or such affiliate), in each case ((i) and (ii)), shall be automatically excluded from the rights licensed or granted to the other Party under this Agreement; provided, that in each case ((i) and (ii)), that such exclusion shall not continue to apply with respect to such Intellectual Property, data or materials to the extent that such Party uses, practices or incorporates such Intellectual Property, data or materials in its development Activities under a Project Schedule after such assignment or acquisition. Unless otherwise agreed by the Parties, for purposes of any Project Schedule, the exclusion set forth in this Section 16.1.4 shall not apply to Intellectual Property, data and materials controlled by any Third Party that becomes a Qualified Assignee with respect to such Project Schedule pursuant to Section 16.1.2 or 16.1.3.

16.2. Counterparts. This Agreement and any Project Schedule hereunder may be signed in two (2) or more counterparts (electronic transmission of scanned signatures included), each of which shall be deemed an original, but all of which shall constitute one and the same instrument. After electronic transmission of scanned signatures the Parties shall, upon either Party's request, execute and exchange documents with original signatures.

16.3. Covenant Regarding Divisional Affiliates.

16.3.1. Ventana Covenant. Ventana hereby covenants to Blueprint that in the event that Ventana requires the services of any Affiliate covered by clause (ii) of the definition of a Ventana "Divisional Affiliate" to perform Ventana's obligations under this Agreement, Ventana shall ensure that any employee or agent of such Divisional Affiliate that is engaged in the Pharmaceutical Field does not access Blueprint's Confidential Information held by Ventana.

16.3.2. Blueprint Covenant. Blueprint hereby covenants to Ventana that in the event that Blueprint requires the services of any Affiliate covered by clause (ii) of the definition of a Blueprint "Divisional Affiliate" to perform Blueprint's obligations under this Agreement, Blueprint shall ensure that any employee or agent of such Divisional Affiliate that is engaged in the Diagnostic Field does not access Ventana's Confidential Information held by Blueprint.

16.4. Entire Agreement. This Agreement sets out the entire agreement and understanding between the Parties regarding the subject matter of this Agreement and supersedes all prior discussions, arrangements and agreements, whether oral or in writing or which may be inferred from the conduct of the Parties. That certain Services Agreement by and between the Parties effective May 27, 2015 is hereby terminated and superseded by mutual agreement; provided, however, that any Confidential Information exchanged thereunder (and any Confidential Information exchanged under that certain Mutual Non-Disclosure Agreement for Pharmaceutical Related Diagnostics by and between the Parties effective as of the 27th day of January, 2014) shall be subject to Article 7 of this Agreement, and provided, further, that that certain Exhibit A, effective as of August 3, 2015 to that Services Agreement shall be deemed to be a Project Schedule subject to this Agreement, which Project Schedule is hereby ratified and affirmed by the Parties in its entirety.

16.5. Force Majeure. Neither Party shall be liable for failure or delay in performance under this Agreement due to force majeure causes such as an act of God, strike, lockout or other labor dispute, civil commotion, sabotage, fire, flood, explosion, acts of any government, any other similar causes not within the reasonable control of the Party affected (a "Force Majeure Event"). In the event either Party is unable to perform any of its obligations hereunder due to a Force Majeure Event, such non-performing Party shall promptly notify the other Party. Performance hereunder shall be promptly resumed after the applicable Force Majeure Event has been remedied. If the Force Majeure Event lasts for more than sixty (60) days, the other Party may terminate this Agreement or any Project Schedule by written notice to the non-performing Party, and for purposes of consequences of termination, solely clauses (i) and (ii) only of Section

12.3.2 shall apply with respect to such termination.

16.6. Notice. All notices under this Agreement shall be in writing and shall be sent by registered or certified mail, postage prepaid, or by overnight courier service, to the attention of the general counsel at the addresses of the respective Parties set forth in the first paragraph of this Agreement or to such other address as the Party to whom notice is to be given may have provided to the other Party. Such notice shall be deemed to have been given (i) as of the date delivered if such notice is delivered by hand, or (ii) on the second Business Day (at the place of delivery) after deposit with an internationally recognized overnight delivery service.

16.7. Relationship of the Parties. The relationship of the Parties is that of independent contractors.

16.8. No Third Party Beneficiaries. No provision of this Agreement is intended to confer any rights, benefits, remedies, obligations or liabilities hereunder upon any person or entity other than the Parties hereto and their respective successors and assigns.

16.9. Use of Parties' Names. The Parties will agree upon an initial form of press release regarding their execution and entering into this Agreement, and which is intended to be issued on or promptly after the Effective Date as mutually agreed to by the Parties. Thereafter, neither Party shall make (or have made on its behalf) any oral or written release of any statement, information, advertisement or publicity in connection with this Agreement which uses the other Party's name, symbols, or trademarks without the other Party's prior written approval.

16.10. Validity/Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision which shall remain in full force and effect.

16.11. Waiver; Modification of Agreement; Non-Exhaustion of Remedies. No waiver, amendment, or modification of any of the terms of this Agreement shall be valid unless in writing and signed by authorized representatives of both Parties. Failure by either Party to enforce any rights under this Agreement shall not be construed as a waiver of such rights nor shall a waiver by either Party in one or more instances be construed as constituting a continuing waiver or as a waiver in other instances. The rights and remedies provided herein are cumulative and do not exclude any other right or remedy provided by Applicable Law or otherwise available except as expressly set forth herein.

[*Signatures appear on subsequent page*]

In witness whereof, Ventana and Blueprint, intending to be legally bound, have executed this Agreement as of the Effective Date by their respective duly authorized representatives.

Blueprint Medicines Corporation	**Ventana Medical Systems, Inc.**
By: /s/ Jeffrey Albers	By: /s/ Douglas Ward
Name: Jeffrey Albers	Name: Douglas Ward
Title: President and CEO	Title: VP & Life Cycle Leader, CDx

[Signature Page to Master Collaboration Agreement]

Project Schedule #1

DEVELOP A PREMARKET APPROVAL (PMA) READY AUTOMATED IHC IUO ENROLLMENT ASSAY FOR FGF19

Project Snapshot:

Company: Blueprint Medicines Corporation	**Intended Use(s):** Hepatocellular carcinoma ("HCC")
Drug: BLU-554	**Pharmaceutical Class:** Small molecule
Signaling Pathway: FGFR4	**Assay Target(s):** FGF19
Assay Needed: FGF19 IHC	**PMA to be submitted for**: FGF19 IUO IHC

Capitalized terms used in this Project Schedule and defined in the Master Collaboration Agreement between the Parties dated as of March 1, 2016 (the "Collaboration Agreement") shall have the meanings ascribed therein.

Effective Date: March 1, 2016

Scope of Work Summary

1. IUO Development Stage

a. Goal: to prepare an analytically validated, Investigational Use Only Assay using the […***…] antibody, the Benchmark ULTRA platform and OptiView detection and verified to the United States' FDA specifications that may be used to select patients in registrational trial(s) of BLU-554 in hepatocellular carcinoma ("HCC").

b. Anticipated Timeline […***…] for HCC (the "Intended Use"). Ventana will use commercially reasonable efforts to have Ventana IUO ready for BLU-554 pivotal Clinical Trials. In the event the Ventana IUO will not be ready, a Joint Project Team will identify contingencies to select patients for such trials such as incorporating the Ventana CAP CLIA Lab.

c. Estimated Fees to Blueprint for the Intended Use: […***…] (excluding passed through[1] and optional costs as described further, and assuming Blueprint has elected to […***…])

2. Clinical Development Stage and Product Registration

a. Goals: (i) to use the Ventana IUO to determine patient eligibility in Clinical Trials of BLU-554, and collect data from those trials to demonstrate clinical utility of the Assay for FDA approval; (ii) conduct Inter-laboratory-Reproducibility study, a diagnostic clinical study needed for FDA submission; (iii) to seek product approval and/or registration with global regulatory authorities.

b. Anticipated Timeline: dependent on Blueprint's clinical development plan

c. Markets: Based on this plan, Ventana is expected to seek registration for the Ventana IUO in the United States and countries that recognize the CE/ IVD self- registration process (including, but not limited to, […***…]). For clarity, […***…] do not permit self- declaration and require studies that are not in the scope of this Project Schedule, unless added by mutual agreement under a new Project Schedule. Unless otherwise agreed by the Parties in writing, for purposes of the Agreement and this Project Schedule, "Markets" means the United States and countries that recognize the CE/ IVD self- registration process (including, but not limited to, […***…]).

[1] Generally, tissue acquisition pass through costs […***…].

d. Estimated Cost to Blueprint for the Intended Use: […***…] (excluding passed through costs).

3. Commercialization

a. Goal is to prepare for market launch in the Markets listed above. Timelines and, if any, a budget/cost estimate to be detailed in separate Commercialization Plan and/or Project Schedule as outlined in Collaboration Agreement.

Detailed Scope of Work and Budget

Stage 1: IUO Development Stage

At the initiation of Stage 1, Blueprint and Ventana will agree to develop an IUO for BLU-554 in HCC. A Joint Project Team (JPT) will be created, comprised of functional subject matter expert representatives of each party. The leaders of the Joint Project Team will be a CDx Project Leader from Ventana and Project Manager from Blueprint. Matters before the JPT will be decided by consensus.

The final Ventana IUO will consist of three key components:

1) An assay system that is optimized and analytically validated for the Intended Use,

2) An optimized interpretation guide with validated Cutoff Value(s) for patient selection, and

3) A validated cGMP manufacturing process for production of test kit reagents.

The Ventana IUO will be developed under full design control as per Ventana's Product Development Process ("PDP"), and will be developed through stage gates known as Early Concept ("EC"), Design Goals ("DG"), Design Input ("DI"), and Design Output ("DO"). The activities and key deliverables are outlined in tables to this document. Formal Design Reviews ("FDR") occur at the end of each stage as governed by the PDP, and summary PowerPoint presentations required will be shared with Blueprint as the key Deliverables for each stage gate, including where expressly listed for each Phase of the Project below, and for each such PowerPoint presentation the JPT shall agree upon the level of detail to be included. Supporting information and data will also be shared upon agreement by the respective Parties' Project Leaders on the Joint Project Team. The JPT shall also coordinate and approve Ventana's advancement to each subsequent Phase of this Project Schedule (and it is anticipated and agreed that such approval/advancement could occur in parallel with or prior to the completion of the preceding Phase(s)). A portfolio committee within Ventana governs the PDP and assigns dedicated resources to projects, and Ventana will ensure that the Ventana members of the Joint Project Team are appropriately allocated and dedicated to the project.

The manufacturing of critical raw material, the anti-FGF19 antibody, clone […***…], will be manufactured by a Divisional Affiliate of Ventana, Spring BioScience Corporation, in Pleasanton, CA, using previously determined manufacturing processes.

Once […***…] lots of critical raw material have been produced and are available for development studies, the Assay will be analytically validated using OptiView detection and on the Benchmark ULTRA platform. A scoring/ interpretation system, developed in part through the use of the prototype FGF19 Assay previously used in the Ventana CAP/ CLIA lab, will be optimized, and Cutoff Value(s) selected for patient selection will be verified. The scoring system development and Cutoff Value(s) selection will be a joint effort, relying on each Party's biostatisticians to analyze patient outcomes and FGF19 expression levels from earlier trials. Ventana will verify that the Assay can reproducibly identify patients above and below the selected Cutoff Value(s).

Following scoring optimization and Cutoff Value(s) verifications, Ventana will produce necessary training materials for study pathologists, and will verify control tissues and instructions for laboratories to use to complete the enrollment Assay system. Verification studies including FDA-required preclinical studies designed to understand the impact of tissue sample variability on Assay performance will also be completed prior to the start of the registrational Clinical Trial.

Ventana will prepare a pre-submission briefing package, and submit to FDA, to align with FDA on the development strategy for the product. If needed, Ventana will prepare and seek a Significant Risk Determination ("SRD") from the FDA,

hold a joint meeting with FDA (with Blueprint participating as needed), and prepare and receive an Investigational Device-Exemption (IDE) for the Ventana Assay to be used for the selection of patients for inclusion in Clinical Trials evaluating BLU-554. Ventana will then receive the IDE in accordance with FDA pre-IDE feedback and 21CFR812 requirements.

IUO Development will be initiated for HCC as the Intended Use. This Project Schedule does not include a second Intended Use. If a second Intended Use is needed a separate Project Schedule will be developed.

1.0 Design Control Overview and Stage Gates (EC, DG, DI, DO)

1.1 Projection Initiation/Early Concept Phase (EC)

The key objectives of the Early Concept phase are:

1. Resource allocation, including creation of Ventana Project Team. Ventana Project Team should consist of, but not be limited to, personnel from the following functions: Project Management, Development, Pathology, Marketing, Regulatory, Clinical, Quality, and Statistics ("Ventana Project Team")

2. Complete freedom to operate (FTO) and intellectual property (IP) analysis

3. If needed, antibody transfer and initiation of antibody manufacturing at Ventana

Phase 1.0 Summary:

1.0 Project Initiation/Early Concept Phase Activities, Deliverables, and Milestones			
Milestone	**Activities and Deliverables**		**Milestone Fee and Payment Terms**
Resource Allocation	☐ Written notice from Ventana that Ventana Portfolio Committee has approved project to take the Intended Use through Product Feasibility (Design Input Stage Gate) and to complete IUO Verification; ☐ Summary PowerPoint presentation to be shared for the following, when applicable: o Project Scope o Resource Requirements o Key Drivers o Initial Regulatory Classification(s) o Determination of New Technology ☐ Written notice from Ventana specifying Ventana Project Team members		[…***…]
Freedom to Operate Analysis	☐ Ventana-Blueprint Teleconference or Face to Face meeting to discuss IP/FTO legal assessment		[…***…]
Third Party License Agreement	☐ TBD, if necessary, pending results of FTO analysis		TBD if needed
Antibody Production	☐ Spring to optimize and scale antibody production ☐ If needed, Spring to manufacture three lots for development studies		N/A
Anticipated Timelines	[…***…]	**Estimated Cost for Phase**	**[…***…]**

1.1 Analysis Phase – Design Goal (DG) Stage Gate

The key objectives of the design goal phase are:

1. Determine the feasibility of an IUO Assay that supports the Intended Use
2. Identify the risks and develop a risk mitigation plan
3. Set the Design Goals
4. Source and qualify tissues in the Intended Use to support the feasibility and verification studies.
5. Formal project initiation by Ventana Marketing to develop launch plan and by Ventana Regulatory to develop regulatory strategy.

Phase 1.1 Summary:

1.1 Analysis Phase Activities, Deliverables, and Milestones			
Milestone	**Activities and Deliverables**		**Milestone Fee and Payment Terms**
Project Kickoff	▯ Upon approval of EC milestone, schedule first JPT meeting to build relationship, align on collaboration goals & project governance, and review project scope and timelines ▯ Set-up subsequent JDC and sub-team meetings		N/A
Sourcing for Analysis Phase	▯ Ventana to identify and acquire mutually agreed upon materials needed for analysis phase, including but not limited to the following: o Primary and metastatic tissues for the Intended Use o Pharma arrays ▯ Create multi-tissue blocks representing dynamic range of expression (i.e., high, medium, low)		[…***…]
Establish Technology Feasibility	▯ Preliminary testing & optimization of antibody on a BenchMark ULTRA instrument system using OptiView DAB IHC detection kit o Leverage prototype Assay development/validation data toward new assay		N/A
Completion of IUO Assay Technology Feasibility (DG)	▯ Ventana to generate the following internal deliverables for Formal Design Review: o Technology Feasibility report o Design History File o Design Goals Document o Draft Global Launch Plan and Regulatory Strategy ▯ Written notice to Blueprint that IUO Assay Technology Feasibility has been completed ▯ PowerPoint summaries of Ventana activities delivered to Blueprint		[…***…]
Anticipated Timeline for Phase	**[…***…]**	**Estimated Cost for Phase (excluding pass through costs)**	**[…***…]**

1.2 Planning and Product Feasibility Phase – Design Input (DI) Stage Gate

The key objectives of the design input phase are:

1. Develop and optimize conditions for the Ventana IUO
2. Identify control tissue and complete feasibility testing
3. Develop a preliminary scoring algorithm for the interpretation guide
4. Regulatory: Pre-IDE submission to FDA

Phase 1.2 Summary:

1.2 Planning and Product Feasibility Phase Activities, Deliverables, and Milestones			
Milestone	**Activities and Deliverables**		**Milestone Fee and Payment Terms**
Sourcing for Planning and Product Feasibility Phase	☐ Ventana to identify and acquire materials needed for Planning and Product Feasibility Phase, including but not limited to the following: o Primary and metastatic tissues for the Intended Use o Multi-tissue blocks for Tour of Body/Tour of Tumor (TOT/TOB) studies o Pharma arrays o Cell lines for development		[…***…]
Antibody Assay Development and Optimization	☐ Antibody Assay Development and Optimization may include as needed: o Tissue screening and MTBs o Working titer o Diluent screen o Pretreatment screen (Antigen retrieval methods Protease) o Antibody incubation time o OptiView DAB detection o Official Titer o Accelerated Stability o Intended Use Case Staining (50 pos and 50 neg per Intended Use ☐ TOT/TOB Studies summaries into Product & Process Feasibility Report		N/A
Tissue Control Identification	☐ Formatting: o FFPE Tissue Control o Cut Sections on glass slides ☐ Feasibility Testing: o Optimization on BenchMark ULTRA o Lot to lot or case to case reproducibility as needed and determined at the JPT level to optimization across instrument systems. o Failure Mode Testing ☐ Studies to be summarized in Product & Process Feasibility Report		N/A
Preliminary Scoring Algorithm Development	☐ Define positive/negative Cutoff Value(s) using following: o Patient case review using clinical samples and outcomes data to establish a Cutoff Value o Pre-Method comparison to approved test method. o Input from pathologist with expertise in Intended Use.		N/A
Significant Risk Determination (SRD) and IDE as needed	☐ If needed, prepare and submit SRD to FDA, determine the need for IDE. ☐ Ventana to prepare IDE documentation as determined at the JPT Prepare and file IDE if needed		N/A
Completion of IUO Assay Development Feasibility (DI)	☐ Ventana to generate the following internal deliverables for Formal Design Review: o Product & Process Feasibility Report o Product Requirements Document o Trace Matrix o Design & Development Plan o Design Transfer Plan o Customer Requirements Document ☐ Notice to Blueprint that IUO Assay Development Feasibility is complete ☐ PowerPoint summary of internal deliverable contents to Blueprint		[…***…]
Anticipated Timeline for Phase	**[…***…]**	**Estimated Cost for Phase (excluding pass through costs)**	**[…***…]**

1.3 Design and Development Phase – Design Output (DO) Stage Gate

The key objectives of the Design Output phase are:

1. Optimization and validation of the interpretation guide
2. Full design verification studies for the locked Ventana IUO

3. GMP Manufacturing process validation for test kit reagents and control tissue; timing of process validation flexible depending on Project timeline
4. Production and labeling of test kits ready to use in clinical stage
5. Regulatory: data to support SRD (if needed) and IDE submission to FDA

Phase 1.3 Summary:

1.3 Design and Development Phase Activities, Deliverables, and Milestones		
Milestone	**Activities and Deliverables**	**Milestone Fee and Payment Terms**
Sourcing for Design and Development Phase	☐ Ventana to identify and acquire mutually agreed upon materials needed for Design and Development Phase, including but not limited to the following: o Primary and metastatic tissues for the Intended Use o Pharma arrays o Cell lines for control slide development	[…***…]
Optimization/ Verification of Scoring System	☐ Deliver final Interpretation Guide ☐ Provide written notice that Final Interpretation Guide is available ☐ Provide a copy of Final Interpretation Guide	[…***…]
Manufacture IUO Assay and Process Validation	☐ Manufacturing process validation plan ☐ PowerPoint summary outlining process validation and manufacturability plans ☐ Generation of IUO label for test kit ☐ Orderable IUO kits available	[…***…]
Design Verification Studies	☐ All Design Verification Studies performed as a system ☐ Parameters: Formulation of antibody must be locked and instrument protocol selections must be determined prior to initiation of studies ☐ Requirements: 150 positive and 150 negative tissues for Intended Use; scoring algorithm and Interpretation Guide are available ☐ Studies to support IUO build in operations include: o Design lot(s) formulation – lot to lot equivalency established o Accelerated stability - assign IUO build expiration dating o Immunoreactivity – Normal and neoplastic tissue screen o Repeatability/Reproducibility – Intra-day repeatability, Inter-day, and Intra-platform reproducibility to establish Assay precision ☐ Pre-analytical studies include: o Ischemia study o Fixation study o Tissue thickness (2 to 7 micron sections) ☐ Stability Studies include: o Reagent real time stability testing o Cut slide stability – for antigen stability in FFPE sections provided in IUO package insert, provided to clinical sites ☐ Reader precision studies include: o Inter-reader/Intra-reader precision o Assay migration - platform compatibility to support CE/IVD launch o Reproducibility and Robustness – multiple lots of antibody combined with multiple lots of detection across multiple instrument platforms and cases o Design lot to IUO lot equivalency o Failure Mode testing/Protocol limitations ☐ Antibody Characterization studies include o Western blot o Peptide inhibition o Immunoprecipitation ☐ PowerPoint summaries of Design Verification studies will be provided	N/A

1.3 Design and Development Phase Activities, Deliverables, and Milestones			
Milestone	**Activities and Deliverables**		**Milestone Fee and Payment Terms**
Completion of IUO Assay Verification (DO)	▯ Ventana to generate following internal Deliverables for Formal Design Review: o Design Verification Reports ▯ PowerPoint summary of internal deliverables to Blueprint ▯ Written notice that IUO Assay Verification has been completed		[…***…]
Anticipated Timeline for Phase	[…***…]	**Estimated Cost for Phase (excluding pass through costs)**	**[…***…]**

1.4 Submission Phase

The key objective is to receive IDE designation of IUO assay

Phase 1.4 Summary:

1.4 Submission Phase Activities, Deliverables, and Milestones			
Milestone	**Activities and Deliverables**		**Milestone Fee and Payment Terms**
Pre-Submission Briefing Packet and, if needed, Significant Risk Determination (SRD) and if needed, IDE preparation	▯ Ventana to create pre-submission briefing packet ▯ If needed, Ventana to prepare SRD documentation, submit to FDA to determine risk level ▯ If required, Ventana will hold joint meeting with FDA, (Blueprint will participate, as needed) ▯ If needed, Ventana to prepare and deliver, IDE documentation as determined by the FDA ▯ If needed, Ventana to prepare, seek, and receive IDE from FDA for Ventana Assay to be used in patient selection for trial inclusion		[…***…]
Anticipated Timeline for Phase	[…***…]	**Estimated Cost for Phase**	**[…***…]**

Stage 2: Clinical Development Stage and Product Registration

The Ventana IUO will be transferred to commercial laboratories and used as an enrollment Assay for global Clinical Trials of BLU-554 in HCC. For clarity, while the Ventana CAP/CLIA laboratory is qualified to be a testing lab for pivotal studies, it is Ventana's recommendation that the Ventana IUO be transferred to a commercial laboratory(ies) other than Ventana's CAP/CLIA certified laboratory for use in registrational Clinical Trials. If the Ventana IUO is not ready to be transferred to commercial laboratories for the start of an BLU-554 pivotal study, Blueprint and Ventana will negotiate in good faith the terms of separate Project Schedules (i) for patient screening using the prototype Ventana Assay at Ventana's CAP/CLIA laboratory and (ii) any resulting bridging studies that are required for the Ventana Assay to gain Regulatory Approval.

The Ventana IUO will be transferred and validated at those labs, and the lab pathologists trained and qualified by Ventana prior to enrollment for those pivotal Clinical Trials. A diagnostic clinical trial protocol will be written and a clinical site initiation visit ("SIV") will be completed at the start of each Clinical Trial, to ensure proper data capture and operations to support the clinical development of the IUO. Following Clinical Trial start and throughout the duration of the enrollment portion of the Clinical Trial, Ventana will monitor the performance of the testing lab, collecting data for the PMA submission.

In addition to the Clinical Trials involving BLU-554, a separate inter-laboratory reproducibility study (ILR) will be designed and completed ("ILR"). The ILR is a purely diagnostic Clinical Trial that does not need BLU-554 treated patients or samples. The Clinical Trial is designed and executed solely by Ventana and the data are required for a PMA application.

Near the end of the BLU-554 registrational Clinical Trial(s), Ventana will submit a modular PMA application to the FDA. Modules 1, 2, and 3 are focused primarily on the analytical performance of the Ventana Assay and the system components, and Module 4 brings in the clinical utility data to BLU-554. In addition and if needed, Ventana will prepare and submit necessary document to the Roche Diagnostics Germany Regulatory group, which will determine whether Roche may self-declare conformity to CE rules for companion diagnostics. Following declaration of conformity, Ventana may register the assay as a CDx in countries where Blueprint intends to launch BLU-554.

2.0 Set-Up and Use of IUO Assay In Clinical Trials

The key objectives of the phase are:

1. Enable patient selection in relevant Clinical Trials
2. Collect Assay performance data to support future regulatory filings

Phase 2.0 Summary:

2.0 Set-Up and Use of IUO Assay In Clinical Trials		
Milestone	**Activities and Deliverables**	**Milestone Fee and Payment Terms**
Clinical Site Initiation Visit and Assay Transfer	▯ Lab selection is at Blueprint's discretion; Ventana will provide input on lab selection and contracting upon request ▯ Ventana, Blueprint, and laboratory(ies) will work together on Data Analysis Plan (i.e., establish data collection processes and database format), and Communication Plan ▯ Ventana to perform preliminary Audits, as necessary ▯ Ventana to provide Pathologist/reader training and proficiency ▯ Ventana to lead Site and Study Initiation and Ventana IUO transfer at a minimum of […***…] ▯ Ventana to prepare Lab Readiness Report; Blueprint will be able to review report. ▯ Note: Fees listed are for sites in the USA and EU only. For sites outside the USA and EU, the Parties agree to negotiate in good faith in order to accommodate additional travels costs if any	[…***…]
First Patient Screened Milestone	▯ Ventana to provide written notice that first patient has been screened using the Ventana IUO for potential enrollment into a Clinical Trial evaluating BLU-554 ▯ Milestone to be paid one time per Intended Use	[…***…]
Clinical Site Monitoring	▯ Quarterly monitoring of laboratories by Ventana ▯ Activities will include Data Quality Assurance and Audits, as necessary ▯ Written quarterly updates will be provided to Blueprint ▯ Monitoring will cease upon final patient screen result ▯ Note: Fees listed are for sites in the USA and EU only. For sites outside the USA and EU, the Parties agree to negotiate in good faith in order to accommodate additional travels costs if any	[…***…]
IUO Kit Manufacturing	▯ […***…] of IUO kits transferred from Ventana manufacturing to Ventana clinical group; the exact number will be determined at the Joint Project Team level and depends on the number of slides as described in clinical protocol ▯ Transfer to Clinical Operations Group for use in Clinical Trials ▯ Standard Ventana unit is […***…]	[…***…]

2.1 Inter-laboratory Reproducibility Study

The key objectives of the phase are:

1. Identify qualifying labs to participate.
2. Train labs on Ventana IUO
3. Perform FDA required inter-laboratory study and include data in appropriate submissions

Phase 2.1 Summary:

2.1 Inter-laboratory Reproducibility Study		
Milestone	**Activities and Deliverables**	**Milestone Fee and Payment Terms**
Tissue Acquisition and Qualification	Ventana to identify and acquire tissues needed for ILR study	[…***…]
ILR Study	Ventana solely responsible for conducting ILR study Intended Use Cohort Generation Data collection from multiple pivotal lab sites Analysis to demonstrate concordance of Ventana IUO performance across multiple labs/customer sites Ventana will summarize findings in ILR Report, which will be made available to Blueprint	[…***…]

2.2 IVD Registration and Launch

The key objectives of the phase are:

1. To gain approval and launch IVD

Phase 2.2 Summary:

2.2 IVD Registration and Launch		
Milestone	**Activities and Deliverables**	**Milestone Fee and Payment Terms**
PMA Submission Preparation	In coordination with Blueprint, Ventana will prepare PMA Modules 1-4 Assume modular submission will be performed by Ventana	[…***…]
PMA Submission User Fees	Final modules submission	[…***…]
CE/IVD Predictive Registration	Declaration of Conformity obtained by Ventana	[…***…]
Launch Decision	Commercial Readiness Review conducted by Ventana to ensure training of operations, support and sales personnel are complete or scheduled Formal Design Review, LCM Governance approval of Launch Decision PowerPoint deliverable summarizing Commercial Readiness Review and Formal Design Review Written notice of Launch Decision to Blueprint	[…***…]
FDA Approval Milestone	Notice of PMA Approval from FDA	[…***…]

Termination of this Project Schedule under Section 12.3.1 of the Collaboration Agreement

In the event that Blueprint terminates this Project Schedule pursuant to part (ii) of Section 12.3.1 of the Collaboration Agreement, then Blueprint shall pay, as applicable, a termination fee to Ventana within thirty (30) days after receipt of an invoice therefor, the amount of which termination fee shall be determined as follows:

Termination Gate	Termination Gate Trigger	Termination Fee
1	If Blueprint serves notice of termination at any time after the initiation of the Design and Development Phase (Phase 1.3), but prior to the occurrence of Termination Gate 2	[…***…]
2	If Blueprint serves notice of termination at any time after the earlier to occur of (i) the initiation of a registrational Clinical Trial, or (ii) notification or designation that an ongoing study will serve as a registrational Clinical Trial ("Termination Gate 2"), but prior to the occurrence of Termination Gate 3	[…***…]
3	If Blueprint serves notice of termination at any time after the submission of the first PMA ("Termination Gate 3"), but prior to the occurrence of Termination Gate 4	[…***…]
4	If Blueprint serves notice of termination at any time after receipt of notice of FDA Approval for the PMA ("Termination Gate 4"), but prior to the […***…] of such FDA Approval	[…***…]

Optional Studies: Additional Platform Verifications

The Ventana IUO will first be developed and optimized on the Benchmark ULTRA automated system. The Parties may agree to complete development and platform migration studies to validate the Ventana IUO on additional Ventana platforms (e.g., BenchMark XT or GX). The cost of additional validation would depend on the time at which Blueprint decides to pursue migration, and is outlined in the table below. The timelines to complete those studies would be scoped and agreed to under a new Project Schedule, but would be capped at the costs outlined below if the decision taken in Stage 1. The most efficient time to perform any platform migration studies would be during Stage 1, when resources are most easily leveraged. Ventana and Blueprint will work together to ensure that platform migration studies are initiated at an appropriate time to align IVD approval with the global launch of the Blueprint drug in various countries and regions.

Additional testing on other instrument systems to support an ex-US launch will require enough samples to demonstrate reproducibility testing across multiple instruments (this may be a small sample set of cases including both positives and negatives but a large number of slides). These additional instrument systems would not be included with the PMA.

Optional Studies for Platform Migration

Activity	Price
Inclusion of Platform Migration to BenchMark XT or GX- Decision made prior to (DG)	[…***…]
Inclusion of Platform Migration to BenchMark XT or GX- Decision made after DG but prior to (DO)	[…***…]

Stage 3: Commercialization Stage

Approximately […***…] prior to the anticipated launch of BLU-554, the Ventana CDx, commercialization planning and launch readiness activities will begin. This will include collaboration between Ventana's and Blueprint's worldwide commercial teams. This includes worldwide registration requirements, including PMA submission in the United States and CE/IVD predictive claim registration in the EU. Further details of commercialization to be covered in separate Project Schedule, as outlined in the Collaboration Agreement.

Summary of Costs and Anticipated Timing for the Intended Use

Stage 1: IUO Development			
Phase	**Milestone**	**Milestone Fee**	**Estimated Timing**
1.0	Concept Phase	[…***…]	[…***…]
1.1	Analysis Phase	[…***…]	[…***…]
1,2	Planning and Product Feasibility Phase	[…***…]	[…***…]
1.3	Design and Development Phase	[…***…]	[…***…]
1.4	Submission Phase	[…***…]	[…***…]
Total		[…***…]	[…***…]

*Note: Assumes […***…].

Stage 2: Clinical Development Stage and Product Registration			
Phase	**Milestone**	**Milestone Fee**	**Estimated Timing**
2.0	Clinical Site Initiation Visit and Assay Transfer	[…***…]	[…***…]
2.0	First Patient Screened Milestone	[…***…]	[…***…]
2.0	Clinical Site Monitoring	[…***…]	[…***…]
2.1	Inter-laboratory Reproducibility Study	[…***…]	[…***…]
2.2	PMA Submission Preparation	[…***…]	[…***…]
2.2	CE/IVD Predictive Registration	[…***…]	[…***…]
2.2	Launch Decision	[…***…]	[…***…]
2.2	FDA Approval	[…***…]	[…***…]
Total		[…***…]	[…***…]

*Note: Assumes […***…].

Where this Project Schedule refers to passed through and other optional costs incurred by Ventana, such costs […***…].

Roles and Responsibilities

Name	Title	Phone	Address	Email Address
[…***…]	Senior Manager of Business Development	[…***…]	110 Pine Hill Road Southborough, MA	[…***…]
[…***…]	Project Leader	[…***…]	1910 E Innovation Park Dr Tucson, AZ 85755	[…***…]
[…***…]	Associate Director, Business Development	[…***…]	38 Sidney Street, Suite 200 Cambridge, MA 02139	[…***…]
[…***…]	Vice President, Translational Medicine	[…***…]	38 Sidney Street, Suite 200 Cambridge, MA 02139	[…***…]

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties hereto have caused this Project Schedule to be executed by their duly authorized representatives as of the Effective Date first written above.

Ventana Medical Systems, Inc.	**Blueprint Medicines Corporation**
By: /s/ Doug Ward	By: /s/ Jeffrey Albers
Name: Doug Ward	Name: Jeffrey Albers
Title: VP & LCL, CDx	Title: President and CEO

[Signature Page to Project Schedule #1]

Project Agreement #2

A Phase 1 Study to Assess the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Preliminary Efficacy of BLU-554 in Patients with Hepatocellular Carcinoma and Cholangiocarcinoma incorporating the Ventana FGF19 IHC Robust Prototype Assay (RPA) for Patient Enrollment.

This Project Schedule #2, effective as of March 11, 2016, is subject to the Master Collaboration Agreement (the "Agreement") effective March 1, 2016, that has been entered into by and between Blueprint Medicines Corporation a corporation formed under the laws of the State of Delaware, with offices located at 38 Sidney Street, Cambridge, MA 02139 ("Blueprint Medicines") and Ventana Medical Systems, Inc., a corporation formed under the laws of the State of Delaware with office located at 1910 E. Innovation Drive, Tucson, AZ 85755 ("Ventana").

Unless otherwise defined herein, capitalized terms used in this Project Schedule #2 shall have the definitions set forth in the Agreement.

By this Project Schedule #2, Blueprint Medicines authorizes Ventana to undertake, in accordance with the terms of the Services Agreement, the laboratory services set forth in this Scope of Work and accompanying Budget and Payment Schedule.

Overview:

This Project Schedule #2 pertains to FGF19 immunohistochemistry (IHC) analysis and result reporting for prospective patient tumor tissue samples only obtained during the course of a phase 1 clinical study conducted by Blueprint Medicines (the "Clinical Study"). The Clinical Study is titled "A Phase 1 Study to Assess the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Preliminary Efficacy of BLU-554 in Patients with Hepatocellular Carcinoma and Cholangiocarcinoma" (NCT02508467). Patient samples obtained under informed consent approved by a local or central institutional review board/ethics committee will be evaluated using an analytically-validated FGF19 IHC RPA in the Ventana CAP/CLIA laboratory located in Tucson, AZ. The assay is already validated in HCC and cholangiocarcinoma and no further validation is required.

Objectives

Samples will be evaluated prospectively from this dose-escalation study to determine FGF19 expression using the Ventana FGF19 IHC RPA in the Ventana CAP CLIA lab.

Samples

It is estimated that up to approximately […***…] will be analyzed during the course of this project; the exact number may vary pending various study-related variables. Samples will be obtained from patients with hepatocellular carcinoma or cholangiocarcinoma. Samples will be provided to Ventana as either formalin-fixed, paraffin-embedded (FFPE) tissue blocks or a set of […***…] sections on positively-charged glass slides (Superfrost Plus) in which case a minimum of […***…] will be provided. Samples will be shipped to Ventana either directly from investigational sites or by a central laboratory (Q^2 Solutions) contracted by Blueprint Medicines to manage sample logistics. The key contact for this study at Q2 Solutions is […***…], Project Manager, Q2 Solutions, Mobile […***…], Fax + […***…], […***…].

Turn Around Time (TAT) and Logistics for Sample Analysis

- TAT is 5 days and by definition starts from the time when the samples are received and accepted (Accessioned) by Translational Diagnostics Laboratory Services (TDx LS), i.e., DAY 0, until the pathology score is reported to the site or designated party.

- If applicable, Blueprint and/or its contracted clinical sites will use the Ventana LabVantage IT System for sample ordering and tracking as directed at the Project Team Level. Pathology score summaries will be made available to Blueprint or its designee (Chiltern) immediately following the TAT via Ventana's IT platform.

For cases where a sample cannot be reconciled, Ventana will contact Chiltern International to make a decision regarding whether or not to proceed with analysis of the sample. The Chiltern contact is […***…], Project Manager: […***…], Mobile […***…], Fax: […***…]. Ventana will be responsible for responding to queries generated by Blueprint Medicines or its designee regarding reconciliation of samples during the course of the study. When samples are provided to Ventana as FFPE blocks, unused tissue and slides will be shipped to the central laboratory Q2 Solutions contracted by Blueprint Medicines. Upon notification by Blueprint Medicines, samples provided as slides (including stained and unused slides) will be either be shipped to the central laboratory Q2 Solutions (or an alternative vendor) contracted by Blueprint Medicines or destroyed with documentation of sample disposition retained by Ventana.

Final Study Deliverable (Data/Results Reporting)

Final study data will be delivered in an agreed upon file format. An automatically QC'd data file will be generated and uploaded to Blueprint and/or its designees, i.e., Chiltern International as described above. The format and structure of these data will be agreed upon prior to the delivery of these data. If any data parsing or reformatting are required, then subject to Blueprint's prior written approval, additional fees and time to delivery may be incurred. A final clinical study report summarizing the study results and findings (if any) may be provided at additional time and cost and will be delivered on a mutually agreed upon schedule. Additionally all stained slides and copies of captured images will be provided on a mutually agreed upon schedule. Ventana will be responsible for responding to queries generated by Blueprint Medicines or its designee regarding reconciliation of data transfers during the course of the study.

Project Timelines

The dose-escalation stage of the Clinical Study began in 2015. Approximately […***…] patients will be enrolled in the dose-escalation stage. The dose-escalation stage will require approximately […***…] to be completed. The dose-expansion stage will require approximately […***…] to complete and will enroll […***…] patients. The timeline for enrollment of the study expansion is approximate and dependent on Blueprint's ability to identify and open investigational sites and the availability of potentially eligible patients.

Assay for Clinical Study

Ventana will be responsible for manufacture of the assay components required for analysis of samples obtained from the Clinical Study. Based upon a forecast provided to Ventana by Blueprint, Ventana will ensure that it maintains sufficient inventories of assay reagents as necessary to complete the Clinical Study. Ventana will also ensure that it has sufficient staff trained on the performance of the assay and will monitor the performance of the assay in connection with the Clinical Study.

Project Management

Ventana will assign dedicated personnel who will ensure project management and data quality.

2. Budget for Clinical Sample Analysis

All fees are in US dollars.

2.1. Assay Access Fee – FGF19 Assay

Assay Access Fee	Assay	Amount	Payment Due
Access to RPA	FGF19 IHC RPA	Waived	No charge

2.2. Clinical Sample Analysis – Itemized Fixed Costs

Itemized Laboratory Services	Description of Services	Costs	Estimated Multiplier	Projected Total Cost
Clinical Study Image Set-Up	Set-Up of Firewall between various projects by various sponsors	[…***…]	[…***…]	[…***…]
Clinical Study Set Up	Initial Clinical Study Setup	[…***…]	[…***…]	[…***…]
Database Management	Database set up, data entry, data backup and storage, data transfer to Blueprint and/or Blueprint's clinical research organization (CRO) – per sample; database will be a FDA Part 11 compliant Laboratory Information System	[…***…]	[…***…]	[…***…]

Itemized Laboratory Services	Description of Services	Costs	Estimated Multiplier	Projected Total Cost
Project Management	Management of study materials (lab manuals, study binders), deliverable milestones, timelines, Quality Control	[…***…]	[…***…]	[…***…]
Reagent New Lot Validation: Ventana Reagents (ex: antibody, probe)	Per Reagent	[…***…]	[…***…]	[…***…]
Significant Risk Determination (SRD)*		[…***…]	[…***…]	[…***…]
Investigational Device Exemption (IDE) - Significant Risk – If Needed		[…***…]	[…***…]	[…***…]
Investigational Device Exemption (IDE) Maintenance – If needed		[…***…]	[…***…]	[…***…]
IRB Submission – Annual Review (per additional year of study if needed)		[…***…]	[…***…]	[…***…]
IRB Submission – Study Maintenance (amendments, closure requests, etc., if needed)		[…***…]	[…***…]	[…***…]
Final Report	Final Report (data analysis of FGF19 in an agreed to format)	[…***…]	[…***…]	[…***…]
Projected Sub Total (excludes “if needed” line items)				[…***…]

***** Email confirmation from Kelley Wolfe on 30-Nov-2015 Ventana has determined that a SRD is not required.

2.3. Sample Analysis – Itemized Laboratory Services and Fees FGF19 Assay

	Estimated # of slides or blocks	Cost per Test	Projected Total
Slide/block accessioning fee per case	[…***…]	[…***…]	[…***…]
H&E Stain	[…***…]	[…***…]	[…***…]
H&E Pathology Review	[…***…]	[…***…]	[…***…]
IHC Negative Control (non-immune IgG) Staining	[…***…]	[…***…]	[…***…]
IHC Negative Control – Pathology Score	[…***…]	[…***…]	[…***…]
FGF19 IHC Staining	[…***…]	[…***…]	[…***…]

Staining and Pathology Testing Charges	Estimated # of slides or blocks	Cost per Test	Projected Total
FGF19 IHC Pathology Score (Total Percent of Positive Tumor Cells)	[…***…]	[…***…]	[…***…]
Clinical Sample Image – Scan* *Image capture and scan; PER STAIN upon request only, e.g., just FGF19 positives	[…***…]	[…***…]	[…***…]
PROJECTED SUB TOTAL			[…***…]

Total CAP/CLIA Laboratory Cost

Category	Projected Cost
Assay Access Fee	No Charge
CAP/CLIA Lab Itemized Fixed Costs	$ […***…]
Clinical Sample Analysis	$ […***…]
Total	$ […***…]

Payment Terms: Invoiced monthly after completion of sample analysis. For the avoidance of doubt, Blueprint Medicines will only be charged for the actual, not estimated, services performed as described herein.

All invoices should contain the following information in order for them to be processed efficiently:

- Invoice Number
- Invoice Date
- Reference to <agreed to reference point>
- Blueprint Medicines, Purchase Order Number (PO#)
- Blueprint Medicines, Project Number <may be redundant>
- Description of Services with Itemization: Stage and milestone identifications
- Deliverables
- Total Amount Due
- Payee Name and Tax ID Number
- Payment Address
- Name of requisitioner
- Contact person for any invoice questions

Additionally, invoices shall be submitted to Blueprint at the following email address: ap@blueprintmedicines.com.

All invoices will be paid by Blueprint Medicines as follows:

Credit DDA Name:	Ventana Medical Systems, Inc.
Tax Payer ID#:	[…***…]
Address:	[…***…]
Credit Bank:	[…***…]
Credit Bank address	[…***…]
Credit ABA:	[…***…]
Credit: DDA	[…***…]
Citi SWIFT Code:	[…***…]

Pass Through Expenses

The following expenses will be billed as needed and agreed by the parties:

Tissue Acquisition: This work does not require tissue acquisition by Ventana.

Other: Any unforeseen project related expenses incurred by Ventana will be discussed in good faith by the Parties and agreed to prior to Ventana submitting to Blueprint invoices due for reimbursement.

Roles and Responsibilities:

Though subject to change based on employment, the initial companies' representatives will be:

Name	Title	Phone & Fax	Address	Email Address
[…***…]	Senior Director of Business Development	[…***…]	1910 E. Innovation Park Dr., Tucson, AZ 85755	[…***…]
[…***…]	Senior Manager, Business Development	[…***…]	110 Pine Hill Road, Southborough, MA 01772	[…***…]
[…***…]	Associate Director, Business Development	[…***…]	38 Sidney Street Cambridge, MA 02139	[…***…]
[…***…]	Vice President Translational Medicine	[…***…]	38 Sidney Street Cambridge, MA 02139	[…***…]

Scope Changes

In making changes to this Work Order, the parties will seek a "least burdensome approach" and will, to the extent reasonably practicable in light of such regulatory feedback, minimize the changes in activities and milestone payments under this Work Order.

The Work Order may be executed in one or more counterparts by the parties by signature of a person having authority to bind the party, which may be by facsimile signature, each of which when executed and delivered, by facsimile transmission or by mail delivery, will be an original and all of which will constitute but one and the same Work Order.

IN WITNESS WHEREOF, the parties hereto have caused this Work Order to be executed by their duly authorized officers the day and year written below:

Ventana Medical Systems, Inc.

By: /s/ Doug Ward

Name: Doug Ward

Title: VP & LCL, CDx

Date: March 16, 2016

Blueprint Medicines Corporation

By: /s/ Anthony Boral

Name: Anthony Boral

Title: Chief Medical Officer

Date: March 22, 2016

*****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**

Execution Version

Collaboration and License Agreement

This Agreement is entered into with effect as of the Effective Date (as defined below)

by and between

F. Hoffmann-La Roche Ltd

with an office and place of business at Grenzacherstrasse 124, 4070 Basel, Switzerland ("**Roche Basel**")

and

Hoffmann-La Roche Inc.

with an office and place of business at 150 Clove Road, Suite 8, Little Falls, New Jersey 07424, U.S.A. ("**Roche US**"; Roche Basel and Roche US together referred to as "**Roche**")

on the one hand

and

Blueprint Medicines Corporation

with an office and place of business at 38 Sidney Street, Suite 200, Cambridge, Massachusetts 02139, U.S.A. ("**BPM**")

on the other hand.

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WHEREAS, BPM owns or controls a proprietary uniquely annotated small molecule library addressing the entire kinome, including well-characterized library sub-sets suited for screening purposes, and provides significant chemistry and preclinical development expertise and experience in bringing hits from this library through lead optimization and GLP Tox Studies to Phase I Study in an efficient manner; and

WHEREAS, BPM has proprietary bioinformatics expertise including algorithms for mining of genomic information which supports elucidation of new targets or provides differentiated insights on biology of known targets; and

WHEREAS, Roche has expertise in the research, development, manufacture and commercialization of pharmaceutical products, and owns or controls […***…]; and

WHEREAS, Roche is a leader in the field of cancer immunotherapy clinical development including combination trials; and

WHEREAS, Roche and BPM wish to combine their respective expertise to develop products against three (3) selected targets ([…***…], […***…] and […***…]) as well as up to an additional two (2) targets selected from a collaboratively shared screening and target validation effort based on BPM Technology (defined below) and Roche's proprietary assays and know-how in cancer immunotherapy; and

WHEREAS, BPM is willing to grant to Roche rights to opt-into each of these five (5) programs at a defined point in time and to use BPM's intellectual property rights to Exploit Collaboration Compounds, Products and Licensed Products in the Territory for use in the Field (as such terms are respectively defined below), as contemplated herein; and

WHEREAS, Roche and BPM agree that BPM will perform certain activities to Exploit the Collaboration Compounds, Products and Licensed Products for use in the Field (as such terms are respectively defined below).

NOW, THEREFORE, in consideration of the mutual covenants and promises contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, intending to be legally bound, do hereby agree as follows:

1. Definitions

As used in this Agreement, the following terms, whether used in the singular or plural, shall have the following meanings:

1.1 Affiliate

The term "Affiliate" shall mean, with respect to a Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with such Person. As used in this definition of "Affiliate," the term "control" shall mean the direct or indirect ownership of more than fifty percent

(>50%) of the stock having the right to vote for directors thereof or the ability to otherwise control the management of such Person whether through the ownership of voting securities, by contract, resolution, regulation or otherwise. Anything to the contrary in this paragraph notwithstanding, neither […***…] and/or its subsidiaries (if any) nor […***…] and/or its subsidiaries (if any) shall be deemed as Affiliates of Roche unless Roche provides written notice to BPM of its desire to include […***…] and/or their respective subsidiaries (as applicable) as Affiliate(s) of Roche.

1.2 Agreement
The term "Agreement" shall mean this document including any and all appendices and amendments to it as may be added and/or amended from time to time in accordance with the provisions of this Agreement.

1.3 Agreement Term
The term "Agreement Term" shall mean the period of time commencing on the Effective Date and, unless this Agreement is terminated sooner as provided in Article 21, expiring on the date when no royalty or other payment obligations under this Agreement are or will become due.

1.4 Allocable Overhead
The term "Allocable Overhead" shall mean costs incurred by a Party or for its account which are attributable to a Party's supervisory or support services / functions, occupancy costs, corporate bonus (to the extent not charged directly to department), and its payroll, information systems, human relations or purchasing functions and which are allocated to company departments based on space occupied or headcount or other activity-based method. Allocable Overhead shall not include any costs attributed to a Party's direct personnel costs or Out of Pocket Costs or to general corporate activities including, by way of example, executive management, investor relations, business development, legal affairs and finance.

1.5 Animal POC
The term "Animal POC" shall mean the demonstration of efficacy of Collaboration Compounds in at least one animal model performed by or on behalf of Roche during Lead Optimization.

1.6 Applicable Law
The term "Applicable Law" shall mean any law, statute, ordinance, code, rule or regulation that has been enacted by a government authority (including without limitation, any Regulatory Authority) and is in force as of the Effective Date or comes into force during the Agreement Term, in each case to the extent that the same is applicable to the Parties' respective rights or the performance by the Parties of their respective obligations under this Agreement.

1.7 Backup Compound
The term "Backup Compound" shall mean, on a Collaboration Target-by-Collaboration Target basis, any Collaboration Compound made under the Research Plan for a given Collaboration Target that is intended to replace a more advanced Collaboration Compound in the event development of such more advanced Collaboration Compound is terminated, […***…].

1.8 BPM Group
The term "BPM Group" shall mean collectively BPM, its Affiliates and its Sublicensees.

1.9 BPM IP
The term "BPM IP" shall mean (a) Know-How and Patent Rights that BPM and its Affiliates Control (i) as of the Effective Date, and/or (ii) during the Agreement Term to the extent used by BPM or its Affiliates to perform activities under this Agreement (but excluding Supplemental Studies

unless Roche opts-in pursuant to Section 7.2), (b) BPM's interest in any Joint IP, and (c) BPM Sole IP, and in each case ((a) through (c)) that are necessary or useful for the Exploitation of Collaboration Compounds, Products or Licensed Products, but excluding BPM Technology, Collaboration Compound IP and Other Compound IP. The foregoing Patent Rights in the BPM IP shall be listed in Appendix 1.9 of this Agreement and updated from time to time (but failure to list same will not exclude them as BPM IP). For clarity, after any Change of Control of BPM, no Know-How or Patent Rights of any BPM Affiliate that becomes a BPM Affiliate after the Change of Control of BPM shall become "BPM IP" hereunder unless such Know-How or Patent Rights are intentionally used by BPM in BPM's performance of research, development or commercialization activities under this Agreement.

1.10 BPM Net Sales

The term "BPM Net Sales" shall mean the net sales on behalf of BPM and any of its Affiliates or Sublicensees for any Licensed Product sold to Third Parties (other than Sublicensees) in bona fide, arms-length transactions, as determined in accordance with GAAP, less the following deductions: (a) normal trade and cash discounts, (b) amounts repaid or credited by reasons of defects, rejections, recalls or returns, (c) rebates and chargebacks to customers and Third Parties (including Medicare, Medicaid, Managed Healthcare and similar types of rebates), (d) any amounts recorded in gross revenue associated with goods provided to customers for free, (e) amounts provided or credited to customers through coupons and other discount programs, (f) delayed ship order credits, discounts or payments related to the impact of price increases between purchase and shipping dates, (g) fee for service payments to customers for any non-separable services (including compensation for maintaining agreed inventory levels and providing information), (h) a fixed deduction of […***…] for direct expenses related to the sales of Licensed Product(s) for distribution and warehousing expenses and uncollectible amounts on previously sold Licensed Products, (i) taxes and any other governmental charges or levies imposed upon or measured by the Exploitation of a Licensed Product (excluding income or franchise taxes) as well as government mandated fees and taxes and other government charges, including any fees, taxes or other charges specifically attributable to a Licensed Product that become due in connection with any healthcare reform, change in government pricing or discounting schemes, or other action of a government or regulatory body, and (j) other reductions or specifically identifiable amounts deducted for reasons similar to those listed above in accordance with GAAP. For clarity, no deduction may be taken more than once in the calculation of BPM Net Sales.

In the case of any sale or other disposal of a Licensed Product between or among BPM and any of its Affiliates or Sublicensees, for resale, BPM Net Sales shall be calculated only on the value charged or invoiced on the first arm's-length sale thereafter to a Third Party (other than a Sublicensee). In the case of any sale that is not invoiced or is delivered before invoice, BPM Net Sales shall be calculated at the time all the revenue recognition criteria under GAAP are met. Notwithstanding the foregoing, the following will not be included in BPM Net Sales: (i) sales between or among BPM and its Affiliates or Sublicensees (but BPM Net Sales will include sales to the first Third Party (other than a Sublicensee) by BPM or its Affiliates or Sublicensees); (ii) samples of Licensed Product used to promote additional BPM Net Sales, in amounts consistent with normal business practices of BPM or its Affiliates or Sublicensees; and (iii) disposal or use of Licensed Products in Clinical Studies or under compassionate use, patient assistance, named patient use, or test marketing programs or non-registrational studies or other similar programs or studies where the Licensed Product is supplied without charge or at the actual manufacturing cost thereof (without allocation of indirect costs or any mark-up).

With respect to a Combination Product, BPM Net Sales of such Combination Product eligible for royalties shall be adjusted to subtract the Relative Commercial Value of any Other Component of such Combination Product in accordance with Section 12.9.4.

To the extent that BPM or its Affiliates or Sublicensees receives consideration other than or in addition to cash upon the sale of a Licensed Product, or the performance of any services (including preliminary treatments or follow-up treatments) related to such Licensed Product, BPM Net Sales will include the fair market value of such additional consideration.

1.11 BPM Patent Rights
The term "BPM Patent Rights" shall mean all Patent Rights contained in the BPM IP.

1.12 BPM Sole IP
The term "BPM Sole IP" shall mean all Patent Rights and Know-How arising from a BPM Invention.

1.13 BPM Technology
The term "BPM Technology" shall mean BPM's proprietary library (in the form as of the Effective Date or during the Research and Development Term) and related Patent Rights and Know-How against the kinome and its annotation.

1.14 BPM Territory
The term "BPM Territory" shall mean, with respect to Program 2 and Program 4, the US.

1.15 Business Day
The term "Business Day" shall mean 9:00am to 5:00pm local time on a day other than a Saturday, Sunday or bank or other public or federal holiday in Switzerland or Massachusetts, US.

1.16 Calendar Quarter
The term "Calendar Quarter" shall mean each period of three (3) consecutive calendar months, ending March 31, June 30, September 30, and December 31.

1.17 Calendar Year
The term "Calendar Year" shall mean the period of time beginning on January 1 and ending December 31, except for the first year which shall begin on the Effective Date and end on December 31.

1.18 CCS Criteria
The term "CCS Criteria" shall mean the criteria set forth in Appendix 1.18 of this Agreement that constitute clinical candidate selection, unless such criteria are modified by the JRC.

1.19 Change of Control
The term "Change of Control" shall mean, with respect to a Party: (a) the acquisition (in a transaction or series of related transactions) by any Third Party, together with its Affiliates, of beneficial ownership of fifty percent (50%) or more of the then outstanding securities or combined voting power of such Party, other than acquisitions by employee benefit plans sponsored or maintained by such Party; (b) the consummation of a business combination (including a merger or consolidation) involving such Party with a Third Party, unless, following such business combination, the stockholders of such Party immediately prior to such business combination beneficially own directly or indirectly more than fifty percent (>50%) of the then outstanding securities or combined voting power of the surviving entity or the parent of the surviving entity immediately after such business combination; or (c) the sale or other transfer to a Third Party of

all or substantially all of such Party's and its Affiliates' assets or business relating to the subject matter of the Agreement.

1.20 Change of Control Group
The term "Change of Control Group" shall mean with respect to a Party, the person or entity, or group of persons or entities, that is the acquirer of, or a successor to, a Party in connection with a Change of Control, together with affiliates of such persons or entities that are not Affiliates of such Party immediately prior to the completion of such Change of Control of such Party.

1.21 Clinical Study
The term "Clinical Study" shall mean any Phase I Study, Phase II Study, Phase III Study, Pivotal Study, Post-Marketing Study, Supplemental Study or other study in humans to obtain information regarding the product, including information relating to the safety, tolerability, pharmacological activity, pharmacokinetics, dose ranging or efficacy of the product, as applicable.

1.22 CLS Achieved
The term "CLS Achieved" shall mean that a Product contains a Collaboration Compound meeting the CLS Criteria, unless such criteria are modified by the JRC.

1.23 CLS Criteria
The term "CLS Criteria" shall mean the criteria set forth in Appendix 1.23 of this Agreement that constitute clinical lead selection, unless such criteria are modified by the JRC.

1.24 Collaboration Compound
The term "Collaboration Compound" shall mean any compound made under the Research Plan for a given Collaboration Target that satisfies the Compound Criteria. A Collaboration Compound includes all salts, polymorphs, metabolites, prodrugs, isomers, enantiomers and stereoisomers of such Collaboration Compound, in each case that satisfies the Compound Criteria.

1.25 Collaboration Compound IP
The term "Collaboration Compound IP" shall mean all Patent Rights and Know-How Covering Collaboration Compounds and that is generated by either Party individually or both Parties jointly pursuant to a Research Plan or Phase I Plan.

1.26 Collaboration Target
The term "Collaboration Target" shall mean (i) each of […***…] (Uniprot […***…]), […***…] ([…***…] is Uniprot […***…] and […***…] is Uniprot […***…]) and […***…] (Uniprot […***…]) and (ii) each of the Targets selected from the Pool to pursue in Part 2 or mutually selected by the Parties in Part 2 […***…], for each of (i) and (ii) subject to exchange of such Target pursuant to Sections 4.1.5 or 4.1.6, as applicable. For clarity, the Collaboration Targets shall not include any Excluded Targets, Leftover Targets or Terminated Targets.

1.27 Combination Product
The term "Combination Product" shall mean

(a) a single pharmaceutical formulation (whether co-formulated or administered together via the same administration route) containing as its active ingredients both a Collaboration Compound and one or more other therapeutically or prophylactically active ingredients (each an "**Other Component**"), or

(b) a combination therapy comprised of a Collaboration Compound and one or more Other Component(s), whether priced and sold in a single package containing such multiple products, packaged separately but sold together for a single price, or sold under separate price points but labeled for use together.

in each case, including all dosage forms, formulations, presentations, and package configurations. Drug delivery vehicles, adjuvants and excipients will not be deemed to be "active ingredients", except in the case where such delivery vehicle, adjuvant or excipient is recognized by the FDA as an active ingredient in accordance with 21 C.F.R. 210.3(b)(7). All references to Products or Licensed Products in this Agreement shall be deemed to include Combination Products.

1.28 […*…]**

1.29 Commercially Reasonable Efforts

The term "Commercially Reasonable Efforts" shall mean, with respect to the performance of an obligation under this Agreement, such level of efforts and resources consistent with the efforts Roche or BPM, as applicable, devotes to a similar obligation at the same stage of research, development or commercialization, as applicable, for its own internally developed pharmaceutical products in a similar area with similar market potential, at a similar stage of their product life, taking into account the existence of other competitive products in the market place or under development, the proprietary position of the product, the regulatory structure involved, the anticipated profitability of the product and other relevant factors. It is understood that such level of efforts or resources may change from time to time based upon changing scientific, business and marketing and return on investment considerations; provided, however, that the payments required to be made by a Party to the other Party pursuant to this Agreement will not be taken into account.

However, Roche (and its Affiliates) does not always seek to market its own products in every country or seek to obtain Regulatory Approval in every country or for every potential Indication. As a result, the exercise of diligence by Roche under this standard is to be determined by judging Roche's efforts in (i) the Major Countries, taken as a whole, and (ii) the Territory excluding the Major Countries, taken as a whole.

1.30 Companion Diagnostic

The term "Companion Diagnostic" shall mean any product or service that:

(a) identifies a person having a disease or condition, or a molecular genotype or phenotype that predisposes a person to such disease or condition, for which a Product or Licensed Product could be used to treat and/or prevent such disease or condition;

(b) defines the prognosis or monitors the progress of a disease or condition in a person for which a Product or Licensed Product could be used to treat and/or prevent such disease or condition;

(c) is used to select a therapeutic or prophylactic regimen, wherein at least one (1) potential therapeutic or prophylactic regimen involves a Product or Licensed Product, and where the selected regimen is determined, based on the use of such product or service, to likely be effective and/or to be safe for a person; and/or

(d) is used to confirm a Product or Licensed Product's biological activity and/or to optimize dosing or the scheduled administration of a Product or Licensed Product.

1.31 Composition of Matter Claim

The term "Composition of Matter Claim" shall mean, for a given Licensed Product in a given country of the Territory, a Valid Claim of the Collaboration Compound IP or BPM IP or any Patent Rights owned or in-licensed by Roche or its Affiliates (only in the case of sales of Licensed Product

in the BPM Territory for Program 2 and Program 4) that Covers the composition of matter of the Collaboration Compound that is included in such Licensed Product, in whole or as a component thereof.

1.32 Compound Criteria
The term "Compound Criteria" shall mean the criteria, on a Collaboration Target-by-Collaboration Target basis, that are (i) determined by the JRC, (ii) approved by the Parties, and (iii) documented as part of the applicable Research Plan.

1.33 Compulsory Sublicense Compensation
The term "Compulsory Sublicense Compensation" shall mean, for a given country or region, the compensation paid to the Roche Group or the BPM Group (as applicable) by a Third Party (a "**Compulsory Sublicensee**") under a license or sublicense of any applicable Patent Rights granted to the Compulsory Sublicensee (the "**Compulsory Sublicense**") through the order, decree or grant of a governmental authority having competent jurisdiction in such country or region, authorizing such Third Party to manufacture, use, sell, offer for sale, import or export a Licensed Product in such country or region.

1.34 Confidential Information
The term "Confidential Information" shall mean any and all information, data or know-how (including Know-How), whether technical or non-technical, oral or written, that is disclosed by one Party or its Affiliates ("**Disclosing Party**") to the other Party or its Affiliates ("**Receiving Party**"). Confidential Information shall not include any information, data or know-how that:

(i) was generally available to the public at the time of disclosure, or becomes available to the public after disclosure by the Disclosing Party other than through fault (whether by action or inaction) of the Receiving Party or its Affiliates,
(ii) can be evidenced by written records to have been already known to the Receiving Party or its Affiliates prior to its receipt from the Disclosing Party,
(iii) is obtained by the Receiving Party at any time lawfully from a Third Party under circumstances permitting its use or disclosure,
(iv) is developed independently by the Receiving Party or its Affiliates as evidenced by written records other than through knowledge of Confidential Information, or
(v) is approved in writing by the Disclosing Party for release by the Receiving Party.

The terms of this Agreement shall be considered Confidential Information of the Parties.

1.35 Continuation Election Notice
The term "Continuation Election Notice" shall mean the notice BPM provides to Roche under Section 21.3.1 describing (i) BPM's *bona fide* intention(s) to continue ongoing development and commercialization of Licensed Product(s) and (ii) BPM's request for Roche's continuation of activities during the termination period or transfer of the data, material and information relating to the Licensed Product(s) in accordance with Section 21.3.1.

1.36 Control
The term "Control" shall mean (as an adjective or as a verb including conjugations and variations such as "Controls" "Controlled" or "Controlling") (a) with respect to Patent Rights and/or Know-How, the possession by a Party of the ability to grant a license or sublicense of such Patent Rights and/or Know-How without violating the terms of any agreement or arrangement between such Party and any other party and (b) with respect to proprietary materials, the possession by a Party of the ability to supply such proprietary materials to the other Party as provided herein without violating the terms of any agreement or arrangement between such Party and any other party or

without being obligated to pay any royalties or other consideration therefor, except for that which BPM or its Affiliates in-licenses and under which Roche elects to take a sublicense and agrees to make the associated payments pursuant to Section 2.4 which shall be considered under the Control of BPM or its Affiliates.

1.37 Cover

The term "Cover" shall mean (as an adjective or as a verb including conjugations and variations such as "Covered," "Coverage" or "Covering") that the Exploitation of a given compound, formulation or product would infringe a Valid Claim in the absence of a license under or ownership in the Patent Rights to which such Valid Claim pertains. The determination of whether a compound, formulation, process or product is Covered by a particular Valid Claim shall be made on a country-by-country basis.

1.38 CRO

The term "CRO" shall mean a contract research organization or a contract manufacturing organization, a list of approved CROs is attached as Appendix 1.38, as such appendix may be amended or restated from time to time in accordance with the terms of this Agreement.

1.39 Development Costs

The term "Development Costs" shall mean as to each Collaboration Target in the Field in the Territory, those (i) costs and expenses directly incurred (including personnel costs and Allocable Overhead associated with employees and contractors of a Party) with the performance of any clinical development activities (other than Phase I Studies) for Collaboration Compounds, Products or Licensed Products for such Collaboration Target, (ii) fees charged by Third Party service providers and other Out of Pocket Costs reasonably incurred in connection with the performance of any Clinical Study (other than Phase I Studies) with respect to Collaboration Compounds, Products, Licensed Products, or Companion Diagnostics for such Collaboration Target, and (iii) all costs associated with research or development of Companion Diagnostics, in each case, that are recorded as an expense in accordance with IFRS or GAAP as applicable and consistently applied. In addition, Development Costs shall include (A) the cost of additional studies on the toxicological, pharmacokinetic, metabolic or clinical aspects of such Product or Licensed Product conducted by individual investigators or consultants and (B) expenses for data management, statistical designs and studies, document preparation, and other expenses associated with the clinical testing program for additional studies. For clarity, Development Costs for each Product or Licensed Product shall include (a) manufacturing and supply costs and expenses associated with such Product or Licensed Product, and (b) costs related to preparing the initial regulatory dossier for such Product or Licensed Product. All manufacturing and supply costs and expenses for Roche Clinical Compounds and Roche Marketed Products shall be at Roche's sole expense.

For clarity, Development Costs shall exclude (A) capital expenditures, (B) Phase I Development Costs, and (C) for Program 2 and Program 4, any costs and expenses associated with Supplemental Studies (other than Supplemental Studies that a Party opts-in to pursuant to Section 7.2).

1.40 Development Plan

The term "Development Plan" shall mean, for each Program, the plan for the clinical development of Licensed Products for such Program in the Field in the Territory, which plan shall include a budget for each of Program 2 and Program 4 and the planned Clinical Studies for the […***…] Label Pursuits for each of Program 2 and Program 4.

1.41 Effective Date
The term “Effective Date” shall mean March 14, 2016.

1.42 EU
The term “EU” shall mean the European Union and all its then-current member countries.

1.43 Excluded Field
The term “Excluded Field” shall mean […***…].

1.44 Excluded Targets
The term “Excluded Targets” shall mean the Targets listed in Appendix 1.44 of this Agreement.

1.45 Expert
The term “Expert” shall mean a person with no less than ten (10) years of pharmaceutical industry experience and expertise having occupied at least one senior position within a large pharmaceutical company relating to drug discovery, product development (in the case of Section 2.5.2) or commercialization and/or licensing (in the case of Section 12.9.4) but excluding any current or former employee or consultant of either Party or its Affiliates. Such person shall be fluent in the English language.

1.46 Exploit
The term “Exploit” shall mean (including conjugations and variations such as “Exploiting” or “Exploitation”) to research, have researched, develop, have developed, register, have registered, use, have used, make, have made, import, have imported, export, have exported, market, have marketed, distribute, have distributed, sell, have sold and offer for sale and have offered for sale, including all research, development, manufacturing and commercialization activities.

1.47 FBMC
The term “FBMC” shall mean the sum of (a) the cost of goods produced, determined in accordance with IFRS or GAAP guidelines as consistently applied by Roche or BPM in the ordinary course of its business, including direct labor, material, payments to Third Parties for costs incurred and product testing costs of Collaboration Compounds, Products or Licensed Products, as well as Allocable Overhead, and (b) any other Out of Pocket Costs borne by Roche or BPM for the packaging, transport, customs clearance, and storage of Collaboration Compounds, Products or Licensed Products (e.g., containers, freight, duties, insurance and warehousing).

1.48 FDA
The term “FDA” shall mean the Food and Drug Administration of the United States of America.

1.49 FDCA
The term “FDCA” shall mean the Food, Drug and Cosmetics Act.

1.50 Field
The term “Field” shall mean any use other than the Excluded Field.

1.51 Filing
The term “Filing” shall mean the filing of an application by the FDA as defined in the FDCA and applicable regulations, or the equivalent application to the equivalent agency in any other country or group of countries, the official approval of which is required before any lawful commercial sale or marketing of Licensed Products.

1.52 First Commercial Sale
The term "First Commercial Sale" shall mean, on a country-by-country and Licensed Product-by-Licensed Product basis, the first commercial sale of a Licensed Product to a Third Party by the Roche Group or by the BPM Group, as applicable, in such country following the receipt of any Regulatory Approval required for the sale of such Licensed Product in such country, or if no such Regulatory Approval is required, the date of the first commercial sale of a Licensed Product in such country to a Third Party by (i) the Roche Group in such country or (ii) the BPM Group in the BPM Territory, as applicable.

1.53 GAAP
The term "GAAP" shall mean US Generally Acceptable Accounting Principles.

1.54 Generic Product
The term "Generic Product" shall mean, with respect to a particular Licensed Product and on a country-by-country basis, a generic pharmaceutical product that is marketed for sale by a Third Party (not licensed, supplied or otherwise permitted by the Roche Group or the BPM Group) and that: (i) (a) contains the same or substantially the same active ingredient as the Collaboration Compound in such Licensed Product; and (b) is approved for use in such country by a Regulatory Authority through an Abbreviated New Drug Application as defined in the FDCA, and the regulations promulgated thereunder, pursuant to Article 10.1 of Directive 2001/83/EC of the European Parliament and Council of 6 November 2001, or any enabling legislation thereof, or pursuant to any similar abbreviated route of approval in such country; or (ii) (a) contains the same or substantially the same active ingredient as the Collaboration Compound in such Licensed Product; and (b) is approved for use in such country by a Regulatory Authority through a regulatory pathway referencing clinical data first submitted by the Roche Group or the BPM Group for obtaining Regulatory Approval for such Licensed Product.

1.55 Handle

The term "Handle" shall mean preparing, filing, prosecuting (including interference and opposition proceedings) and maintaining (including interferences, reissue, re-examination, pre- and post-grant reviews, inter-parties reviews, derivation proceedings and opposition proceedings, patent term adjustment and extensions (including those arising from Regulatory Approvals), supplementary protection certificates and other similar proceedings), but not with respect to any infringement or other enforcement activities.

1.56 IFRS
The term "IFRS" shall mean International Financial Reporting Standards.

1.57 IND
The term "IND" shall mean an application as defined in the FDCA and applicable regulations promulgated by the FDA, or the equivalent application to the equivalent agency in any other country or group of countries, the filing of which is necessary to commence clinical testing of the Products and/or Licensed Products in humans.

1.58 Indication
The term "Indication" shall mean a disease (i) for which the Licensed Product is indicated for treatment and (ii) that is described in the Licensed Product label as required by the Regulatory Approval granted by the applicable Regulatory Authority. […***…].

1.59 Initiation
The term "Initiation" shall mean the date that a human is first dosed with the Product or Licensed Product, as applicable, in a Clinical Study approved by the respective Regulatory Authority.

1.60 Initiation of GLP Tox Study
The term "Initiation of GLP Tox Study" shall mean the date of the approval by the JRC of the final protocol for a study of the relationship between dose and its effects on the exposed animal, where (i) the study is to be conducted in accordance with Good Laboratory Practice standards and (ii) the study has been designed in expectation that the results may support establishment of a safe starting dose of the Product in human clinical studies (a "**GLP Tox Study**").

1.61 Insolvency Event
The term "Insolvency Event" shall mean circumstances under which a Party (i) has a receiver or similar officer appointed over all or a material part of its assets or undertaking; (ii) passes a resolution for winding-up (other than a winding-up for the purpose of, or in connection with, any solvent amalgamation or reconstruction) or a court makes an order to that effect or a court makes an order for administration (or any equivalent order in any jurisdiction); (iii) enters into any composition or arrangement with its creditors (other than relating to a solvent restructuring); (iv) ceases to carry on business; or (v) is unable to pay its debts as they become due in the ordinary course of business.

1.62 Invention
The term "Invention" shall mean an invention that is conceived in connection with any activity carried out pursuant to this Agreement. Under this definition, but subject to Section 16.1, an Invention may be made by employees, consultants or contractors of BPM solely or jointly with a Third Party (a "**BPM Invention**"), by employees, consultants or contractors of the Roche Group solely or jointly with a Third Party (a "**Roche Invention**"), or jointly by employees, consultants or contractors of BPM and employees, consultants or contractors of the Roche Group with or without a Third Party (a "**Joint Invention**").

1.63 JDC
The term "JDC" shall mean the joint development committee that oversees all activities pursuant to the Phase I Plans and all clinical development of Licensed Products by the Parties after exercise of an Option Right, and is described in Section 8.2.

1.64 Joint IP
The term "Joint IP" shall mean all Joint Patent Rights and Joint Know-How.

1.65 Joint Know-How
The term "Joint Know-How" shall mean all Know-How that is conceived jointly by the Parties or their Affiliates or their Sublicensees in connection with any activity carried out pursuant to this Agreement. For clarity, Joint Know-How shall include all Know-How within the Biomarker IP.

1.66 Joint Patent Rights
The term "Joint Patent Rights" shall mean all Patent Rights arising from a Joint Invention. For clarity, Joint Patent Rights shall include all Patent Rights within the Biomarker IP.

1.67 JOT
The term "JOT" shall mean a joint operating team if established by the JRC under Section 8.4 or the JDC under Section 8.5.

1.68 JRC
The term "JRC" shall mean the joint research committee that oversees all activities under the Research Plans, and is described in Section 8.1.

1.69 Know-How
The term "Know-How" shall mean data, knowledge and information, including materials, samples, chemical manufacturing data, toxicological data, pharmacological data, preclinical data, assays, platforms, formulations, specifications, quality control testing data, that are necessary or useful for the discovery, manufacture, development or commercialization of Products and/or Licensed Products.

1.70 Lead Nomination
The term "Lead Nomination" shall mean the preclinical development activities performed for each Collaboration Target at the beginning of Part 1 and for Collaboration Targets selected in Part 2 after Target Validation with the goal to identify Collaboration Compounds which satisfy the Lead Series Identified Criteria.

1.71 Lead Optimization
The term "Lead Optimization" shall mean the preclinical development activities performed for each Collaboration Target following Lead Nomination, with the goal to identify Collaboration Compounds suitable for GLP Tox Studies and meeting CCS Criteria.

1.72 Lead Series Identified Criteria
The term "Lead Series Identified Criteria" shall mean the lead series identified criteria set forth in Appendix 1.72 of this Agreement, unless such criteria are modified by the JRC.

1.73 Leftover Targets
The term "Leftover Targets" shall mean those Collaboration Targets for which an Option Right has not been exercised by Roche, including those (i) in the Pool after the JRC's right to replace Collaboration Targets in the Pool has ended pursuant to Section 4.1.6, and/or (ii) that have been replaced with a new Collaboration Target, or for which further preclinical development activities are not pursued under Part 2.

1.74 Library Compound
The term "Library Compound" shall mean any compound included in BPM Technology but excluding any Other Compound or Collaboration Compound.

1.75 Licensed Product
The term "Licensed Product" shall mean a Product to which Roche has exercised its Option Right to the corresponding Collaboration Target. For clarity, a Reversion Product shall not be considered a Licensed Product.

1.76 Major Countries
The term "Major Countries" shall mean […***…].

1.77 […*…]**

1.78 MTD
The term "MTD" shall mean, for each Collaboration Target, the dose and schedule that will be used for the Product […***…] in the expansion part of the first Phase I Study or in the first Phase II Study, if no expansion is planned for the first Phase I Study. The MTD may be the maximum

tolerated dose, as defined in the Phase I Study protocol for each Collaboration Target, or it may be a lower dose. The MTD for each Collaboration Target will be confirmed by the JDC.

1.79 NDA
The term "NDA" shall mean a new drug application, including all necessary documents, data, and other information concerning a Licensed Product, required for Regulatory Approval of the Licensed Product as a pharmaceutical product by the FDA or an equivalent application to the equivalent agency in any other country or group of countries (*e.g.* the marketing authorization application (MAA) in the EU).

1.80 Net Sales
The term "Net Sales" shall mean, for a Licensed Product in a particular period, the amount calculated by subtracting from the Sales of such Licensed Product for such period: (i) a lump sum deduction of […***…] of Sales in lieu of those deductions that are not accounted for on a Licensed Product-by-Licensed Product basis (*e.g.*, freight, postage charges, transportation insurance, packing materials for dispatch of goods, custom duties); (ii) uncollectible amounts accrued during such period based on a proportional allocation of the total bad debts accrued during such period and not already taken as a gross-to-net deduction in accordance with the then currently used IFRS in the calculation of Sales of such Licensed Product for such period; (iii) credit card charges (including processing fees) accrued during such period on such Sales and not already taken as a gross-to-net deduction in accordance with the then currently used IFRS in the calculation of Sales of such Licensed Product for such period; and (iv) government mandated fees and taxes and other government charges accrued during such period not already taken as a gross-to-net deduction in accordance with the then currently used IFRS in the calculation of Sales of such Licensed Product for such period, including, for example, any fees, taxes or other charges that become due in connection with any healthcare reform, change in government pricing or discounting schemes, or other action of a government or regulatory body. For clarity, no deductions taken in calculating Sales under Section 1.119 may be taken a second time in calculating Net Sales.

With respect to a Combination Product, Net Sales of such Combination Product eligible for royalties shall be adjusted to subtract the Relative Commercial Value of any Other Component of such Combination Product in accordance with Section 12.9.4.

To the extent that Roche or its Affiliates or Sublicensees receives consideration other than or in addition to cash upon the Sale of a Licensed Product, or the performance of any services (including preliminary treatments or follow-up treatments) related to such Licensed Product, Net Sales will include the fair market value of such additional consideration.

1.81 Option Data Criteria
The term "Option Data Criteria" shall mean, for each Collaboration Target, the categories of information (including the criteria within such categories) for a Product in accordance with the Phase I Plan with respect to such Collaboration Target, which categories are set forth in Appendix 1.81, and the criteria within such categories will be determined on a Collaboration Target-by-Collaboration Target basis and finalized by the JDC prior to the filing of the first IND for such Collaboration Target.

1.82 Option Data Package
The term "Option Data Package" shall mean, for each Collaboration Target, (i) a document setting forth the available data resulting from the Phase I Studies conducted by BPM for such Collaboration Target, including the applicable Option Data Criteria, (ii) the availability of the data

for such Phase I Studies in an organized and clean format in the Clinical Study database for such Collaboration Target through the Option Data Package Trigger for such Collaboration Target, and (iii) if applicable, the availability of the data of any Phase I Studies conducted by Roche in an organized and clean format for a […***…] through the Option Data Package Trigger for such […***…]. For clarity, "**BPM's Portion**" of the Option Data Package shall mean the items set forth in clauses (i) and (ii) of this Section 1.82.

1.83 Option Data Package Trigger
The term "Option Data Package Trigger" shall mean, for each Collaboration Target, the earlier of (a) the date the JDC has determined that the Option Data Criteria have been met, or (b) the cut-off date determined by the JDC pursuant to Section 3.1.3.

1.84 Option Exercise Date
The term "Option Exercise Date" shall mean, on a Collaboration Target-by-Collaboration Target basis, the date on which an Option Exercise Notice delivered by Roche to BPM for such Collaboration Target pursuant to Section 3.1.3 takes effect.

1.85 Option Exercise Notice
The term "Option Exercise Notice" shall mean the written notice Roche delivers to BPM to exercise its Option Right with respect to a Collaboration Target.

1.86 Option Period
The term "Option Period" shall mean, for each Collaboration Target, the period beginning the date the MTD for the first Product for such Collaboration Target is designated by the JDC and ending upon the earliest of (i) the date that such Collaboration Target becomes a Leftover Target, (ii) […***…] after Roche's receipt of the Option Data Package for such Collaboration Target, (iii) the date such Collaboration Target becomes a Terminated Target, (iv) the date upon which a Product (including Backup Compounds) for such Collaboration Target is no longer in GLP Tox Studies, in Phase I Studies, or progressing from GLP Tox Studies to Phase I Studies, or (v) […***…] after achievement of Lead Series Identified Criteria has been confirmed by the JRC for such Collaboration Target if Initiation of the GLP Tox Study has not been achieved for such Collaboration Target prior to such date.

1.87 Option Right
The term "Option Right" shall mean, with respect to a Collaboration Target, Roche's right to obtain an exclusive (subject to BPM's retained rights if applicable) commercial license with respect to that Collaboration Target in accordance with Section 3.1.

1.88 Other Compound
The term "Other Compound" shall mean any compound made under the Research Plan for a given Collaboration Target that does not satisfy the Compound Criteria as determined by the JRC and is not a Library Compound as of the Effective Date. An Other Compound includes all salts, polymorphs, metabolites, prodrugs, isomers, enantiomers and stereoisomers of such compound, in each case that do not satisfy the Compound Criteria and are not a Library Compound as of the Effective Date.

1.89 Out of Pocket Costs
The term "Out of Pocket Costs" shall mean, with respect to certain activities hereunder direct expenses paid or payable by either Party or its Affiliates to Third Parties and specifically identifiable and incurred to conduct such activities for Collaboration Compounds, Products, Licensed Products or Companion Diagnostics, as applicable, including payments to contract

personnel (including contractors, consultants, CROs and subcontractors) in each case pursuant to the Phase I Plans or Development Plans.

1.90 Party
The term "Party" shall mean BPM or Roche, as the case may be, and "Parties" shall mean BPM and Roche collectively.

1.91 Part 1
The term "Part 1" shall mean the activities under the Research Plan and Phase I Plan for the Collaboration Targets […***…], […***…], and […***…].

1.92 Part 2
The term "Part 2" shall mean the activities under Screening, Target Validation and the Research Plans and Phase I Plans for the Targets selected for activities in Part 2 that become Collaboration Targets.

1.93 Patent Rights
The term "Patent Rights" shall mean all rights under any patent or patent application, in any country of the Territory, including any patents issuing on such patent application, and further including any substitution, extension or supplementary protection certificate, reissue, reexamination, renewal, division, continuation or continuation-in-part of any of the foregoing.

1.94 Person
The term "Person" shall mean any natural person, corporation, unincorporated organization, partnership, association, sole proprietorship, joint stock company, joint venture, limited liability company, trust or government, or any other similar entity.

1.95 Pharmacovigilance Agreement
The term "Pharmacovigilance Agreement" shall mean an agreement entered into by the Parties to set forth the protocols and procedures for reporting adverse events and complying with reporting requirements set forth by Regulatory Authorities.

1.96 Phase I Development Costs
The term "Phase I Development Costs" shall mean, with respect to each Phase I Plan, and subject to the cap in Section 5.1.3, those (i) costs and expenses directly incurred (including personnel costs and Allocable Overhead associated with employees and contractors of a Party) with the performance of any Phase I Studies for Collaboration Compounds or Products for such Collaboration Target, (ii) costs associated with research or development of Companion Diagnostics, and (iii) fees charged by Third Party service providers and other Out-of-Pocket Costs reasonably incurred in connection with the performance of any Phase I Study with respect to Collaboration Compounds or Products for such Collaboration Target, in each case, in accordance with the applicable Phase I Plan and that are recorded as an expense in accordance with IFRS or GAAP as applicable consistently applied. Phase I Development Costs shall include (A) the cost of studies on the toxicological, pharmacokinetic, metabolic, pharmacodynamic or clinical aspects of such Product conducted by individual investigators or consultants in accordance with the applicable Phase I Plan and (B) expenses for data management, statistical designs and studies, document preparation, and other expenses associated with the clinical testing program for the applicable Phase I Plan. For clarity, Phase I Development Costs for each Product shall include (i) manufacturing and supply costs and expenses associated with the Phase I Plan for such Product, and (ii) costs related to preparing and filing Filings associated with the Phase I Plan for such Product (including associated filing fees, translation expenses, and legal and other

professional service fees). All manufacture and supply costs and expenses for Roche Clinical Compounds and Roche Marketed Products shall be at Roche's sole expense. For clarity, Phase I Development Costs shall exclude (a) capital expenditures, and (b) Development Costs.

1.97 Phase I Plan
The term "Phase I Plan" shall mean, for each Collaboration Target, a plan and budget describing the one or more Phase I Studies to be conducted with respect to such Collaboration Target in the Field that will be established and approved by the JDC, with the goal to provide the Option Data Package for such Collaboration Target.

1.98 Phase I Program
The term "Phase I Program" shall mean the activities undertaken by the Parties pursuant to the Phase I Plans for all Collaboration Targets.

1.99 Phase I Study
The term "Phase I Study" shall mean a human clinical trial in any country that would satisfy the requirements of 21 C.F.R. § 312.21(a) (FDCA), as amended from time to time, and the foreign equivalent thereof.

1.100 Phase II Study
The term "Phase II Study" shall mean a human clinical trial, for which the primary endpoints include a determination of dose ranges and/or a preliminary determination of efficacy in patients being studied as described in 21 C.F.R. § 312.21(b) (FDCA), as amended from time to time, and the foreign equivalent thereof.

1.101 Phase III Study
The term "Phase III Study" shall mean a human clinical trial that is prospectively designed to demonstrate statistically whether a product is safe and effective for use in humans in a manner sufficient to obtain regulatory approval to market such product in patients having the disease or condition being studied as described in 21 C.F.R. § 312.21(c) (FDCA), as amended from time to time, and the foreign equivalent thereof.

1.102 Pivotal Study
The term "Pivotal Study" shall mean, with respect to any Licensed Product, a Clinical Study that at the time of commencement (or any later expansion of patient enrollment, if applicable), is expected by the JDC to be the basis for Regulatory Approval of such Licensed Product.

1.103 Post-Marketing Study
The term "Post-Marketing Study" shall mean a non-human or human clinical study of a Licensed Product initiated after receipt of Regulatory Approval for such Licensed Product in a country or territory, which is required by the Regulatory Authority in such country or territory to maintain the Regulatory Approval for such Licensed Product in such country or territory.

1.104 Product
The term "Product" shall mean, on a Collaboration Target-by-Collaboration Target basis, any pharmaceutical product that, prior to Roche's exercise of its Option Right for such Collaboration Target, contains a Collaboration Compound with respect to such Collaboration Target generated under a Research Plan, including without limitation any Combination Product. One Product can be distinguished from another Product by containing a different Collaboration Compound as its active pharmaceutical ingredient. For clarity, a Reversion Product will not be considered a Product.

1.105 Program
The term "Program" shall mean the program to develop and commercialize Licensed Products directed to a specific Collaboration Target in the Field in the Territory. Subject to the program switch right in Section 3.1.4, a Program shall be numbered in accordance with the order in which Roche exercises its Option Right so that "**Program 1**" is the Program to develop and commercialize Licensed Products directed to the first Collaboration Target for which Roche exercises its Option Right; "**Program 2**" is the Program to develop and commercialize Licensed Products directed to the second Collaboration Target for which Roche exercises its Option Right; "**Program 3**" is the Program to develop and commercialize Licensed Products directed to the third Collaboration Target for which Roche exercises its Option Right; "**Program 4**" is the Program to develop and commercialize Licensed Products directed to the fourth Collaboration Target for which Roche exercises its Option Right; and "**Program 5**" is the Program to develop and commercialize Licensed Products directed to the fifth Collaboration Target for which Roche exercises its Option Right.

1.106 Regulatory Approval
The term "Regulatory Approval" shall mean any approvals, licenses, registrations or authorizations by Regulatory Authority, necessary for the manufacture and sale of a Licensed Product in the Field in a regulatory jurisdiction in the Territory.

1.107 Regulatory Authority
The term "Regulatory Authority" shall mean any national, supranational (*e.g.*, the European Commission, the Council of the European Union, the European Medicines Agency), regional, state or local regulatory agency, department, bureau, commission, council or other governmental entity including the FDA, in each country involved in the granting of Regulatory Approval for the Licensed Product.

1.108 Research Plan
The term "Research Plan" shall mean, for each Collaboration Target, a plan describing the screening activities and preclinical development of Library Compounds, Other Compounds and Collaboration Compounds (including Backup Compounds) for such Collaboration Target in the Field up to and including GLP Tox Studies and that is approved by the JRC. Each Research Plan shall also comprise the properties and their related criteria to be measured at defined points of preclinical development.

1.109 Research and Development Term
The term "Research and Development Term" shall mean the period beginning upon the Effective Date and ending upon the earlier of (i) the exercise of the last Option Right available for exercise, or (ii) the expiration of the Option Period for the last Collaboration Target available for exercise.

1.110 Roche Clinical Compounds
The term "Roche Clinical Compounds" shall mean clinical-stage compounds controlled by Roche or its Affiliates (but not Products or Licensed Products) and provided for combination Clinical Studies with Products or Licensed Products.

1.111 Roche Group
The term "Roche Group" shall mean collectively Roche, its Affiliates and its Sublicensees.

1.112 Roche Know-How
The term "Roche Know-How" shall mean (a) all Know-How that Roche and its Affiliates Controls as of the Effective Date or during the Agreement Term to the extent used by Roche or its Affiliates to perform activities under this Agreement (including Roche Sole IP and Roche's interest in Joint IP) (but excluding Supplemental Studies unless BPM opts-in pursuant to Section 7.2), and (b) with respect to Program 2 and Program 4, any Know-How that Roche or its Affiliates uses in Exploiting any Licensed Products for Program 2 and Program 4 (as applicable) (but excluding Supplemental Studies unless Roche opts-in pursuant to Section 7.2), and in each case (a) and (b) that is necessary or useful to perform activities under this Agreement.

1.113 Roche Marketed Products
The term "Roche Marketed Products" shall mean marketed products controlled by Roche or its Affiliates (but not Products or Licensed Products) and provided for combination Clinical Studies with Products or Licensed Products.

1.114 Roche Patent Rights
The term "Roche Patent Rights" shall mean (a) all Patent Rights that Roche and its Affiliates Controls as of the Effective Date or during the Agreement Term to the extent used by Roche or its Affiliates to perform activities under this Agreement (including Roche Sole IP and Roche's interest in Joint IP) (but excluding Supplemental Studies unless BPM opts-in pursuant to Section 7.2), and (b) with respect to Program 2 and Program 4, any Patent Rights that Roche or its Affiliates uses in Exploiting any Licensed Products for Program 2 and Program 4 (as applicable) (but excluding Supplemental Studies unless Roche opts-in pursuant to Section 7.2), and in each case (a) and (b) that are necessary or useful to perform the activities under this Agreement. The Patent Rights identified in Appendix 1.114 ("**Excluded Patent Rights**") are specifically excluded from the Roche Patent Rights.

1.115 Roche Sole IP
The term "Roche Sole IP" shall mean all Patent Rights and Know-How arising from a Roche Invention and all […***…].

1.116 Roche Territory
The term "Roche Territory" shall mean (a) in the case of Program 1, Program 3, and Program 5, all countries of the world, and (b) in the case of Program 2 and Program 4, ROW.

1.117 ROW
The term "ROW" shall mean all countries of the world excluding the US.

1.118 Royalty Term
The term "Royalty Term" shall mean, for each Licensed Product, on a country-by-country basis, the period of time beginning with First Commercial Sale of a Licensed Product in a country and ending on the latest of (i) […***…] after First Commercial Sale in such country of such Licensed Product, (ii) the last to expire Composition of Matter Claim, and (iii) the end of any regulatory exclusivity for such Licensed Product. To the extent the only Valid Claim in the Collaboration Compound IP or BPM IP or any patent rights owned or in-licensed by Roche (only pursuant to Program 2 or Program 4) Covers an approved use of a Licensed Product, the Royalty Term shall expire on a country-by-country basis on the later of (a) […***…] after First Commercial Sale in such country of such Licensed Product or (b) the end of the first Calendar Quarter in which a Generic Product enters the market in such country.

1.119 Sales
The term “Sales” shall mean, for a Licensed Product in a particular period, the sum of (i) and (ii):

(i) the amount stated in the Roche Holding AG “Sales” line of its externally published audited consolidated financial statements with respect to such Licensed Product for such period (excluding sales to any Sublicensees that are not Affiliates of Roche). This amount reflects the gross invoice price at which such Licensed Product was sold or otherwise disposed of (other than for use as clinical supplies or free samples) by Roche and its Affiliates to such Third Parties (excluding sales to any Sublicensees that are not Affiliates of Roche) in such period reduced by gross-to-net deductions, if not previously deducted from such invoiced amount, taken in accordance with the then currently used IFRS.

By way of example, the gross-to-net deductions taken in accordance with IFRS as of the Effective Date include the following:

(a) credits, reserves or allowances granted for (i) damaged, outdated, returned, rejected, withdrawn or recalled Licensed Product, (ii) wastage replacement and short-shipments; (iii) billing errors and (iv) indigent patient and similar programs (*e.g.*, price capitation);

(b) governmental price reductions and government mandated rebates;

(c) chargebacks, including those granted to wholesalers, buying groups and retailers;

(d) customer rebates, including cash sales incentives for prompt payment, cash and volume discounts; and

(e) taxes and any other governmental charges or levies imposed upon or measured by the import, export, use, manufacture or sale of a Licensed Product (excluding income or franchise taxes).

For purposes of clarity, sales by Roche and its Affiliates to any Sublicensee shall be excluded from “Sales”.

(ii) for Sublicensees that are not Roche Affiliates (and excluding Compulsory Sublicensees), the sales amounts reported to Roche and its Affiliates in accordance with the Sublicensee contractual terms and their then-currently used accounting standards. For the purpose of clarity, any such Sublicensee sales as reported to Roche in accordance with Compulsory Sublicense agreements shall be excluded from the sales amount.

1.120 Screening
The term “Screening” shall mean the activities performed jointly by Roche and BPM at the beginning of Part 2 in accordance with this Agreement. The JRC shall approve the Screening plan and any changes thereto.

1.121 Screening Hit
The term “Screening Hit” shall mean any Library Compound identified as a hit after Screening.

1.122 Sublicensee
The term “Sublicensee” shall mean an entity to which Roche or BPM, as applicable, has licensed or sublicensed rights (through one or multiple tiers), other than through a Compulsory Sublicense, pursuant to this Agreement.

1.123 Target
The term “Target” shall mean any protein identified by its Entrez/HUGO number, including all splice variants, mutants, natural variants, and the like reasonably associated with such Entrez/HUGO number, which may be inhibited or modulated by Library Compounds, Other Compounds, Collaboration Compounds, Products, and/or Licensed Products.

1.124 Target Hypothesis
The term “Target Hypothesis” shall mean any hypothesis for a Screening Hit established by both Parties.

1.125 Target Validation
The term “Target Validation” shall mean the activities, including further *in vitro* assays, performed jointly by Roche and BPM following Screening in Part 2 to achieve validation of the Collaboration Targets for which a Target Hypothesis has been established. The JRC shall approve the Target Validation plan and any changes thereto.

1.126 Terminated Target
The term “Terminated Target” shall mean any Collaboration Target that has under Section 21.3.1 become a “Terminated Target.”

1.127 Territory
The term “Territory” shall mean (i) with respect to Roche, the Roche Territory, and (ii) with respect to BPM, the BPM Territory.

1.128 Third Party
The term “Third Party” shall mean a person or entity other than (i) BPM or any of its Affiliates or (ii) a member of the Roche Group.

1.129 US
The term “US” or “United States” shall mean the United States of America and its territories and possessions.

1.130 US$
The term “US$” shall mean US dollars.

1.131 Valid Claim
The term “Valid Claim” shall mean a claim in any (i) unexpired and issued patent that has not been disclaimed, revoked or held invalid by a final non-appealable decision of a court of competent jurisdiction or government agency, or (ii) pending patent application being prosecuted in good faith and has been pending for no more than […***…] from the earliest priority date.

1.132 Additional Definitions

Each of the following definitions is set forth in the Section of this Agreement indicated below:

Definition	Section
AAA	23.3
Accounting Period	13.1
Acquired Party	21.2.3
Alliance Director	8.10
Allowable Exception	7.3.3
Arbitral Tribunal	23.3.1
Bankruptcy Code	22
Biomarker IP	16.1
BPM	Preamble
BPM Deferral Election	7.3.4
BPM Invention	1.62
BPM Member	8.3
BPM Other Program	2.5.4
BPM Specific Patent Rights	16.5(a)
BPM Trademarks	16.4
BPM's Portion	1.82
Breaching Party	21.2.1
Chairperson	8.3
[…***…]	[…***…]
Compulsory Profit Share Percentage	12.9.8
Compulsory Sublicense	1.33
Compulsory Sublicensee	1.33
CREATE Act	16.9
Decision Period	16.10
Deferrable Amount	7.3.4
Development Event	12.7
Disclosing Party	1.34
Excluded Patent Rights	1.114
Exclusive Terms Period	2.2
Expedited Arbitration	23.3.3
Expedited Dispute	23.3.3
Expert Committee	12.9.4
Finance Officers	12.5
[…***…]	[…***…]
Global Trademarks	16.4
GLP Tox Study	1.60
[…***…]	[…***…]
H-W Suit Notice	16.13
Indemnified Party	18.3
Indemnifying Party	18.3
Initiating Party	16.10
Insulated Chemistry Expert	4.1.5
Joint Invention	1.62
Label Pursuit	7.3.1
Members	8.3

Definition	Section
Non-Acquired Party	21.2.3
Non-Breaching Party	21.2.1
Non-Selling Party	11.2
Option Exercise Fee	12.4
Other Component	1.27(a)
Other Compound IP	16.1
Patent Term Extensions	16.14
Payment Currency	13.3
Peremptory Notice Period	21.2.1
Pool	4.1.6
Program 1	1.105
Program 2	1.105
Program 3	1.105
Program 4	1.105
Program 5	1.105
Publishing Notice	20.4
Publishing Party	20.4
Receiving Party	1.34
Redacted Agreement	20.5
Register	16.8
Relative Commercial Value	12.9.4
Reversion License	21.3.1(f)
Reversion Product	21.3.1
Roche	Preamble
Roche Basel	Preamble
Roche Invention	1.62
Roche Member	8.3
[…***…]	[…***…]
Roche Transfer Activities	21.3.4.4(d)
Roche US	Preamble
[…***…]	[…***…]
Samples	21.3.4.4(b)
Selling Party	11.2
Sensitive Information	21.2.3
Settlement	16.10
Shared Development Cost Budget	7.3.3
SPCs	16.14
Suit Notice	16.10
Supplemental Study	7.3.2
Supplemental Study Opt-In Right	7.3.2
Supply Agreement	9.1
Switch	3.1.4
Technology Transfer	9.2
Third Party Acquisition	2.5.4

2. Grant of License and Exclusivity

2.1 Licenses

2.1.1 Research Cross Licenses

Subject to the terms and conditions of this Agreement, Roche hereby grants to BPM a non-transferable (except as provided in Section 23.4), sublicensable (subject to Section 2.3.2), non-exclusive license under Roche Know-How and Roche Patent Rights for BPM to perform its research activities under the Research Plans and development activities under the Phase I Plans, in each case in the Field and during the Research and Development Term.

Subject to the terms and conditions of this Agreement, BPM hereby grants to Roche a non-transferable (except as provided in Section 23.4), sublicensable (subject to Section 2.3.1), non-exclusive license under BPM IP and Collaboration Compound IP for Roche to perform its research activities under the Research Plans and development activities under the Phase I Plans, in each case in the Field and during the Research and Development Term.

2.1.2 Development and Commercial License for Program 1, Program 3 and Program 5

Subject to Roche exercising its Option Right with regard to a Collaboration Target for Program 1, Program 3 or Program 5 (as applicable) as set forth in Section 3.1, BPM hereby grants to Roche, effective upon the Option Exercise Date for such Collaboration Target, a non-transferable (except as provided in Section 23.4), sublicensable (subject to Section 2.3.1), exclusive (even as to BPM but subject to BPM's retained rights, as applicable) license under BPM IP and Collaboration Compound IP to Exploit Licensed Products and Companion Diagnostics for Program 1, Program 3 or Program 5 (as applicable) in the Field in the Roche Territory.

With respect to the Excluded Field, under this Agreement, Roche shall not (and shall require its Affiliates and Sublicensees to not) research, develop, manufacture or commercialize any Library Compound, Collaboration Compound, Other Compound, Product or Licensed Product for Program 1, Program 3 or Program 5 (as applicable) in the Excluded Field. For clarity, the foregoing restriction does not apply to any of Roche's or its Affiliate's or Sublicensee's research, development, manufacture or commercialization programs or activities outside of this Agreement.

Notwithstanding any other provision of this Agreement, for the purposes of the license grants under this Section 2.1.2 with respect to any Licensed Product that is a Combination Product, (i) such license will only include a license with respect to the Collaboration Compound in such Combination Product, and (ii) in no event is a license granted hereunder with respect to any Other Component of a Combination Product.

2.1.3 Development and Commercial Licenses for Program 2 and Program 4

Subject to Roche exercising its Option Right with regard to a Collaboration Target for Program 2 or Program 4 (as applicable) as set forth in Section 3.1, BPM hereby grants to Roche, effective upon the Option Exercise Date for such Collaboration Target, a non-transferable (except as provided in Section 23.4), sublicensable (subject to Section 2.3.2), exclusive (even as to BPM but subject to BPM's retained rights, as applicable) license under BPM IP and Collaboration Compound IP to Exploit Licensed Products and Companion Diagnostics for Program 2 or Program 4 (as applicable) in the Field in the Roche Territory.

Notwithstanding the foregoing, for Program 2 or Program 4, BPM retains the right under the BPM IP and Collaboration Compound IP, with the right to grant licenses through multiple tiers, to

develop each Product or Licensed Product (as applicable) in the Field anywhere in the world, in each case solely as and to the extent permitted in any Phase I Plan or Development Plan or as otherwise permitted under Section 7.2 or elsewhere under this Agreement, and in each case, solely for Regulatory Approval and commercialization in the BPM Territory.

With respect to the Excluded Field, under this Agreement, Roche shall not (and shall require its Affiliates and Sublicensees to not) research, develop, manufacture or commercialize any Library Compound, Collaboration Compound, Other Compound, Product or Licensed Product for Program 2 or Program 4 in the Excluded Field. For clarity, the foregoing restriction does not apply to any of Roche's or its Affiliate's or Sublicensee's research, development, manufacture or commercialization programs or activities outside of this Agreement.

Notwithstanding any other provision of this Agreement, for the purposes of the license grants under this Section 2.1.3 with respect to any Licensed Product that is a Combination Product, (i) such license will only include a license with respect to the Collaboration Compound in such Combination Product, and (ii) in no event is a license granted hereunder with respect to any Other Component of a Combination Product.

Subject to Roche exercising its Option Right with regard to a Collaboration Target for Program 2 or Program 4 (as applicable), Roche hereby grants to BPM, effective upon the Option Exercise Date for such Collaboration Target, a non-transferable (except as provided in Section 23.4), sublicensable (subject to Section 2.2 and Section 2.3.2), exclusive (even as to Roche but subject to Roche's retained rights, as applicable) license, under Roche Know-How and Roche Patent Rights to Exploit Licensed Products and Companion Diagnostics for Program 2 or Program 4 (as applicable) in the Field in the BPM Territory.

2.1.4 Manufacturing Licenses

Subject to the terms and conditions of this Agreement, BPM hereby grants to Roche a non-transferable (except as provided in Section 23.4), sublicensable (subject to Section 2.3.1), worldwide, non-exclusive license under BPM IP and Collaboration Compound IP for Roche to manufacture and have manufactured Collaboration Compounds, Products and Licensed Products solely to perform its activities under Section 9.1.

Subject to the terms and conditions of this Agreement, Roche hereby grants to BPM a non-transferable (except as provided in Section 23.4), sublicensable (subject to Sections 9.3 and 9.4), worldwide, non-exclusive license under Roche Patent Rights, Roche Know-How and […***…] for BPM to manufacture and have manufactured Collaboration Compounds, Products and Licensed Products solely to perform its activities under Section 9.1.

Subject to the terms and conditions of this Agreement, Roche hereby grants to BPM a non-transferable (except as provided in Section 23.4), sublicensable (subject to Sections 9.3 and 9.4), worldwide, non-exclusive license under […***…] for BPM to manufacture and have manufactured Other Compounds and any derivatives thereof.

2.1.5 Licenses to Conduct Supplemental Studies

Subject to the terms and conditions of this Agreement, BPM hereby grants to Roche a non-transferable (except as provided in Section 23.4), sublicensable (subject to Section 2.3.1),

worldwide, non-exclusive license under BPM IP and Collaboration Compound IP for Roche to conduct Supplemental Studies in compliance with Section 7.3.2.

Subject to the terms and conditions of this Agreement, Roche hereby grants to BPM a non-transferable (except as provided in Section 23.4), sublicensable (subject to Section 2.3.2), worldwide, non-exclusive license under Roche Patent Rights and Roche Know-How for BPM to conduct Supplemental Studies in compliance with Section 7.3.2.

2.1.6 Rights of Reference

Each Party hereby grants to the other Party, and at the request of the other Party will grant to the other Party's Affiliates, a "Right of Reference", as that term is defined in 21 C.F.R. § 314.3(b) (or any successor rule or analogous law recognized outside of the United States), to, and a right to copy, access, and otherwise use, all information and data (including all CMC information as well as data made, collected or otherwise generated in the conduct of any Clinical Studies or upon exercise of the Supplemental Study Opt-In Right, Supplemental Studies, or early access/named patient programs for the applicable Products or Licensed Products) included in or used in support of any regulatory filing, Regulatory Approval, drug master file or other regulatory documentation (including orphan drug applications and designations) maintained on behalf of such Party (or its Affiliates) that relates to any Product or Licensed Product, to the extent necessary or useful to obtain Regulatory Approval of a Product or Licensed Product in the BPM Territory or the Roche Territory, as applicable, and such Party will provide a signed statement to this effect, if requested by the other Party, in accordance with 21 C.F.R. § 314.50(g)(3) (or any successor or analogous law outside of the United States). In addition, upon reasonable request of either Party (on behalf of itself or a Sublicensee), the other Party will obtain and provide to the requesting Party certificates or other formal or official attestations concerning the regulatory status of the Products or Licensed Products in the BPM Territory or the Roche Territory, as applicable (*e.g.*, Certificates of Free Sale, Certificates for Export, Certificates to Foreign Governments), at the requesting Party's request, and provided further that such attestations are reasonably necessary for the requesting Party to exercise its rights under this Agreement. Notwithstanding anything to the contrary in this Agreement other than for safety concerns, neither Party will withdraw or inactivate any regulatory filing that the other Party references or otherwise uses pursuant to this Section 2.1.6.

2.2 Right of First Negotiation and […*…]**

During the Agreement Term, if BPM elects to sublicense or divest to a Third Party part or all of its development or commercialization rights in the BPM Territory pursuant to Program 2 and/or Program 4, then BPM shall promptly notify Roche of its decision to do so and Roche shall have a right of first negotiation to enter into an exclusive negotiation period with BPM in order to reach agreed terms for such a sublicense or divestment. Roche shall inform BPM within […***…] after receipt of notification from BPM ("**Exclusive Terms Period**") as to whether Roche is interested in entering into an exclusive negotiation period. If Roche provides written notice to BPM during the Exclusive Terms Period, then the Parties shall negotiate a term sheet within an additional […***…] period. If the Parties are able to agree upon a term sheet within the […***…] period, then the Parties shall negotiate a definitive agreement within an additional […***…] negotiation period.

If the Parties are unable to reach terms on a term sheet in such […***…] period or on a definitive agreement in the additional […***…] negotiation period, then, at BPM's written election, BPM shall have the right to either (a) negotiate and, subject to […***…], enter into a sublicense or divestment agreement with a Third Party in accordance with Section 2.3.2, or (b) commence Expedited

Arbitration proceedings by providing written notice to Roche to resolve any disputed terms in such term sheet or definitive agreement. […***…] If Roche provides written notice to discontinue such Expedited Arbitration proceedings within such […***…] period, then […***…] shall terminate and BPM shall have the right to negotiate and enter into a sublicense or divestment agreement with a Third Party in accordance with Section 2.3.2. […***…]

If BPM negotiates a sublicense or divestment agreement with a Third Party after either (1) the Parties are unable to reach terms of a term sheet within the […***…] period or terms of a definitive agreement within the additional […***…] negotiation period and either (x) BPM does not exercise its right to commence Expedited Arbitration proceedings or (y) BPM provides written notice to discontinue such Expedited Arbitration proceedings, or (2) Roche does not exercise such right of first negotiation during the Exclusive Terms Period, then […***…].

In all events, this Section 2.1.5 will not apply to (A) any Change of Control of BPM or other permitted assignment of this Agreement under Section 23.4, (B) any bona fide agreement with a CRO, under which such CRO performs contract services on behalf of BPM or any of its Affiliates for the research, development, manufacture or commercialization of any Collaboration Compound, Other Compound, Product or Licensed Product as permitted under this Agreement on a fee-for-services basis, it being understood that under an agreement for such fee-for-services, fees paid to the Third Party for such services may include milestones or royalties, (C) any agreement permitted in compliance with the terms of this Agreement with any academic institution or other not-for-profit Third Party regarding any Collaboration Compound, Other Compound, Product or Licensed Product, or (D) any agreement with a distributor regarding any Licensed Product for Program 2 and Program 4 in the BPM Territory.

If Roche does not exercise such right of first negotiation during the Exclusive Terms Period, then BPM shall have the right to negotiate and, subject to […***…] enter into a sublicense or divestment agreement with a Third Party in accordance with Section 2.3.2.

2.3 Sublicenses

2.3.1 Roche's Scope of Permissible Sublicensing

The license granted by BPM to Roche in Section 2.1.2 and Section 2.1.3 may be sublicensed by Roche through multiple tiers, provided that (i) Roche will ensure that the financial terms included in Section 12 that are applicable to the scope of the sublicense granted remain unchanged, (ii) BPM's obligations to such sublicensed Affiliate or Sublicensee will be no broader than BPM's obligations were to Roche under this Agreement prior to Roche's grant of such a sublicense, (iii) Roche will be liable for any act or omission of any such sublicensed Affiliate or Sublicensee that is a breach of any of Roche's obligations under this Agreement as though the same were a breach by Roche, and BPM will have the right to proceed directly against Roche without any obligation to first proceed against such sublicensed Affiliate or Sublicensee, (iv) Roche will ensure that Roche receives from the Sublicensee all rights necessary for Roche to grant to BPM the rights and licenses upon termination of the Agreement set forth in Section 21.3 and (v) such sublicensed Affiliate or Sublicensee will undertake obligations of confidentiality and non-use regarding Confidential Information that are at least as protective as those undertaken by Roche with respect to Confidential Information pursuant to Section 20 hereof. Roche, as soon as reasonably practicable thereafter, shall provide BPM with a copy of any executed sublicense agreement with a Third Party other than […***…], or a Third Party acting only as a distributor (which copy may be redacted to remove provisions which are not necessary to monitor compliance with this Section 2.3.1).

The license granted by BPM to Roche in Section 2.1.1 may be sublicensed by Roche to a permitted CRO to perform Roche's assigned responsibilities under the Research Plans and Phase I Plans upon prompt written notice to BPM.

The license granted by BPM to Roche in Section 2.3.1 may be sublicensed by Roche to a permitted CRO to perform Roche's assigned responsibilities under Section 9.1.

2.3.2 BPM's Scope of Permissible Sublicensing

The license granted by Roche to BPM in Section 2.1.3 may be sublicensed by BPM through multiple tiers, provided that (i) BPM will ensure that the financial terms included in Section 12 that are applicable to the scope of the sublicense granted remain unchanged, (ii) Roche's obligations to such sublicensed Affiliate or Sublicensee will be no broader than Roche's obligations were to BPM under this Agreement prior to BPM's grant of such a sublicense, and (iii) BPM will be liable for any act or omission of any such sublicensed Affiliate or Sublicensee that is a breach of any of BPM's obligations under this Agreement as though the same were a breach by BPM, and Roche will have the right to proceed directly against BPM without any obligation to first proceed against such sublicensed Affiliate or Sublicensee, (iv) BPM will ensure that BPM receives from the Sublicensee all rights necessary for BPM to grant to Roche the rights and licenses upon termination of the Agreement set forth in Section 21.3 and (v) 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 BPM with respect to Confidential Information pursuant to Section 20 hereof.

The license granted by Roche to BPM in Section 2.1.1 may be sublicensed by BPM to a permitted CRO to perform BPM's assigned responsibilities under the Research Plans and Phase I Plans upon written notice to Roche.

2.4 BPM Third Party Payments

BPM will be responsible for all payments associated with any agreements related to the BPM IP that exist as of the Effective Date, except as otherwise agreed to in writing. For clarity, to the extent payments under those agreements are incurred by BPM pursuant to the Research Plan or Phase I Plan, such payments will not be reimbursed by Roche unless they are specifically included under the Research Plan budget or Phase I Plan budget as an amount to be reimbursed by Roche.

In the event that, after the Effective Date and prior to any Change of Control of BPM, BPM in-licenses BPM IP that would be deemed Controlled for purposes of the licenses granted to Roche under Section 2.1 but for BPM owing payments under the agreement for such in-licensed BPM IP on account of any sublicense granted thereunder to Roche or its Affiliates or Sublicensees, BPM will notify Roche of the existence of and anticipated amounts of such payments and Roche will have the right to decline a sublicense to such in-licensed BPM IP or take such sublicense, in which case Roche agrees to comply with any obligations under such agreement of BPM that apply to Roche and of which Roche was informed by BPM, including any obligation to make such payments. In the event Roche elects to take such sublicense, Roche will make such payments to BPM within thirty (30) days of receiving an invoice from BPM for the same.

2.5 Exclusivity

2.5.1 BPM Exclusivity with regard to Collaboration Targets

On a Collaboration Target-by-Collaboration Target basis, BPM and its Affiliates shall work exclusively with Roche during the Option Period with respect to such Collaboration Target. BPM and its Affiliates shall continue to work exclusively with Roche on each Collaboration Target for which Roche exercises its Option Right until the earliest of (i) (a) for Program 1, Program 3 and Program 5, the First Commercial Sale by the Roche Group in the Roche Territory of the first Licensed Product with respect to such Collaboration Target, or (b) for Program 2 and Program 4, the First Commercial Sale by the Roche Group or the BPM Group in the Territory of the first Licensed Product with respect to such Collaboration Target, (ii) such Collaboration Target becomes a Leftover Target, or (iii) such Collaboration Target becomes a Terminated Target.

2.5.2 BPM Exclusivity with regard to Cancer Immunotherapy

BPM and its Affiliates shall work exclusively with Roche in the field of cancer immunotherapy until Target Validation for Part 2 is completed and the Pool is established by the JRC, but in any event for no more than thirty (30) months after the Effective Date. […***…] Excluded Targets and Leftover Targets (and research and development activities with respect thereto), and customary screening and early-stage chemistry and biology work performed by and on behalf of BPM in the ordinary course, shall not be subject to or otherwise prohibited by this Section 2.5.2. The conduct of general screening activities by or on behalf of BPM or its Affiliates shall not be deemed a breach of this Section 2.5.2 unless and until BPM or its Affiliates decides to pursue a Target for additional development.

2.5.3 BPM Rights if Roche is not Exclusive for a Collaboration Target

If Roche or its Affiliates gain access (such as through licensing or acquisition from a Third Party) to a compound or product targeting a Collaboration Target prior to exercising its Option Right for such Collaboration Target, then Roche shall immediately notify BPM in writing and BPM shall have the right upon written notice to Roche to terminate (i) Roche's Option Right to such Collaboration Target and (ii) all activities under the Research Plan and Phase I Plan for such Collaboration Target. If BPM opts for such termination, then such Collaboration Target will become a Leftover Target and all associated Collaboration Compounds and Products will become Reversion Products. […***…]

If Roche or its Affiliates gain access (*e.g.*, via licensing or acquisition or internal program, or any other way) to a compound or product targeting a Collaboration Target after exercising its Option Right for such Collaboration Target, then without affecting the rights and obligations of the parties under this Agreement, for clarity, BPM shall have no right of termination as set forth above and Roche shall continue to use Commercially Reasonable Efforts to develop and commercialize Licensed Products corresponding to such Collaboration Target.

In the case of Program 2 or Program 4, if Roche or its Affiliates gain access (*e.g.*, via licensing or acquisition or internal program, or any other way) to a compound or product targeting a Collaboration Target of such Program 2 or Program 4 and exercises its Option Right for such Collaboration Target (before or after gaining such access), and such compound or product has initiated (i.e., the date that a human is first dosed with the compound or product in a human clinical study) (i) a Phase II Study in the case of a compound or product accessed from a Third Party or internally (other than from […***…]) or (ii) a Phase III Study in the case of a compound or product

accessed from […***…], then BPM's obligation of exclusivity under Section 2.5.1 with respect to such Collaboration Target shall automatically and immediately terminate. Roche shall as soon as practicable notify BPM in writing upon any such initiation of such Phase II Study or Phase III Study (as applicable).

2.5.4 Limitations on BPM Exclusivity Obligations

The Parties hereby acknowledge and agree that (I) after expiration of the obligations set forth in Section 2.5.2, Sections 2.5.1 and 2.5.2 will not apply to any compound or product that is intended to modulate (including inhibit) any target(s) other than a Collaboration Target; and (II) BPM retains (for itself and its Affiliates and licensees and subcontractors) (A) the right to research (but not preclinically or clinically develop or commercialize) Collaboration Compounds, Products and Licensed Products outside of the applicable Research Plans, (B) the right, solely to the extent reasonably necessary for any such research, to manufacture Collaboration Compounds, Products and Licensed Products outside of the applicable Research Plans, and (C) the rights under the license grants in Section 2.1 or elsewhere in this Agreement or elsewhere retained under this Agreement.

Notwithstanding Section 2.5.1 and Section 2.5.2, and subject to the next paragraph, in the event that BPM or its Affiliates acquire a Third Party or a portion of the business of a Third Party (whether by merger, stock purchase, purchase of assets, in-license or other means) (a "**Third Party Acquisition**") that is, prior to such Third Party Acquisition, conducting a research, development or commercialization program or activities that, if conducted by BPM at such time, would be a breach of BPM's exclusivity obligation in Section 2.5.1 or Section 2.5.2 (a "**BPM Other Program**"), BPM may elect […***…]. BPM will not be deemed in breach of Section 2.5.1 and Section 2.5.2 with respect to such BPM Other Program so long as BPM complies with the terms of Section 2.5.1 and Section 2.5.2 and provided that such BPM Other Program is conducted independently of BPM's activities under this Agreement and without any use of any Roche Know-How, Roche Patent Rights or Roche Confidential Information or material use (other than the retained rights above) of the Collaboration Compounds.

In the event of a Change of Control of BPM, the exclusivity obligations of BPM set forth in Section 2.5.1 and Section 2.5.2 will not apply to any research, development or commercialization program or activities that, if conducted by BPM at such time would be a breach of BPM's exclusivity obligations in Section 2.5.1 or Section 2.5.2, (I) is owned, in-licensed or otherwise controlled by a Third Party described in the definition of "Change of Control" or its Affiliates prior to the closing of such Change of Control or (II) becomes owned, in-licensed or otherwise controlled by such Third Party or its Affiliates (other than by BPM or any of its direct or indirect subsidiary Affiliates) after the closing of such Change of Control, in each case ((I) and (II)) if such BPM Other Program is conducted independently of BPM's activities under this Agreement and without any use of any Roche Know-How, Roche Patent Rights or Roche Confidential Information or material use (other than the retained rights above) of the Collaboration Compounds.

With respect to the two preceding paragraphs of this Section 2.5.4, BPM and its Affiliates (including such Third Party and its Affiliates under the preceding paragraph) will adopt reasonable procedures (which include appropriate administrative, physical and technical safeguards, including underlying operating system and network security controls and other firewalls) to prevent the use of any Roche Know-How, Roche Patent Rights or Roche Confidential Information or material use (other than the retained rights above) of the Collaboration Compounds in a manner that is not in compliance with the two preceding paragraphs of this Section 2.5.4.

3. Option of Roche

3.1 Option Right

3.1.1 General

On a Collaboration Target-by-Collaboration Target basis, Roche is granted up to five (5) exclusive Option Rights to obtain an exclusive or co-exclusive license to Exploit Products containing a Collaboration Compound directed to the Collaboration Target to which the Option Right pertains in the Field in the Territory. Once the Option Right for a Collaboration Target is exercised, such Products become "Licensed Products" and the program for the development and commercialization of such Licensed Products becomes a "Program." The designation of a Program as Program 1, Program 2, Program 3, Program 4 or Program 5 will occur as specified in the definition of Program.

3.1.2 Grant of Option Right

On a Collaboration Target-by-Collaboration Target basis, BPM hereby grants to Roche during the Option Period an exclusive Option Right for each Collaboration Target to obtain the licenses set forth in Section 2.1.2, Section 2.1.3 and Section 2.1.4 with respect to such Collaboration Target, Licensed Products and Program.

3.1.3 Exercise of Option Right

In the event the Option Data Package Trigger is determined pursuant to Section 1.83(a),for each Collaboration Target, within […***…] after the Option Data Package Trigger, (i) each Party will deliver its portion of the Option Data Package with respect to such Collaboration Target, and (ii) BPM will afford Roche the information rights under Section 3.2. In the event that Roche determines that BPM's Portion of an Option Data Package for a Collaboration Target is incomplete or insufficient, then Roche shall provide written notice to BPM identifying all such deficiencies. If BPM disputes the existence of any such deficiencies, BPM may, at its election, refer such dispute for resolution in accordance with Section 8.8.3. If BPM's Portion of such Option Data Package for a Collaboration Target is determined to be incomplete or insufficient, BPM shall promptly upon curing all deficiencies re-deliver an updated version of BPM's Portion of such Option Data Package for such Collaboration Target to Roche; provided that Roche may not request a further updated version of BPM's Portion of such Option Data Package for such Collaboration Target for a period of […***…].

On a Collaboration Target-by-Collaboration Target basis, Roche shall have the right to exercise its Option Right during the Option Period for a given Collaboration Target. Roche will exercise an Option Right for a Collaboration Target, if at all, by properly delivering an Option Exercise Notice for such Collaboration Target at any time during the Option Period for such Collaboration Target.

In the event the Option Data Package Trigger is not determined pursuant to Section 1.83(a), the JDC will set a cut-off date for the data resulting from the Phase I Studies conducted by the Parties for each Collaboration Target so that such data may be included in an Option Data Package for such Collaboration Target in a timely fashion. Such cut-off date shall be determined as follows:

(a) […***…]

(b) […***…]

In the event that (a) a Product is for a […***…], (b) such Product satisfies all Option Data Criteria other than the […***…], and (c) Roche wishes to extend the Option Period for such Collaboration Target until all of the Option Data Criteria are satisfied (but in any event no longer than the […***…] anniversary of the date the MTD for the first Combination Product for such […***…] is confirmed by the JDC plus […***…]), then Roche shall provide written notice to BPM of Roche's election to extend the Option Period and pay to BPM an Option Period extension fee equal to (v) […***…] for the first Collaboration Target for which Roche exercises its extension right under this Section 3.1.3, (w) […***…] for the second Collaboration Target for which Roche exercises its extension right under this Section 3.1.3, (x) […***…] for the third Collaboration Target for which Roche exercises its extension right under this Section 3.1.3, (y) […***…] for the fourth Collaboration Target for which Roche exercises its extension right under this Section 3.1.3, and (z) […***…] for the fifth Collaboration Target for which Roche exercises its extension right under this Section 3.1.3. Such Option Period extension fee shall be due and payable by Roche to BPM within thirty (30) days after the determination that such Product satisfies all Option Data Criteria other than the […***…]. The Parties agree that […***…] of any such Option Period extension fee payment […***…] in accordance with Section 12.4, provided that (i) each Option Period extension fee payment […***…] only if Roche exercises its Option Right for such Collaboration Target, and (ii) any amounts that are […***…] in accordance with Section 12.4 (but may not be applied to any other payments under this Agreement). […***…] for each Collaboration Target […***…] will be due and payable after Roche's exercise of its Option Right for such Collaboration Target in accordance with Section 12.4. In the event that (a) a Product is for a […***…], (b) such Product satisfies all Option Data Criteria other than the […***…], and (c) Roche does not pay the Option Period extension fee as set forth above, then such […***…] shall be a Terminated Target.

For any Collaboration Target to which Roche does not timely exercise its Option Right, then, effective as of the expiration of the Option Period for such Collaboration Target, (a) all research and development activities with respect to such Collaboration Target shall terminate, (b) such Collaboration Target shall become a Leftover Target, (c) BPM shall retain all rights, title and interest in and to all Library Compounds, Other Compounds, Collaboration Compounds and Products for such Collaboration Target, (d) all rights and obligations (including the licenses to Roche) under this Agreement with respect to such Collaboration Target shall terminate, (e) the right of first negotiation and matching right under Section 2.2 with respect to such Collaboration Target shall terminate, and (f) the exclusivity provisions under Section 2.5 shall terminate. For clarity, if Roche does not timely exercise its Option Right related to a given Collaboration Target, and BPM desires to continue to research, develop or commercialize such Collaboration Compound or Product in combination with a Roche Clinical Compound or Roche Marketed Products, then Roche will consider, at its sole discretion, supplying such Roche Clinical Compound or Roche Marketed Products to BPM or its designee pursuant to a supply agreement on terms and conditions to be agreed upon by the Parties in good faith.

3.1.4 One Time Program Switch Right

After Roche's receipt of the first Option Data Package for a Collaboration Target or at the end of the Option Period for the first Collaboration Target, Roche shall have a one-time right to exercise its Option Right for such Collaboration Target by declaring such Collaboration Target as "Program 2", thereby declaring the next most advanced Collaboration Target as designated by the JRC or JDC (as applicable) as "Program 1" (the "**Switch**"). If Roche elects to make the Switch, then Roche shall provide written notice to BPM prior to expiration of the Option Period for the first Collaboration Target of Roche's election to make the Switch and identify the Collaboration Target

that will be “Program 2” and the Collaboration Target that will be “Program 1”. If Roche makes the Switch, then Roche shall pay both the Program 1 Option Exercise Fee and the Program 2 Option Exercise Fee as set forth in Section 12.4, subject to the limitations in the following paragraph.

In the event that Products for Program 1 and Program 2 are each being developed or planned to be developed in Phase I Studies as Products for a […***…] pursuant to Section 5.1.3, then, simultaneously with the Switch, Roche shall exercise its Option Right with respect to the next most advanced Collaboration Target as designated by the JRC or JDC (as applicable) making it “Program 1”. The Program 1 Option Exercise Fee shall be payable as set forth in Section 12.4, i.e. […***…] within […***…] after Roche exercises its Option Right and receipt of an invoice from BPM. If such next most advanced Collaboration Target has reached MTD more than […***…] prior to the Switch election, then the Program 2 Option Exercise Fee (i.e., […***…]) shall be payable at the same time as the Program 1 Option Exercise Fee. If such next most advanced Collaboration Target has either not yet reached MTD or not reached MTD within […***…] preceding the Switch, then the Program 2 Option Exercise Fee (i.e., […***…]) shall be payable only (i) after BPM has provided Roche with the Option Data Package for the Collaboration Target declared as Program 1 as per the Switch, and Roche has determined, within […***…] after Roche receives the Option Data Package, to not exercise its termination right with respect to the Collaboration Target declared as Program 1 as per the Switch, or (ii) upon Roche Initiating a Clinical Study of a Product or Licensed Product against the Collaboration Target declared as Program 1 as per the Switch. For clarity, if either Program 1 or Program 2 or both are being developed as a […***…] and Roche elects to make the Switch, payments of the Option Exercise Fee for each such Program shall be in accordance with Section 3.1.3 and Section 12.4.

3.2 Information Sharing for Option Rights

After the Option Data Package Trigger for each Collaboration Target and for the remainder of the Option Period with respect to such Collaboration Target, (i) Roche shall have the right to perform reasonable due diligence (including visits to the facilities in which the data were generated and interviews with the persons generating the data) with respect to such Collaboration Target and the applicable Collaboration Compounds and Products, and (ii) representatives of Roche shall have the opportunity to ask questions of and receive answers from representatives of BPM related to the work that has been conducted and the data that have been generated with respect to such Collaboration Target and the applicable Collaboration Compounds and Products. BPM shall respond to Roche’s inquiries in a timely fashion and without delay and shall not withhold any material information regarding such Collaboration Target and the applicable Collaboration Compounds and Products from Roche in response to Roche’s inquiries. For clarity, the disclosure and use of any structures or structural information of the Collaboration Compounds and Products pursuant to this Section 3.2 will be subject to the terms of Section 4.1.4, *mutatis mutandis*.

4. Research Collaboration

4.1 Conduct of the Research

4.1.1 Scope

On a Collaboration Target-by-Collaboration Target basis, BPM shall have lead responsibility for the conduct of all research of Library Compounds, Other Compounds and Collaboration Compounds in the Field in the Territory. The activities conducted under each Research Plan will be overseen by the JRC. For clarity, prior to exercise of its Option Right for a Collaboration Target,

Roche and its Affiliates shall not conduct any research activities under this Agreement with respect to such Collaboration Target except as expressly permitted in the Research Plans. It is understood and agreed that (a) Roche shall not, under this Agreement, research, develop, manufacture or commercialize any Library Compounds, Other Compounds or Collaboration Compounds (and corresponding Products) unless such activities are included in a Research Plan or Phase I Plan, and (b) on a Collaboration Target-by-Collaboration Target basis, upon the start of the first GLP Tox Study of a Collaboration Compound satisfying the CCS Criteria for such Collaboration Target (*e.g.*, the most advanced such Collaboration Compound for such Collaboration Target), BPM shall not be required under this Agreement to conceive or make any new compounds as potential Collaboration Compounds for such Collaboration Target.

4.1.2 Diligent Efforts

On a Collaboration Target-by-Collaboration Target basis, Roche and BPM shall each use Commercially Reasonable Efforts to perform their respective tasks and obligations in conducting all activities ascribed to it in the then-current Research Plan for such Collaboration Target in the Field, in accordance with the time parameters set forth therein.

4.1.3 Research Plans

Unless decided otherwise by the JRC, the Research Plans will be updated at least annually by the JRC and approved by the JRC. The Research Plans will set forth (i) the scope of the research and the resources that will be dedicated to the activities contemplated, including the responsibilities of each Party, (ii) specific objectives for each year, which objectives will be updated or amended, as appropriate, by the JRC as research progresses, and (iii) key deliverables for each Party. The Parties shall prepare a Research Plan for (a) the first three (3) Collaboration Targets (each of […***…], […***…] and […***…]), within thirty (30) days after the Effective Date, and (b) for each additional Collaboration Target, within thirty (30) days after the designation of such Target as a Collaboration Target, which the JRC shall minute. The JRC shall review the Research Plans on an ongoing basis and may amend the Research Plans. Any such changes shall be reflected in written amendments to the Research Plans.

4.1.4 Backup Compounds

The JRC and JDC shall ensure that the Research Plan and Phase I Plan for each Collaboration Target contains a plan for the research and development of Backup Compounds. […***…]. Progress of up to […***…] Collaboration Compounds satisfying CCS Criteria through GLP Tox Studies for a Collaboration Target shall be at BPM's sole expense. Additional Backup Compounds may be progressed through a GLP Tox Study at Roche's sole discretion and expense (including any supply thereof) as part of the Research Plan and under the supervision of the JRC, provided that BPM will have the right to conduct (or have conducted) any such GLP Tox Study, and if BPM elects such right then Roche shall reimburse BPM for any personnel costs, Allocable Overhead or Out of Pocket Expenses incurred by BPM with respect thereto. All Phase I Development Costs for the first Backup Compound for a Collaboration Target in a Phase I Study shall be shared as set forth in Section 12.5 (including subject to the cap stated therein); provided that BPM shall only be obligated to fund one (1) Collaboration Compound for a Collaboration Target at a time in a Phase I Study. Thereafter, all Phase I Development Costs for any Backup Compound for a Collaboration Target in a Phase I Study shall be at Roche's sole expense and discretion (including any supply thereof) as part of the Phase I Plan and under the supervision of the JDC, provided that BPM will have the right to conduct (or have conducted) any such Phase I

Study, and if BPM elects such right then Roche shall reimburse BPM for any Phase I Development Costs incurred by BPM with respect thereto.

4.1.5 Part 1 Activities

In Part 1, the Parties will work on the three (3) specified Collaboration Targets: […***…], […***…] and […***…]. Prior to the JRC determining that […***…] has satisfied […***…], the Parties may upon mutual written agreement replace […***…] with another Collaboration Target. The Parties will select an additional two (2) Collaboration Targets in Part 2, as described in Section 4.1.6.

For each Collaboration Target, BPM will select Library Compounds of different scaffolds offering different starting chemistry points, and exhibiting adequate kinase potency, activity in binding, enzyme and/or biochemical and cell-based assays, kinase selectivity, and ADME characteristics.

Such Library Compounds shall be derivatized by BPM to improve potency, selectivity and ADME profile characteristics (via application of applicable kinase binding assays, cellular target engagement measurements, and *in vitro* ADME profiling), and thereby establish structure-activity relationships of different compound series, including Other Compounds and Collaboration Compounds. […***…].

Further optimization of potency, selectivity and ADME profile characteristics of Library Compounds, Collaboration Compounds and Other Compounds by BPM during Lead Optimization shall enable *in vivo* Animal POC experiments of selected Collaboration Compounds by Roche or a CRO (provided that Roche shall continue to bear responsibility for the conduct of such experiments). Additional ADME/PK/safety/stability testing and pre-formulation activities performed by BPM during Lead Optimization shall help identify Collaboration Compounds meeting CLS Criteria and finally CCS Criteria. The JRC shall discuss the use of CROs for such activities. Any CRO recommended by the JRC shall either be listed in Appendix 1.38 or otherwise approved by Roche (such approval not be unreasonably withheld, conditioned or delayed). […***…]. At Lead Nomination and/or during Lead Optimization, as per Section 8.4, the JRC will also recommend whether Roche's chemistry resources should be included in Lead Optimization to address issues including BPM resource constraints or to assist with problem-solving. In summary, the work during Lead Optimization is being performed by BPM, with Roche providing protein crystallography and modeling support and input to the preclinical evaluation, and the JRC recommending further Roche contributions including chemistry resources. For clarity, except as provided for in Section 21.2.3, the Roche Group is granted no right under this Agreement to perform any medicinal chemistry activities with respect to Library Compounds, Other Compounds, Collaboration Compounds, Products or Licensed Products under this Agreement unless authorized by the JRC or by the mutual agreements of the Parties.

A chemistry expert at Roche ("**Insulated Chemistry Expert**") shall be designated in writing by Roche to review structures of Other Compounds and Collaboration Compounds at the start of the collaboration and throughout the Lead Nomination phase. The Insulated Chemistry Expert shall independently handle the structural information and no structures provided by BPM to the Insulated Chemistry Expert can be shared with any other individuals within Roche other than members of senior management specified on Appendix 4.1.5 acting in their decision making capacity. For clarity, these structures cannot be used for any other purpose, including any research purpose. Appropriate safeguards will be established by Roche that are intended to prevent any inadvertent disclosure or improper use of these structures and any structural information related to such structures. From Lead Nomination onwards and throughout Lead Optimization, the structures of Other Compounds and Collaboration Compounds in the Lead

Optimization phase shall be shared with the Roche project team members (including Collaboration Compounds meeting Lead Series Identified Criteria, CLS Criteria and CCS Criteria).

In order to enable manufacture of batches of selected Collaboration Compounds for GLP Tox Studies, BPM or Roche (as determined by the JRC) shall initiate activities for manufacturing process optimization (including establishment of an entry into GLP Tox manufacturing process), entry into GLP Tox formulations, GLP analytics including establishment of specifications for drug substance and drug product at the appropriate time point after CLS, with specifications aligned by the JRC in accordance with Section 8.4. […***…] At the meeting of CCS Criteria, an entry-into-human formulation strategy shall also be available and aligned by the JRC.

Subject to Section 4.1.4, GLP Tox Studies, after confirmation of Collaboration Compound exposure with the GLP Tox batch, shall be performed by BPM in both rodent and non-rodent species […***…], at BPM's expense, as a final step of the preclinical phase at a CRO approved by Roche (such approval not to be unreasonably withheld, conditioned or delayed) unless the CRO is already listed in Appendix 1.38.

4.1.6 Part 2 Activities

Part 2 shall start with Screening of Library Compounds selected by both Parties (*e.g.*, the diversity set comprised in BPM Technology) in both assays performed by BPM (Jurkat-cell based) and by Roche ([…***…]), and the screening and validation phase of Part 2 shall end on the earlier of […***…]. It is anticipated that the Screening phase will last approximately […***…]. Screening Hits shall be selected by the JRC and taken forward into Target Validation, with the Target Validation plan approved by the JRC, including any Library Compound derivatization during the Target Validation phase to test Library Compounds, Other Compounds and Collaboration Compounds. It is anticipated that at least […***…] as a shared effort between BPM and Roche with studies being performed by both Parties. Target Validation aims to deliver a pool of validated Collaboration Targets as determined by the JRC ("**Pool**"). For Collaboration Targets selected in Part 2, a Research Plan will be established prior to initiating Lead Nomination Activities based on Library Compounds, Other Compounds or Collaboration Compounds identified during the respective Target Validation. The JRC shall select the Collaboration Targets from the Pool to be further pursued in Part 2 for Lead Nomination. If the JRC is unable to reach consensus on the selection of Collaboration Targets to pursue in Part 2, then Roche and BPM shall each select one (1) Collaboration Target for Part 2. Activities from Lead Nomination onwards for such selected Part 2 Collaboration Targets shall follow the outline described under Part 1 activities. If Collaboration Compounds for a given Target from this Part 2 fail no later than in *in vivo* Animal POC experiments performed by or on behalf of Roche, and provided there are additional Collaboration Targets remaining in the Pool, then the JRC may replace a Collaboration Target with another Collaboration Target from the Pool. The JRC's replacement right shall not exceed two (2) Collaboration Target replacements, and shall not extend beyond completion of Animal POC experiments for such Collaboration Targets. If the JRC is unable to reach consensus on a replacement for a Collaboration Target, then […***…]. After the JRC's right to replace Collaboration Targets from the Pool has ended pursuant to this Section 4.1.6, all Collaboration Targets still then within the Pool shall automatically become Leftover Targets, and both Parties shall have rights to further research and develop compounds and products related to any Leftover Targets outside of the Agreement without any financial obligations owed to the other Party. For clarity, (a) the JRC shall have the right to replace […***…] as set forth in Section 4.1.5, (b) the JRC shall have the right to replace the fourth or fifth Collaboration Targets no later than in *in vivo* Animal POC experiments for such Collaboration Target as set forth in this Section 4.1.6, and (c) the JRC shall have no right to replace […***…] or […***…].

4.2 Records; Reports

4.2.1 Progress Reports

At least quarterly during the Research and Development Term, (i) BPM shall prepare and provide to the JRC a detailed summary of the progress of the work performed by BPM under the Research Plans during the preceding Calendar Quarter and (ii) Roche shall update the JRC with a detailed summary of the progress of the work performed by Roche under the Research Plans during the preceding Calendar Quarter. Promptly upon expiry of the Research and Development Term, each Party shall provide a final written report to the JRC summarizing its activities under the Research Plans and the results thereof.

4.2.2 Research Records

Each Party shall maintain records of all research conducted under the Research Plans (or cause such records to be maintained) in sufficient detail and in good scientific manner as will properly reflect all work done and results achieved by or on behalf of such Party in the performance of activities under the Research Plans. All laboratory notebooks shall be maintained for no less than the term of any Patent Rights issuing therefrom.

5. Conduct of the Phase I Program

5.1 Phase I Program

5.1.1 Scope

On a Collaboration Target-by-Collaboration Target basis, BPM shall have the lead responsibility for the conduct of all Phase I Studies (even if Roche elects to exercise its Option Right before the completion of Phase I Studies), other than those Phase I Studies involving Roche Clinical Compounds or Roche Marketed Products, in accordance with the Phase I Plans. Roche shall have the right to conduct all Phase I Studies involving Roche Clinical Compounds or Roche Marketed Products in accordance with the Phase I Plans. The activities conducted in connection with the Phase I Program will be overseen by the JDC. For clarity, Roche and its Affiliates shall not conduct any Phase I Studies with respect to such Collaboration Target except as expressly permitted in the Phase I Plans.

5.1.2 Diligent Efforts

For each Collaboration Target, Roche and BPM shall each use Commercially Reasonable Efforts to perform their respective tasks and obligations in conducting all activities ascribed to it in the then-current Phase I Plan for such Collaboration Target, in accordance with the time parameters set forth therein.

5.1.3 Phase I Plan

The JDC shall strive by consensus to prepare a Phase I Plan for each Collaboration Target no later than thirty (30) days after the start of GLP Tox Studies for such Collaboration Target. Each Collaboration Target will be designated by the JDC as either a […***…] or a […***…] in the applicable Phase I Plan. […***…], the JDC shall amend the Phase I Plan for such Collaboration Target (if needed).

BPM shall prepare the initial draft of each Phase I Plan for any […***…], unless the combination is with a Roche Clinical Compound or Roche Marketed Product, in which case Roche shall prepare the initial draft of each such Phase I Plan. The JDC shall review each Phase I Plan on an ongoing basis and may amend such Phase I Plan. Any such changes shall be reflected in written amendments to such Phase I Plan. The Parties will conduct the Phase I Program in accordance with the Phase I Plans. Each Phase I Plan will set forth (i) the scope of the initial Phase I Studies for such Collaboration Target and the resources that will be dedicated to the activities contemplated within the scope of such Phase I Studies, including the responsibilities of each Party, (ii) projected patient enrollment rates consistent with Roche's historic enrollment rates for similar drug candidates in Phase I Studies, (iii) specific objectives for Calendar Year end in which such initial Phase I Studies are conducted, which objectives will be updated or amended, as appropriate, by the JDC as development progresses, and (iv) a rolling two (2) year budget for such anticipated activities to be performed during the then-current Calendar Year and the next Calendar Year, and a forecast of the budgets for each subsequent Calendar Year thereafter through completion of all development activities set forth in such Phase I Plan; provided that BPM shall have no obligation to incur any Phase I Development Costs in excess of […***…] for all Phase I Studies for each Phase I Plan for each Collaboration Target as further described in Section 12.5. […***…].

5.1.4 Phase I Studies

BPM shall keep Roche informed and consult with Roche as needed through the JDC on the progress of Phase I Studies conducted by BPM.

5.1.5 Duration

On a Collaboration Target-by-Collaboration Target basis, the Phase I Program for a Collaboration Target shall commence on the start of the first Phase I Plan for such Collaboration Target and shall continue until the expiration of the Option Period for such Collaboration Target. […***…].

5.2 Records; Reports

5.2.1 Progress Reports

At least quarterly during the Phase I Program, (i) BPM shall prepare and provide to the JDC a detailed summary of the progress of the work performed by BPM under the Phase I Plans during the preceding Calendar Quarter and (ii) Roche shall prepare and provide to the JDC a detailed summary of the progress of the work performed by Roche under the Phase I Plans during the preceding Calendar Quarter. Promptly upon expiry of the Research and Development Term, each Party shall provide a final written report to the JDC summarizing its activities under the Phase I Plans and the results thereof.

5.2.2 Phase I Records

Each Party shall maintain records of all Phase I Studies conducted under the Phase I Plans (or cause such records to be maintained) in sufficient detail and in good scientific manner as will properly reflect all work done and results achieved by or on behalf of such Party in the performance of activities under the Phase I Plans. All laboratory notebooks shall be maintained for no less than the term of any Patent Rights issuing therefrom.

6. Diligence

Each Party shall use Commercially Reasonable Efforts in the conduct of each Research Plan and Phase I Plan.

For any Collaboration Target for which Roche exercises its Option Right, Roche shall use Commercially Reasonable Efforts to further develop (pursuant to the agreed Development Plan) and commercialize at least one (1) Licensed Product in at least one (1) Indication in the Field in the Roche Territory.

For Program 2 and Program 4, BPM shall use Commercially Reasonable Efforts to further develop (pursuant to the agreed Development Plan) and commercialize at least one (1) Licensed Product in at least one (1) Indication in the Field in the BPM Territory.

7. Development

7.1 Scope

Subject to the terms of this Section 7, after exercise of its Option Right for a Collaboration Target and other than with respect to the Phase I Program, (i) subject to Section 7.3, Roche shall have responsibility for the conduct of all clinical development for Licensed Products in the Field in the Territory subject to the applicable sharing of Phase I Development Costs and Development Costs, (ii) Roche shall have responsibility for the design and conduct of all research and development of Companion Diagnostics for Licensed Products in the Field in the Territory, and (iii) Roche shall have the responsibility for the design of, and the right to conduct, all Clinical Studies for a given Collaboration Target involving Roche Clinical Compounds or Roche Marketed Products. Clinical development of Licensed Products in the Field in the Territory shall be overseen by the JDC subject to Section 7.3.

7.2 Management

For development of Licensed Products in Program 1, Program 3, and Program 5, Roche shall keep BPM informed of clinical development activities for Licensed Products in the Field in the Roche Territory and share the Development Plan through the JDC. Roche shall be responsible for all decision making with respect to clinical development of Licensed Products in Program 1, Program 3 and Program 5 in the Field in the Roche Territory.

7.3 Development of Program 2 and Program 4

7.3.1 Consensus and Label Pursuits

For development of Licensed Products in Program 2 and Program 4, the Parties shall strive to reach consensus on the Development Plan through the JDC with the intent to establish a global clinical plan that benefits both Parties in their respective regions for commercialization. If the JDC is unable to agree on elements of the Development Plan (as to Indications, Label Pursuits, or design of the global Clinical Studies), then Roche shall have final say with respect to the Development Plan where such Development Plan shall include no more than a total of […***…] (each a "**Label Pursuit**") of which no more than a total of […***…] Label Pursuits may include simultaneous Pivotal Studies) unless the Parties mutually agree otherwise, provided that if the Parties mutually agree to co-formulate a Combination Product involving Roche Clinical Compounds or Roche Marketed Products, then the Parties shall mutually agree to the applicable portion of the Development Plan. By way of example, triple negative breast cancer and hormone-receptor positive breast cancer shall be considered two (2) distinct Label Pursuits.

7.3.2 Supplemental Studies

Roche shall have responsibility for the conduct of all Clinical Studies for Licensed Products in the Field in the Territory pursuant to the Development Plan other than Supplemental Studies. In addition, after the first Regulatory Approval for a Licensed Product, to the extent that (a) a Party desires to conduct any Clinical Studies in a Label Pursuit for such Licensed Product that is not included in the Development Plan, (b) a Party desires to conduct any Clinical Studies for such Licensed Product that are specific to a Party's portion of the Territory, or (c) a Party desires to conduct any Post-Marketing Studies or other post-marketing commitments as mandated or agreed to be conduct with a Regulatory Authority for such Licensed Product, in each case ((a)-(c)) for such Licensed Product that the other Party does not desire to co-fund (each a "**Supplemental Study**"), the Party desiring to conduct such Supplemental Study(ies) may do so at its own cost and expense in its Territory or in the other Party's Territory, subject to the following limitations in this Section 7.3.2.

If a Party wants to conduct a Supplemental Study for a Licensed Product in the other Party's Territory, such Supplemental Study shall require the consent of such other Party, which consent shall not be unreasonably withheld by such other Party; provided that such consent may be reasonably withheld by such other Party if such other Party determines in good faith using industry-reasonable criteria that such Supplemental Study would likely cause commercial harm to such other Party or its Affiliates or Sublicensees in such other Party's respective Territory. At the request of the Party proposing to conduct such Supplemental Study, such other Party shall explain at the JDC the basis for its determination to withhold its consent to such Supplemental Study in such other Party's Territory. If the Party proposing to conduct the Supplemental Study believes that it is impractical or such Party will be unable to fulfill a post-marketing commitment mandated or agreed to with a Regulatory Authority unless such Supplemental Study is conducted in the other Party's Territory, the Party proposing to conduct such Supplemental Study shall have the burden of demonstrating that it is impractical or unable to conduct such Supplemental Study unless such Supplemental Study is conducted in the other Party's Territory.

The other Party shall have the right (but not the obligation) (the "**Supplemental Study Opt-In Right**") to access any study reports and data of such Supplemental Study(ies) that such other Party did not co-fund for purposes of Filing for Regulatory Approval in such other Party's Territory by paying […***…] of the Development Costs incurred by the Party conducting such Supplemental Study.

For clarity, for Program 2 and Program 4 (i) conduct of Clinical Studies (including Supplemental Studies) in non-oncology Indications shall require mutual agreement of the Parties, and (ii) conduct of Clinical Studies (including Supplemental Studies) using Roche Marketed Products shall require the written consent of Roche.

7.3.3 Shared Development Costs

Within sixty (60) days after exercising its Option Right with respect to each of Program 2 and Program 4, Roche shall provide BPM with an initial Development Plan and a budget for such Program outlining the planned activities and related Development Costs ("**Shared Development Cost Budget**") for such Development Plan. The Shared Development Cost Budget shall include the anticipated Development Costs pursuant to the Development Plan for the remainder of the then current Calendar Year and each of the next two (2) Calendar Years expected to be incurred by each Party and in total. Thereafter, annually, the Development Plan and the Shared Development Cost Budget shall be updated by the JDC such that the Shared Development Cost

Budget shall always reflect the planned activities under the Development Plan for three (3) Calendar Years. If a Party's actually incurred Development Costs for the current Calendar Year exceeds […***…] of its portion of the Shared Development Cost Budget, such excess portion of Development Costs shall be entirely borne by the Party that exceeded its portion of the Shared Development Cost Budget provided that (A) BPM approved the amount included in the Shared Development Cost Budget specifically attributable to the activities conducted by BPM under such Shared Development Cost Budget, and (B) the JDC shall have the right during a Calendar Year to update the Shared Development Cost Budget in the event of (i) faster than planned Clinical Study enrollment, (ii) written guidance or requirements from a Regulatory Authority that would result in amendments to the Development Plan or (iii) mutual agreement by the Parties to amend the Development Plan, each of (i), (ii) and (iii) an "**Allowable Exception**". Additional Development Costs incurred in a Calendar Year resulting from an Allowable Exception shall be subject to sharing of Development Costs pursuant to Section 12.6.

7.3.4 Deferrable Amounts

If the annual update to the Development Plan for such Program results in the Shared Development Cost Budget for the first remaining Calendar Year of the Shared Development Cost Budget increasing by more than […***…] from the then current Shared Development Cost Budget for the then-current Calendar Year or the second remaining Calendar Year increasing by more than […***…] from the then current Shared Development Cost Budget for such Program for the then-current Calendar Year, after taking into consideration any Allowable Exceptions, then BPM shall have the right to elect not to pay its share of actually incurred Development Costs for such Program for such Calendar Year exceeding such percentage of the previous Shared Development Cost Budget for such Program for such Calendar Year (such amount a "**Deferrable Amount**" and such election a ("**BPM Deferral Election**")). If BPM makes a BPM Deferral Election, Roche may elect to either (i) deduct or withhold payments payable to BPM under Section 12.7, 12.8 or 12.9 until […***…] of the Deferrable Amount is repaid to Roche or (ii) increase the royalty rates payable by BPM to Roche under Section 12.9.3 by […***…] (e.g., the first royalty tier would become […***…]) until […***…] of the Deferrable Amount is repaid to Roche, provided that at any time BPM may elect to repay […***…] of such Deferrable Amount in part or in full to Roche in cash. Notwithstanding the foregoing, BPM shall not have the right to make a BPM Deferral Election for any Calendar Year after the First Commercial Sale in the United States for any Licensed Product under this Agreement.

The following is an example that illustrates a possible scenario involving a Licensed Product for a […***…]:

In this example, the Shared Development Cost Budget was provided to BPM in June 2019 in millions of US dollars (US$ Millions) and BPM approved the costs of activities performed by BPM.

	June-Dec 2019 (budgeted)	Jan-Dec 2020 (budgeted)	Jan-Dec 2021 (budgeted)
Roche	[…***…]	[…***…]	[…***…]
BPM	[…***…]	[…***…]	[…***…]
Total	[…***…]	[…***…]	[…***…]

The Shared Development Cost Budget was provided to BPM for 2020, 2021 and 2022 in millions of US dollars (US$ Millions) and BPM approved costs of activities performed by BPM.

	June-Dec 2019 (Actual)	Jan-Dec 2020 (Budgeted)	Jan-Dec 2021 (Budgeted)	Jan-Dec 2022 (Budgeted)
Roche	[…***…]	[…***…]	[…***…]	[…***…]
BPM	[…***…]	[…***…]	[…***…]	[…***…]
Total	[…***…]	[…***…]	[…***…]	[…***…]

As a consequence:

- For 2019, both parties share […***…] the amount of […***…] + […***…] = […***…]

- For 2019, Roche bears on its own the amount of […***…], which […***…] of the originally budgeted amount of […***…]

- BPM can elect the BPM Deferral Election for 2020 because the increase in total budget from […***…] to […***…] is […***…]

(For the below sections we assume that BPM made such election.)

- No Deferral Election can be made for 2021 because the increase in total budget from […***…] to […***…] is […***…]

The Shared Development Cost Budget provided to BPM for 2021, 2022 and 2023 in millions of US dollars (US$ Millions) and BPM approved costs of activities performed by BPM.

	June-Dec 2019 (Actual)	Jan-Dec 2020 (Actual)	Jan-Dec 2021 (Budgeted)	Jan-Dec 2022 (Budgeted)	Jan-Dec 2023 (Budgeted)
Roche	[…***…]	[…***…]	[…***…]	[…***…]	[…***…]
BPM	[…***…]	[…***…]	[…***…]	[…***…]	[…***…]
Total	[…***…]	[…***…]	[…***…]	[…***…]	[…***…]

As a consequence:

- For 2020, because of BPM’s deferral election, both parties share […***…] the amount of […***…]

- BPM pays on its own the […***…], which exceeds the […***…] % of the previously budgeted amount of […***…]

- Roche pays on its own the remaining […***…] ([…***…] total less […***…]shared costs less […***…] solely borne by BPM)

- Roche is entitled to a repayment of […***…] % of BPM's share of the […***…].

- BPM's share of the […***…] equals […***…] and Roche's reimbursement equals […***…][…***…]

- No Deferral Election for 2021 because the increase in total budget from […***…] to […***…] is […***…]
- No Deferral Election for 2022 because the increase in total budget from […***…] to […***…] is […***…]

7.3.5 Updates

For Program 2 and Program 4, each Party will periodically provide to the JDC, on a Calendar Quarter basis, or more frequently as reasonably requested by the JDC, an update regarding development activities conducted by or on behalf of such Party with respect to Licensed Products for such Program, as well as any Supplemental Studies, conducted by or on behalf of such Party with respect to Licensed Products for such Program. The Parties will periodically report to the JDC, but in no event less than on a Calendar Quarter basis, regarding their respective activities conducted under the Development Plan for Licensed Products for such Program. In addition, each Party will promptly share with the other Party all material developments and information that it comes to possess relating to the development of any Licensed Products for such Program and all other data and information that either Party may reasonably request to support Filings in a mutually agreed format, including (a) safety concerns for Licensed Products for such Program, and (b) study reports and data generated from Clinical Studies of such Licensed Products for such Program; provided however, that excluding safety concerns or as required under the Pharmacovigilance Agreement, a Party will not be obligated to share any study reports and data generated from Supplemental Studies conducted by or on behalf of such Party unless the non-proposing Party has not exercised its Supplemental Study Opt-In Right other than to permit the non-proposing Party to determine whether to exercise its Supplemental Study Opt-in Right.

7.3.6 Records

Each Party will maintain scientific records, in sufficient detail and in sound scientific manner appropriate for Patent and regulatory purposes and in compliance with cGCP with respect to activities intended to be submitted in regulatory filings (including INDs and BLAs), which will fully and accurately reflect all work done and results achieved in the performance of the Development activities, Clinical Studies (including Supplemental Studies) with respect to Licensed Products by such Party.

8. Governance

8.1 Joint Research Committee

Within thirty (30) days after the Effective Date, the Parties shall establish a JRC to oversee all activities under the Research Plans.

8.2 JDC

Within thirty (30) days after the first Collaboration Compound achieving CLS Criteria, the Parties shall establish a JDC to oversee development of Products and Licensed Products.

8.3 Members

The JRC and JDC shall each be composed of six (6) persons ("**Members**"). Roche and BPM each shall be entitled to appoint three (3) Members with appropriate seniority, responsibilities and functional expertise within the applicable Party to make decisions arising within the scope of the JRC's or JDC's, as applicable (each such appointee of Roche, a "**Roche Member**," and each such appointee of BPM, a "**BPM Member**"); provided that one Roche Member shall have CMC-related decision-making authority on behalf of Roche at all times. Each Party may replace any of its Members and appoint a person to fill the vacancy arising from each such replacement. A Party that replaces a Member shall notify the other Party at least ten (10) days prior to the next scheduled meeting of the JRC or JDC, as applicable. Both Parties shall use reasonable efforts to keep an appropriate level of continuity in representation. Both Parties may invite a reasonable number of additional experts and/or advisors to attend part or the whole meeting with prior written notification to the JRC or JDC, as applicable. Members may be represented at any meeting by another person designated by the absent Member. Each committee is chaired by a Member ("**Chairperson**"). The JRC shall be chaired by a BPM Member. The JDC shall be chaired by a Roche Member.

8.4 Responsibilities of the JRC

The JRC shall have the responsibility and authority to:

(a) approve each Research Plan and any revisions thereto;

(b) review and oversee the execution of the Research Plans;

(c) approve the Screening plan and any changes thereto;

(d) select Screening Hits for Target Validation;

(e) select Collaboration Targets in Part 2 in accordance with Section 4.1.6;

(f) approve the Target Validation plan and any changes thereto;

(g) approve validated Collaboration Targets to be allocated to the Pool in Part 2;

(h) maintain a list of Collaboration Targets;

(i) establish timelines for research decision points;

(j) determine Compound Criteria;

(k) determine whether criteria have been met (Compound Criteria, Lead Series Identified Criteria, CLS Criteria, CCS Criteria);

(l) select all Backup Compounds;

(m) maintain a list of all Collaboration Compounds, including Backup Compounds;

(n) determine and maintain a list of all Collaboration Targets in order of advancement of status;

(o) review the research efforts of the Parties;

(p) identify appropriate resources necessary to conduct the Research Plans (including recommending whether Roche's chemistry resources should be included in Lead Optimization, *e.g.* in order to increase the number of parallel activities on multiple series in a Research Plan or for multiple Research Plans or to address specific optimization questions in Lead Optimization);

(q) determine when and where to perform any pre-formulation activities, salt screening, and polymorph screening in accordance with CLS Criteria and CCS Criteria;

(r) align on the drug substance and drug product specifications for the batches used for the GLP Tox Studies;

(s) align on the drug substance and drug product strategy, including stability program, and its execution for the drug product used for the GLP Tox Studies and Phase I Studies;

(t) determine whether drug substance and/or drug product batches for Phase I Studies shall be made at a CRO acceptable to Roche or by Roche itself using its facilities;

(u) oversee manufacture and release of drug substance and drug product batches to be used for Phase I Studies;

(v) review the GLP Tox Study protocol *e.g.* with respect to study design, dose selection or GLP exposure measurements;

(w) determine whether drug substance and/or drug product batches for GLP-Tox Studies shall be made at a CRO acceptable to Roche or by Roche itself using its facilities;

(x) oversee manufacture and release of drug substance and drug product batches to be used in GLP-Tox Studies;

(y) establish, set expectations and mandates for, oversee and disband JOTs;

(z) recommend action items to each Party's respective decision making bodies; and

(aa) attempt to resolve any disputes on an informal basis.

The JRC shall have all responsibility and authority regarding overseeing activities under the Research Plans, other than as expressly set forth in this Agreement. The JRC shall have no responsibility and authority other than that expressly set forth in this Section, unless mutually agreed by the Parties.

8.5 Responsibilities of the JDC

The JDC shall have the responsibility and authority to:

(a) develop and approve initial Phase I Plans and any revisions thereto;

(b) approve Development Plans and any revisions thereto;

(c) review and oversee the execution of the Phase I Plans and Development Plans;

(d) oversee the initial Phase I Studies for Products prior to Roche's exercise of an Option Right;

(e) determine and maintain a list of all Collaboration Targets in order of advancement of status;

(f) designate the MTD for each Product;

(g) designate the cut-off date for the data resulting from the Phase I Studies conducted by the Parties for each Collaboration Target in accordance with Section 3.1.3;

(h) oversee development of Licensed Products after Roche's exercise of an Option Right;

(i) establish timelines and criteria for development decision points;

(j) determine whether development criteria have been met;

(k) review the development efforts of the Parties, including for Companion Diagnostics;

(l) identify appropriate resources necessary to conduct the Phase I Plans and Development Plans;

(m) review and approve Phase I Development Costs and Development Costs in accordance with the allocations set forth in Sections 12.5 and 12.6;

(n) depending on the Clinical Studies following Phase I Studies, devise at the latest upon start of Phase I Studies the appropriate CMC-strategy for drug substance and drug product to be used in either Phase II Studies or Phase III Studies and oversee its execution (with Roche deciding where such manufacture of Phase II and Phase III Study supply, both for drug substance and drug product, should occur (including prior to Roche exercising its Option Right);

(o) define the drug substance and drug product specifications for the batches used for Phase I Studies and any batches made prior to Roche exercising its Option Right for the subsequent Phase II Studies and/or Phase III Studies after Option Right exercise;

(p) determine whether a […***…] or should be re-designated pursuant to Section 5.1.3;

(q) establish, set expectations and mandates for, oversee and disband JOTs;

(r) recommend action items to each Party's respective decision making bodies; and

(s) attempt to resolve any disputes on an informal basis.

The JDC shall have all responsibility and authority regarding the clinical development of Products and Licensed Products, other than as expressly set forth in this Agreement. The JDC shall have no responsibility and authority other than that expressly set forth in this Section, unless mutually agreed by the Parties.

8.6 Meetings

The Chairperson or his/her delegate will be responsible for sending invitations and agendas for all JRC or JDC, as applicable, meetings to all Members of each committee at least ten (10) days before the next scheduled meeting of the JRC or JDC, as applicable. During the Research and Development Term, the venue for the meetings shall be agreed by the JRC or JDC, as applicable. The JRC or JDC, as applicable shall hold meetings at least once per Calendar Quarter, either in person or by tele-/video-conference, and in any case as frequently as the Members of the JRC or JDC, as applicable may agree shall be necessary, but not more than six (6) times each Calendar Year. After the Research and Development Term the JDC shall meet once per Calendar Quarter, provided that if there is no on-going development for either Program 2 or Program 4, the JDC shall meet twice per Calendar Year. The Alliance Director of each Party may attend the JRC and/or JDC meetings as a permanent participant.

8.7 Minutes

The Chairperson of a committee will be responsible for designating a Member to record in reasonable detail and circulate draft minutes of meetings to all members of the committee for comment and review within twenty (20) days after the relevant meeting. The Members of the committee shall have ten (10) days to provide comments. The Party preparing the minutes shall incorporate timely received comments and distribute finalized minutes to all Members of the committee within thirty-five (35) days of the relevant meeting. The Chairperson approves the final version of the minutes before its distribution.

8.8 Decisions

8.8.1 Decision Making Authority

The JRC shall decide matters within its responsibilities set forth in Section 8.4. The JDC shall decide matters within its responsibilities set forth in Section 8.5.

8.8.2 Consensus; Good Faith

In general, the Parties intend to govern this collaboration through empowered joint committees that operate by consensus while making its decisions with speed. The Parties recognize that there may be exceptions to this principle where reaching consensus is not possible and one Party will need to make a final decision on a given matter in order to preserve the importance of progressing with speed. With this in mind, the Members of a committee shall act in good faith to cooperate with one another and seek agreement with respect to issues to be decided by that committee. The Parties shall endeavor to make decisions by consensus.

8.8.3 Pre-Exercise of Option Right Escalation

If the JRC or JDC is unable to decide a matter arising before Roche's exercise of its Option Right by consensus, then such matter shall be referred to the Chief Executive Officer of BPM or equivalent position or his/her nominee and the Head of Roche Partnering or equivalent position or his/her nominee for resolution, who together shall use reasonable and good faith efforts to reach a decision by consensus within thirty (30) days after the date such matter is referred to them. If the Parties still fail to reach a decision within such thirty (30) days, then the final decision shall be BPM's in the case of a decision by the JRC and Roche's in the case of a decision by the JDC, which shall be exercised in good faith. Any such decision shall constitute a decision of the JRC or JDC, as applicable. Notwithstanding the above, (a) decisions that impact the payment of fees under Section 12.2, the use of Roche facilities or resources pursuant to Section 4.1.5 or Section 8.4 or the use of each Party's resources outside of the scope of this Agreement shall require consensus and shall not be subject to this Section 8.8.3, (b) Roche shall have the final decision-making authority with respect to the design of each Phase I Plan, (c) Roche shall have the final decision-making authority with respect to the conduct of any Clinical Studies of a Product or Licensed Product in combination with either a Roche Marketed Product or a Roche Clinical Compound that Roche elects to conduct, and (d) BPM shall have the final decision-making authority with respect to the conduct of all other Phase I Clinical Studies.

8.9 Information Exchange

BPM and Roche shall exchange the information in relation to its activities under this Agreement through the JRC or JDC, as applicable, and BPM and Roche may ask reasonable questions in relation to the above information and offer advice in relation thereto and each Party shall give due consideration to the other Party's input. Notwithstanding the above, a committee may determine other routes of information exchange.

8.10 Alliance Director

Each Party shall appoint one (1) person to be its point of contact with responsibility for facilitating communication and collaboration between the Parties (each, an "**Alliance Director**"). The Alliance Directors shall be permanent participants of committee meetings (but not Members of the committees) and may attend JOT meetings as appropriate. The Alliance Directors shall facilitate resolution of potential and pending issues and potential disputes to enable the committees to reach consensus and avert escalation of such issues or potential disputes.

8.11 Limitations of Authority
No committee shall have any authority to amend or waive any terms of this Agreement, nor shall any committee have the authority to determine whether a Party is in breach of this Agreement.

8.12 Expenses
Each Party shall be responsible for its own expenses including travel and accommodation costs incurred in connection with the JRC, JDC and any other committees established under this Agreement.

8.13 Lifetime
The JRC shall exist for so long as work is being conducted under a Research Plan in accordance with this Agreement. The JDC shall exist for so long as a Product or Licensed Product remains in clinical development under a Development Plan. The lifetime of any other committee established pursuant to Section 8.14 will be agreed to by the Parties at the time of inception.

8.14 Other Committees
The Parties may mutually agree to establish such additional joint committees as deemed necessary to achieve the objectives and intent of this Agreement. Any additional committees shall be required to consist at all times of an equal number of BPM Members and Roche Members.

9. Manufacture and Supply

9.1 Manufacturing Right
Prior to Roche's exercise of its Option Right for a Collaboration Target, the JRC will determine which Party has responsibility for the manufacture of Collaboration Compounds and Products, subject to the oversight of the JRC, in accordance with the applicable Research Plan and Phase I Plan for such Collaboration Target. If requested by a Party, the other terms under which a Party will manufacture and supply Collaboration Compounds and Products to the other Party will be set forth in one or more manufacturing and supply agreements to be entered into between the Parties (each a "**Supply Agreement**"). Such Supply Agreements will contain customary terms and conditions, including quality and supply failure remedies, and otherwise be consistent with this Agreement and Roche quality standards. If the Parties cannot agree to the terms of a Supply Agreement within ninety (90) days of initiation of discussions, such matter will be decided by the Expert Committee in accordance with the terms and conditions set forth in Section 12.9.4, *mutatis mutandis*.

After Roche's exercise of its Option Right for a Collaboration Target, subject to the oversight of the JDC, Roche shall have the right to manufacture all Licensed Products for such Collaboration Target throughout the Territory, subject to this Section 9.1. For Licensed Products in the BPM Territory pursuant to Program 2 and Program 4, (i) Roche, at its option, can elect to transfer the manufacturing process to BPM (or a CRO that is reasonably acceptable to Roche) whereby BPM (or such CRO) would then have responsibility to manufacture its own supply of such Licensed Product at its own costs; or (ii) BPM, at its option, can elect to use a CRO that is acceptable to Roche to perform such manufacturing activities on behalf of BPM in the BPM Territory if such CRO provides a price that is at least […***…] lower than the per unit cost for a Licensed Product than offered by Roche taking into account projected supply volume discounts. The costs of any such manufacturing process transfer pursuant to clause (i) of the preceding sentence shall be shared equally by the Parties, and pursuant to clause (ii) of the preceding sentence shall be borne solely by BPM. For Licensed Products supplied to BPM by Roche in the United States pursuant to Program 2 and Program 4, Roche shall supply such Licensed Products for clinical supply at

[…***…] and for commercial supply at […***…][…***…]. The other terms under which Roche will manufacture and supply Licensed Products to BPM will be set forth in one or more Supply Agreements. Such Supply Agreements will contain customary terms and conditions, including quality and supply failure remedies, and otherwise be consistent with this Agreement and Roche quality standards. If the Parties cannot agree to the terms of a Supply Agreement within ninety (90) days of initiation of discussions, such matter will be decided by the Expert Committee in accordance with the terms and conditions set forth in Section 12.9.4, *mutatis mutandis*. At BPM's request, the Parties will include provisions in such Supply Agreements relating to the manufacture and supply of Companion Diagnostics or Roche Marketed Products for use with Licensed Products for Program 2 and Program 4. Either Party shall have the right to manufacture at risk, or have a CRO approved by Roche manufacture at risk, a Product prior to Roche exercising its Option Right for a Collaboration Target. If Roche exercises its Option Right for a Collaboration Target and Roche accepts the quality of a batch of the applicable Product, then the cost to manufacture such batch shall be a Development Cost. If Roche does not exercise its Option Right for a Collaboration Target, then the cost to manufacture such batch of the applicable Product shall be borne by the Party that manufactured or had manufactured the batch.

9.2 Technology Transfer

Roche shall have the right, but not obligation, to request a Technology Transfer (as defined below) at any time however no later than […***…] after exercising its Option Right for a given Program. Within […***…] upon such request of Roche, BPM shall complete the transfer of all its Know-How within the BPM IP relating to the manufacturing of the Collaboration Compounds, Products and Licensed Products to Roche and/or one or more CROs designated by and contracting directly with Roche with the goal of enabling Roche and/or its designated CRO to manufacture Collaboration Compounds, Products and Licensed Products ("**Technology Transfer**"). The Parties will agree in good faith on a Technology Transfer protocol defining the scope and conditions of transfer. The cost of such Technology Transfer shall be shared equally.

BPM shall maintain in full force and effect all agreements relating to the manufacture of Collaboration Compounds and Products with Third Parties in effect as of the date of Roche's request of transfer so that Roche has uninterrupted access to clinical supply prior to and during any manufacturing transition from BPM to Roche.

9.3 Inspection Right

Roche shall have the right, at any time prior to exercising its Option Right to conduct an inspection (including a cGMP audit) of BPM's manufacturing sites at BPM or at the CRO's facility, as applicable and, with respect to CROs, subject to confidentiality obligations. BPM shall cooperate in good faith in all respects to allow Roche to expediently complete its due diligence.

9.4 Review of Draft CRO Agreements

Prior to entering into any new CRO agreements for manufacturing, including supply and quality agreements, related to Collaboration Compounds or Products, BPM shall provide Roche with any draft agreements with CROs for Roche to review and comment. BPM shall consider in good faith all reasonable comments of Roche.

10. Regulatory

10.1 Responsibility

Prior to Roche's exercise of its Option Right for a Collaboration Target, (a) BPM shall own and file all INDs and hold the regulatory responsibility under each Phase I Plan for each Collaboration Target that is designated as a […***…], and for each […***…] not involving a Roche Marketed Product or a Roche Clinical Compound and (b) Roche shall own and file all INDs and hold the

regulatory responsibility under each Phase I Plan for each Collaboration Target that is designated as a […***…] that involves a Roche Marketed Product or a Roche Clinical Compound; provided in each case ((a) and (b)) that a Party shall only file an IND pursuant to the JDC deciding to do so. The responsible Party shall be responsible for pursuing, compiling and submitting the IND and all related Filing documentation, and for interacting with Regulatory Authorities, for such Collaboration Target; provided that the other Party shall have the right to review and comment on any material Filing prior to submission to the relevant Regulatory Authority, and, if the other Party exercises such right, the responsible Party will reasonably consider to consult with and address any concerns raised by the other Party in connection with such activities. Additionally, promptly following submission of any material Filing, the responsible Party shall provide the other Party with the technical format data, the case file and any regulatory dossiers containing information necessary or useful to the responsible Party in connection with its Filings for all Licensed Products including, but not limited to Clinical Study dossiers, regulatory correspondence, Regulatory Authority meeting minutes and study reports from completed non-clinical and Clinical Studies in a format that is agreed to by the Parties. The responsible Party or its Affiliates shall own and file in their discretion all Filings and INDs for such Collaboration Target in the Field in all countries. For all completed study reports, the responsible Party shall provide necessary documentation to confirm data reliability, as required by Article 43 of the Japanese Pharmaceutical Affairs Law Enforcement Regulations and related notifications, including, but not limited to original author signatures, raw data lists, GLP and GCP compliance information. The responsible Party shall supply the other Party with a copy of all material communications related to such Collaboration Target in the Field to or from the Regulatory Authorities for all Major Countries. Upon request of the other Party, the responsible Party shall supply the other Party with a copy of all such communications to or from the Regulatory Authorities for all Major Countries.

After Roche's exercise of its Option Right for a Collaboration Target, subject to Sections 7.2, 12.5 and 12.6, Roche shall be solely responsible for all regulatory affairs related to Licensed Products in the Field in the Roche Territory including the preparation and Filings, as well as any or all Regulatory Approvals required to Exploit Licensed Products in the Field in the Roche Territory. Roche shall be responsible for pursuing, compiling and submitting all Filing documentation, and for interacting with Regulatory Authorities, for all Licensed Products in all countries in the Roche Territory; provided that for Program 2 and Program 4, BPM shall have the right to review and comment on any material Filing for Program 2 or Program 4 prior to submission to the relevant Regulatory Authority, and, if BPM exercises such right, Roche will reasonably consider to consult with and address any concerns raised by BPM in connection with such activities. Roche will use Commercially Reasonable Efforts, to the extent reasonably practicable, to permit BPM to have, at BPM's expense, one (1) mutually acceptable representative of BPM attend, solely as a non-participating observer, material, substantive meetings, including pre-IND and end of Phase II Study meetings, with the Regulatory Authorities pertaining to all Licensed Products in Program 2 or Program 4. Additionally, promptly following submission of any material Filing for Program 2 or Program 4, Roche shall provide BPM with the technical format data, case file and any regulatory dossiers containing information necessary or useful to BPM in connection with its Filings for all Licensed Products including, but not limited to Clinical Study dossiers, regulatory correspondence, Regulatory Authority meeting minutes and study reports from completed non-clinical and Clinical Studies in a format that is agreed to by the Parties. Roche or its Affiliates shall own and file in their discretion all Filings and Regulatory Approvals for all Licensed Products in the Field in all countries of the Roche Territory. For all completed study reports, BPM shall provide necessary documentation to confirm data reliability, as required by Article 43 of the Japanese Pharmaceutical Affairs Law Enforcement Regulations and related notifications, including, but not limited to original author signatures, raw data lists, GLP and GCP compliance information. Roche shall supply BPM with a copy of all material communications related to Licensed Products in the

Field to or from the Regulatory Authorities for all Major Countries in the Roche Territory. Upon request of BPM, Roche shall supply BPM with a copy of any communications to or from the Regulatory Authorities for all Major Countries in the Roche Territory. Such terms shall apply *mutatis mutandis* with respect to Licensed Products for Program 2 and Program 4 in the BPM Territory (i.e., BPM shall have all such rights and obligations in lieu of Roche), other than Combination Products in Program 2 or Program 4 that include a Roche Marketed Product, in which case Roche shall be solely responsible for all regulatory affairs worldwide related to such Combination Product in Program 2 or Program 4 as set forth above. For Combination Products in Program 2 or Program 4 that include a Roche Marketed Product, Roche will provide BPM with reasonable advance notice of all substantive meetings with the Regulatory Authorities pertaining to each such Combination Product, or with as much advance notice as practicable under the circumstances.

Prior to Roche's starting Clinical Study enrollment activities for Licensed Products, BPM shall transfer to Roche all relevant historical clinical safety data. Safety information on serious adverse events shall be provided in CIOMS format and safety information on non-serious adverse events shall be provided in English Line Listing format.

At a date to be defined by Roche after exercise of an Option Right for a Collaboration Target, BPM shall transfer and assign to Roche all INDs with respect to Products for such Collaboration Target in the Field in its possession and control, except for filings with a US Regulatory Authority in the case of Program 2 and Program 4. Prior to the transfer, BPM shall provide to Roche copies of all material correspondence with the Regulatory Authorities with respect to such Products for such Collaboration Target. In addition, at a date defined by Roche after exercise of an Option Right for a Collaboration Target, BPM shall transfer and assign to Roche any regulatory dossiers containing information necessary or useful to Roche in connection with its Filings for all Licensed Products for such Collaboration Target in the Field in the Roche Territory, including, but not limited to Clinical Study dossiers, regulatory correspondence, Regulatory Authority meeting minutes and study reports from completed non-clinical and Clinical Studies. For all completed study reports for Licensed Products for such Collaboration Target in the Roche Territory, BPM shall provide to Roche necessary documentation to confirm data reliability, as required by Article 43 of the Japanese Pharmaceutical Affairs Law Enforcement Regulations and related notifications, including original author signatures, raw data lists, GLP and GCP compliance information. All documentation is to be provided in English.

10.2 Reporting Adverse Events

10.2.1 Report

The Parties agree to inform each other about serious adverse events occurring or having occurred in connection with the use of a Product or Licensed Product that comes into its knowledge. The Parties agree to handle data and information about adverse events occurring or having occurred in connection with the use of a Product or Licensed Product according to the guidelines in the respective territory, for example, those recited in the FDCA and the similar requirements of the Canadian or European regulatory authorities, requirements of the Regulatory Authority and/or requirements of any other relevant Regulatory Authority in the Territory.

BPM shall be solely responsible for reporting adverse drug experiences to Regulatory Authorities in the BPM Territory in the case of Program 2 and Program 4. In all other cases, Roche, as the party owning the Filings and Regulatory Approvals shall be solely responsible for reporting adverse drug experiences to the regulatory authorities in the Roche Territory.

10.2.2 Pharmacovigilance Agreement

The Parties mutually agree to execute a separate Pharmacovigilance Agreement as deemed applicable by the Parties specifying the procedures and timeframes for compliance with Applicable Law pertaining to safety reporting of each Product and Licensed Product and their related activities.

11. Commercialization

11.1 Responsibility

Roche, at its own expense, shall have sole responsibility and decision making authority for the marketing, promotion, sale and distribution of Licensed Products in the Roche Territory and shall book all Sales in the Roche Territory. For Program 2 and Program 4, BPM, at its own expense, shall have sole responsibility and decision making authority for the marketing, promotion, sale and distribution of Licensed Products in the BPM Territory and shall book all Sales in the BPM Territory subject to Section 12.9.4.

11.2 Updates

Upon request of the Party not selling a Licensed Product in a particular region (the "**Non-Selling Party**"), the Party selling the Licensed Product in the particular regions ("**Selling Party**") shall update the Non-Selling Party regarding the commercialization of the Licensed Product (i) in the Roche Territory in the Field by Roche, its Affiliates and Sublicensees, in the case where Roche is the Selling Party, or (ii) in the BPM Territory in the Field by BPM, its Affiliates and Sublicensees, in the case where BPM is the Selling Party. By November 15 of each Calendar Year, the Selling Party also shall provide a non-binding forecast of its annual sales of Licensed Products to the Non-Selling Party for the subsequent Calendar Year. If the Non-Selling Party requests an update, the Selling Party shall provide a high level summary, in writing and/or through a meeting (face to face/ tele-presence/videoconference or telephone). The Non-Selling Party shall not request an update more frequently than once per Calendar Year. In addition, upon reasonable request by the Non-Selling Party in connection with financing, partnering, other strategic transaction or Non-Selling Party's reporting obligations under securities laws, the Selling Party shall provide a high level summary regarding the commercialization of the Licensed Product in the Roche Territory or BPM Territory, as applicable, in the Field by the Selling Party, its Affiliates and Sublicensees.

11.3 Recalls, Market Withdrawals or Corrective Actions.

In the event that any Regulatory Authority issues or requests a recall or takes a similar action in connection with a Licensed Product in the Field in the Territory, or in the event either Party determines that an event, incident or circumstance has occurred that may result in the need for a recall or market withdrawal of a Licensed Product in the Field in its Territory, the Party notified of such recall or similar action, or the Party that desires such recall or similar action, will as promptly as possible, notify the other Party by telephone or e-mail. Each Party, in consultation with the other Party, will decide whether to conduct a recall of a Licensed Product in its own Territory and the manner in which any such recall will be conducted (except in the case of a government mandated recall, when such Party may act without such advance notice but will notify the other Party as soon as possible thereafter). Except as may otherwise be agreed to by the Parties, each Party will bear the expense of any such recall in its own Territory. Each Party will make available all of its pertinent records that may be reasonably requested by the other Party in order for a Party to effect a recall of a Licensed Product in its Territory. The Parties' rights and obligations under this Section 11.3 will be subject to the terms of any Supply Agreement(s) and any Pharmacovigilance Agreement entered into between the Parties. In the event of a conflict between the provisions of any such Supply Agreements and Pharmacovigilance Agreement and

this Section 11.3, the provisions of such Supply Agreement and Pharmacovigilance Agreement will govern.

12. Payment

12.1 Initiation Payment

Within […***…] after the Effective Date and receipt of an invoice from BPM, Roche shall pay to BPM forty-five million US dollars (US$45,000,000). Such payment will be non-refundable, non-creditable and not subject to set-off.

12.2 Pre-Option Exercise Fees

Roche shall pay to BPM up to a total of […***…] US dollars […***…], upon the achievement of milestone events with respect to Products. The event payments under this Section 12.2 shall be paid by Roche according to the following schedule of events.

Event	US Dollars (in millions)
[…***…]	[…***…]
[…***…]	[…***…]
[…***…] (per each Collaboration Target, up to […***…] in total payments for all five Collaboration Targets)	[…***…]
[…***…] (per each Collaboration Target, up to […***…] in total payments for all five Collaboration Targets)	[…***…]
[…***…] (per each Collaboration Target, up to […***…] in total payments for all five Collaboration Targets)	[…***…]

Any such payments shall be paid by Roche to BPM within […***…] after the occurrence of the applicable event and receipt of an invoice from BPM. Each payment will be non-refundable, non-creditable and not subject to set-off.

12.3 Costs for Work Conducted Under Research Plans

Except as otherwise provided in this Agreement, each Party shall be responsible for its own costs incurred in the conduct of each Research Plan.

12.4 Option Exercise Fee

If Roche exercises its Option Right with respect to a Collaboration Target, then Roche shall pay to BPM a fee ("**Option Exercise Fee**") to exercise such Option Right as follows:

Exercise of Option Right	US Dollars (in millions)
Program 1	[…***…]
Program 2	[…***…]
Program 3	[…***…]
Program 4	[…***…]
Program 5	[…***…]

Subject to the provisions of Sections 3.1.3 and 3.1.4, any such payments shall be paid by Roche to BPM […***…] after the occurrence of the applicable event and receipt of an invoice from BPM. Each Option Exercise Fee will be non-refundable, non-creditable and not subject to set-off.

12.5 Phase I Development Cost Share

All Phase I Development Costs will be shared […***…] by BPM and […***…] by Roche; provided that BPM shall only be responsible for up to a maximum of […***…] of Phase I Development Costs for all Phase I Studies conducted pursuant to a Phase I Plan for each Collaboration Target (it being understood that such […***…] cap shall apply on a Collaboration Target-by-Collaboration Target basis and thus to all Products (including any Backup Compounds) for any such Collaboration Target), and any Phase I Development Costs in excess of such […***…] cap for a Collaboration Target shall be at Roche's sole expense; provided that if (a) there is a failure of a Product in a Phase I Study prior to the designation of the MTD for such Product for a Collaboration Target and (b) the Parties conduct a Phase I Study with a Backup Compound for a Collaboration Target, then the cap for such Collaboration Target shall be increased to a maximum of […***…] (it being understood that such […***…] cap shall apply on a Collaboration Target-by-Collaboration Target basis and thus to all Products (including any Backup Compounds) for any such Collaboration Target), and any Phase I Development Costs in excess of such […***…] cap for a Collaboration Target shall be at Roche's sole expense. For clarity, the allocation of Phase I Development Costs set forth in this Section 12.5 will apply regardless of whether Roche has exercised its Option Right for a Collaboration Target. Commencing the first Calendar Quarter immediately following initiation of the Phase I Program, within fifteen (15) days after the end of each Calendar Quarter during which either Party incurs any Phase I Development Costs, both Parties shall submit to a finance officer designated by BPM and a finance officer designated by Roche (the "**Finance Officers**") a report setting forth a good faith estimate of the Phase I Development Costs it incurred in such Calendar Quarter, as detailed in the Phase I Plans, as approved by the JDC. Within forty-five (45) days following the end of such Calendar Quarter, each Party shall update such report to reflect the final amount of Phase I Development Costs incurred by such Party; provided that if there are any Phase I Development Costs incurred in such Calendar Quarter that a Party is unable to timely include in such financial report, then such amount shall be included and reconciled in the financial report in a future Calendar Quarter. Each such report shall specify in reasonable detail costs incurred and shall include reasonably detailed supporting information. Within fifteen (15) days after receipt of such reports, the Finance Officers shall confer and agree in writing on whether a reconciliation payment is due from one Party to the other Party, and if so, the amount of such reconciliation payment, so that the Parties share Phase I Development Costs in accordance with this Section 12.5. The Party required to pay such reconciliation payment shall make such payment to the other Party within sixty (60) days after the end of each Calendar Quarter; provided, however, that in the event of any disagreement with respect to the calculation of such reconciliation payment, any undisputed portion of such reconciliation payment shall be paid in accordance with the foregoing timetable and the remaining, disputed portion shall be paid within ten (10) Business Days after the date on which the Parties, using good faith efforts, resolve the dispute.

12.6 Development Cost Share

All Development Costs for each Program will be shared by BPM and Roche as summarized in the following table.

Exercise of Option Right	Development Cost Share
Program 1, Program 3, and Program 5	100% paid by Roche
Program 2 and Program 4	[…***…] (Roche: BPM) […***…] (Roche:BPM) […***…]

Notwithstanding the foregoing, Developments Costs after the preparation of the initial regulatory dossier for a Licensed Product for Program 2 and Program 4, costs related to preparing and filing subsequent Filings with respect to such Licensed Product (including associated filing fees, translation expenses, and legal and other professional service fees) will be the responsibility of each Party in its respective Territory with respect to such Licensed Products. After receipt of Regulatory Approval for such Licensed Product in a country, all costs and expenses incurred will be the responsibility of each Party in its respective Territory with respect to such Licensed Product.

For clarity, the allocation of Development Costs set forth in this Section 12.6 will apply regardless of whether Roche has exercised its Option Right for a Collaboration Target.

Commencing the first Calendar Quarter immediately following a Party incurring Development Costs under this Agreement and continuing thereafter so long as a Party incurs Development Costs under this Agreement for which reconciliation will be provided, within fifteen (15) days after the end of each Calendar Quarter during which either Party incurs any Development Costs, each Party shall submit to a finance designee of the other Party a report setting forth a good faith estimate of the Development Costs it incurred in such Calendar Quarter for such Collaboration Target, as detailed in the Development Plan, as approved by the JDC. Within forty-five (45) days following the end of such Calendar Quarter, each Party shall update such report to reflect the final amount of Development Costs incurred by such Party; provided that if there are any Development Costs incurred in such Calendar Quarter that a Party is unable to timely include in such financial report, then such amount shall be included and reconciled in the financial report in a future Calendar Quarter. Each such report shall specify in reasonable detail costs incurred and shall include reasonably detailed supporting information. Within fifteen (15) days after receipt of such reports, the finance designees from both Parties shall confer and agree in writing on whether a reconciliation payment is due from one Party to the other Party, and if so, the amount of such reconciliation payment, so that the Parties share Development Costs in accordance with this Section 12.6. The Party required to pay such reconciliation payment shall make such payment to the other Party within sixty (60) days after the end of each Calendar Quarter; provided, however, that in the event of any disagreement with respect to the calculation of such reconciliation payment, any undisputed portion of such reconciliation payment shall be paid in accordance with the foregoing timetable and the remaining, disputed portion shall be paid within ten (10) Business Days after the date on which the Parties, using good faith efforts, resolve the dispute.

12.7 Development Event Payments

For each of Program 1, Program 3, and Program 5, Roche shall pay BPM the following one-time milestone event payments for the first achievement of each of the corresponding milestone events (each, a "**Development Event**") by the first Licensed Product for such Program to achieve such event:

Development Event for First Licensed Product	US Dollars (in millions)
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]

[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]
Total	[…***…]

Notwithstanding the foregoing, for the purposes of construing the payments specified in the above table, if a Development Event is skipped (i.e., a later Development Event payment is payable before an earlier Development Event payment), or if Regulatory Approval is achieved in any jurisdiction with respect to a Licensed Product for a Collaboration Target without all of the preceding Development Event payments applicable to a Licensed Product having been achieved, then the skipped Development Event(s) will be deemed to have been achieved upon the achievement of the subsequent Development Event(s) or upon Regulatory Approval as applicable. Upon the achievement of a Development Event, Roche shall timely notify BPM and Development Event payments shall be paid by Roche to BPM […***…] from occurrence of the applicable event and receipt of an invoice from BPM. Subject to Section 7.3 and Section 12.9.6, each Development Event Payment will be non-refundable, non-creditable and not subject to set-off with respect to undisputed amounts.

12.8 Sales Based Event

For the first Licensed Product pursuant to each of Program 1, Program 3, and Program 5, Roche shall pay BPM the following one-time milestone event payment for the first achievement of such milestone event by the first Licensed Product for such Program to achieve such event:

Calendar Year Net Sales Threshold	**US Dollars (in millions)**
Calendar Year Net Sales in the Territory of a Licensed Product exceed […***…]	[…***…]

Each sales milestone payment shall be deemed earned upon achievement of the corresponding sales milestone, and Roche shall make the corresponding sales milestone payment within […***…] after the end of the Calendar Year in which the sales milestone threshold was achieved. Subject to Section 7.3, each sales milestone payment will be non-refundable, non-creditable and not subject to set-off with respect to undisputed amounts.

12.9 Royalty Payments

12.9.1 Royalty Term

Royalties shall be payable by the Selling Party on Net Sales or BPM Net Sales, as applicable, of Licensed Products until the expiry of the Royalty Term. Thereafter, on a Licensed Product-by-Licensed Product and country-by-country basis, the licenses granted shall be fully paid up, irrevocable and royalty-free.

12.9.2 Royalty Rates on Licensed Products for the Program 1, Program 3, and Program 5

Roche shall, on a Licensed Product-by-Licensed Product basis for each Licensed Product for Program 1, Program 3 or Program 5, pay to BPM royalties on Calendar Year Net Sales of a given Licensed Product in the Roche Territory as follows:

Portion of Calendar Year Net Sales of a Licensed Product:	**Rate:**
Up to […***…]	[…***…]
More than […***…] and up to […***…]	[…***…]
More than […***…] and up to […***…]	[…***…]
More than […***…]	[…***…]

For example, if worldwide Net Sales of a Licensed Product for Program 1 for a given Calendar Year are […***…], then royalties payable to BPM on such Net Sales of such Licensed Product for that Calendar Year shall equal […***…] calculated as follows:

[…***…]

For the purpose of calculating royalties payable on a Licensed Product for Program 1, Program 3 or Program 5, Calendar Year Net Sales and the royalty rates shall be subject to the adjustments under Sections 12.9.4 - 12.9.6 below, as applicable.

12.9.3 Royalty Rates on Licensed Products for Program 2 and Program 4

Roche shall, on a Licensed Product-by-Licensed Product basis for each Licensed Product for Program 2 or Program 4, pay to BPM royalties on Calendar Year Net Sales of a given Licensed Product in the Roche Territory as follows:

Portion of Calendar Year Net Sales of a Licensed Product:	**Rate:**
Up to […***…]	[…***…]
More than […***…] and up to […***…]	[…***…]
More than […***…] and up to […***…]	[…***…]
More than […***…]	[…***…]

Subject to Section 7.3, BPM shall, on a Licensed Product-by-Licensed Product basis for each Licensed Product for Program 2 and Program 4, pay to Roche royalties on Calendar Year BPM Net Sales of a given Licensed Product in the BPM Territory as follows:

Portion of Calendar Year BPM Net Sales of a Licensed Product:	**Rate:**
Up to […***…]	[…***…]
More than […***…] and up to […***…]	[…***…]
More than […***…] and up to […***…]	[…***…]
More than […***…]	[…***…]

For the purpose of calculating royalties of a Licensed Product, Calendar Year Net Sales or BPM Net Sales, as applicable, and the royalty rates shall be subject to the adjustments under Sections 12.9.4 - 12.9.6 below, as applicable.

12.9.4 Combination Product

If the Selling Party or its Affiliates intend to sell a Combination Product, then the Parties shall meet approximately one (1) year prior to the anticipated First Commercial Sale of such Combination Product in the Territory to negotiate in good faith and agree to an appropriate adjustment to Net Sales to reflect the relative commercial value contributed by the components of the Combination Product (the "**Relative Commercial Value**"). If, after such good faith negotiations not to exceed ninety (90) days, the Parties cannot agree to an appropriate adjustment, the dispute shall be initially referred to the executive officers of the Parties in accordance with Section 23.2. Should the Parties fail to agree within sixty (60) days of such referral, then the Relative Commercial Value shall be determined by the Expert Committee under the procedures set forth below.

If the Parties are unable to agree on the Relative Commercial Value, then Roche will select one (1) individual who would qualify as an Expert, BPM will select (1) individual who would qualify as an Expert, and those two (2) individuals shall select one (1) individual who would qualify as an Expert and who shall be chairman of a committee of the three Experts (the "**Expert Committee**"), each with a single deciding vote. The Expert Committee will promptly hold a meeting to review the issue under review, at which it will consider memoranda submitted by each Party at least fifteen (15) days before the meeting, as well as reasonable presentations that each Party may present at the meeting. The determination of the Expert Committee as to the issue under review will be binding on both Parties. The Parties will share equally in the costs of the Expert Committee. Unless otherwise agreed to by the Parties, the Expert Committee may not decide on issues outside the scope mandated under terms of this Agreement. If the Expert Committee is unable to come to a determination within sixty (60) days of such meeting, the matter will be decided pursuant to Section 23.3.

[…***…]

12.9.5 Royalty Reductions

If royalties on a Licensed Product are payable only on the basis of clause (i) of the Royalty Term definition in Section 1.118 in a country, then the royalties in such country payable on Net Sales or BPM Net Sales, as applicable, for such Licensed Product shall be reduced by […***…]. The royalty rate tier applicable to the Calendar Year Net Sales or BPM Net Sales, as applicable, of such Licensed Product in such country will be applied *pro rata* on a Calendar Quarter-by-Calendar Quarter basis, with reference to the aggregate worldwide Calendar Year Net Sales or BPM Net Sales, as applicable, for each Licensed Product.

Notwithstanding the foregoing, in addition, on a country-by-country basis, upon the first entry in a country of a Generic Product with respect to a Licensed Product, the applicable royalty rate for Calendar Year Net Sales or BPM Net Sales, as applicable, in such country for such Licensed Product shall be reduced as follows:

a) If at any time after entry of a Generic Product in a country there has been a decline of the quarterly Net Sales of the applicable Licensed Product in such country greater than […***…] of the average level of the quarterly Net Sales of such Licensed Product achieved in the […***…] consecutive Calendar Quarters immediately prior to such entry, then the royalty payments due to BPM or Roche, as applicable, for such Licensed Product in such country shall be reduced by […***…] for the remainder of the Royalty Term.

b) If at any time after entry of a Generic Product in a country there has been a decline of the quarterly Net Sales of the applicable Licensed Product in such country greater than […***…] of the average level of the quarterly Net Sales of such Licensed Product achieved in the […***…] consecutive Calendar Quarters immediately prior to such entry, then the royalty payments due to BPM or Roche, as applicable, for such Licensed Product in such country shall be reduced by […***…] for the remainder of the Royalty Term.

12.9.6 Third Party Payments

If Roche (or BPM in the US in the case of Program 2 or Program 4) is obligated to remit payments to a Third Party in relation to Third Party issued patents that would allegedly be infringed by the marketing of a Licensed Product, then Roche (or BPM) shall be permitted to offset up to […***…] of any payments paid to such Third Party against any royalty payments and Development Event payments after the first NDA Filing Development Event payment for such Licensed Product otherwise payable by Roche to BPM (or by BPM to Roche in the case of Program 2 or Program 4) for such Licensed Product in the applicable Calendar Quarter. Roche's ability to make such deductions to Development Event payments pursuant to Section 12.7 shall be limited to […***…] of any individual Development Event payment after the first NDA Filing Development Event payment for such Licensed Product. For clarity, amounts paid by Roche to BPM (or by BPM to Roche in the case of Program 2 or Program 4) for such Licensed Product with respect to any Calendar Quarter will not be reduced as a result of this Section 12.9.6 below […***…] of the amount that would otherwise have been payable hereunder. […***…] owed by Roche to BPM (or by BPM to Roche in the case of Program 2 or Program 4) for such Licensed Product. For any payments made by Roche (or BPM) to Third Parties in relation to Third Party issued patents that are (i) used by Roche (or BPM) for both Licensed Products and other products (including Roche Clinical Compounds or Roche Marketed Products) or applications, the Parties will agree on an equitable apportionment of such payments to reflect the fair value attributable to the Licensed Products under this Section 12.9.6 as compared to other products (including Roche Clinical Compounds or Roche Marketed Products) or applications, so that Roche's or BPM's right […***…] under this Section 12.9.6 is limited to fair value attributable to the Licensed Products only. If the Parties are unable to agree on an equitable apportionment of such payments, then either Party may refer such dispute to Expedited Arbitration.

12.9.7 Maximum Deductions

Notwithstanding anything foregoing, in no event shall the royalty paid for Net Sales of Licensed Products hereunder be reduced by more than an amount equal to […***…] of the royalties otherwise due for Net Sales of such Licensed Products, per the applicable royalty rates set forth above.

12.9.8 Apportionment of Compulsory Sublicensee Consideration

Compulsory Sublicense Compensation received by the Selling Party from a Compulsory Sublicensee shall be shared with the Non-Selling Party on an equivalent profit share percentage (the "**Compulsory Profit Share Percentage**") calculated for the respective Calendar Year as follows:

[…***…]

At the end of the Calendar Year, the Selling Party shall pay to the Non-Selling Party the Compulsory Sublicense Compensation under a given country or region of the Territory multiplied

by the Compulsory Profit Share Percentage. For clarity, any sales or payments by Compulsory Sublicensees under a Compulsory Sublicense shall not be considered as Net Sales or BPM Net Sales, as applicable, and shall not give rise to any royalty payment under Section 12.9.2 of this Agreement.

12.10 Disclosure of Payments

Each Party acknowledges that the other Party may be obligated to disclose this financial arrangement, including all fees, payments and transfers of value, as may be advisable or required under Applicable Law, including the US Sunshine Act.

12.11 Only One Royalty

Only one royalty will be due with respect to the sale of the same unit of Licensed Product. Only one royalty will be due hereunder on the sale of a Licensed Product even if the manufacture, use, sale, offer for sale or importation of such Licensed Product infringes more than one Composition of Matter Claim.

13. Accounting and reporting

13.1 Timing of Payments

The Selling Party shall calculate royalties on Net Sales or BPM Net Sales, as applicable, quarterly as of March 31, June 30, September 30 and December 31 (each being the last day of an "**Accounting Period**") and shall pay royalties on Net Sales or BPM Net Sales, as applicable, […***…] after the end of each Accounting Period in which such Net Sales or BPM Net Sales, as applicable, occur. Subject to Section 7.3 and Section 12.9.6, all payments of royalties are non-refundable, non-creditable and not subject to set-off with respect to undisputed amounts.

13.2 Late Payment

Any payment under this Agreement that is not paid on or before the date such payment is due shall bear interest, to the extent permitted by Applicable Law, at […***…], as reported by Reuters from time to time, calculated on the number of days such payment is overdue.

13.3 Method of Payment

Royalties on Net Sales and all other amounts payable hereunder shall be paid in US Dollars (the "**Payment Currency**") to account(s) designated by the Party to which payments are to be made.

13.4 Currency Conversion

When calculating the Sales of any Licensed Product that occur in currencies other than the Payment Currency, Roche shall convert the amount of such sales into Swiss Francs and then into the Payment Currency using Roche's then-current internal foreign currency translation method actually used on a consistent basis in preparing its audited financial statements (at the Effective Date, YTD average rate as reported by Reuters).

13.5 Reporting

Within ten (10) days after the end of a Calendar Quarter for which royalties are payable to a Party under Section 12.9, the paying Party shall deliver to the other Party in writing for the relevant Calendar Quarter, on a Licensed Product-by-Licensed Product basis, an estimate of the Sales, in the case of Roche, or BPM gross sales for Licensed Products, in the case of BPM.

With each payment Roche shall provide BPM in writing for the relevant Calendar Quarter on a Licensed Product-by-Licensed Product basis the following information:

(a) Sales in Swiss Francs;

(b) Net Sales in Swiss Francs;
(c) adjustments made pursuant to Section 12.9.4;
(d) Net Sales in Swiss Francs after adjustments made pursuant to Section 12.9.3 in Swiss Francs;
(e) exchange rate used for the conversion of Net Sales from Swiss Francs to the Payment Currency pursuant to Section 13.4;
(f) Net Sales after adjustments made pursuant to Section 12.9.4 in the Payment Currency;
(g) royalty rate pursuant to Section 12.9.2;
(h) adjustments made pursuant to Sections 12.9.5 and 12.9.6 (subject to the cap in Section 12.9.7);
(i) total royalty payable in the Payment Currency after adjustments made pursuant to Sections 12.9.5 and 12.9.6 (subject to the cap in Section 12.9.7); and
(j) calculation and each Party's amount of the Compulsory Profit Share Percentage.

With each payment BPM shall provide Roche in writing for the relevant Calendar Quarter on a Licensed Product-by-Licensed Product basis the following information with regard to Program 2 and Program 4:

(a) BPM Sales in US dollars;
(b) BPM Net Sales in US dollars;
(c) Adjustments made pursuant to Section 12.9.4;
(d) BPM Net Sales in US dollars after adjustments made pursuant to Section 12.9.4 in the US dollars;
(e) royalty rate pursuant to Section 12.9.2;
(f) adjustments made pursuant to Sections 12.9.5 and 12.9.6 (subject to the cap in Section 12.9.7);
(g) total royalty payable in US dollars after adjustments made pursuant to Sections 12.9.5 and 12.9.6 (subject to the cap in Section 12.9.7); and
(h) calculation and each Party's amount of the Compulsory Profit Share Percentage.

14. Taxes

The Non-Selling Party shall pay all sales, turnover, income, revenue, value added, and other taxes levied on account of any payments accruing or made to the Non-Selling Party under this Agreement.

Roche may withhold from payments due to BPM amounts for payment of any withholding tax that is required by Applicable Law to be paid to any taxing authority with respect to such payments. Roche will provide BPM all relevant documents and correspondence, and will also provide to BPM any other cooperation or assistance on a reasonable basis as may be necessary to enable BPM to claim exemption from such withholding taxes and to receive a refund of such withholding tax or claim a foreign tax credit. Roche will give proper evidence from time to time as to the payment of any such tax. The Parties will cooperate with each other in seeking deductions under any double taxation or other similar treaty or agreement from time to time in force. Such cooperation may include Roche making payments from a single source in the US, where necessary and possible.

BPM may withhold from payments due to Roche amounts for payment of any withholding tax that is required by Applicable Law to be paid to any taxing authority with respect to such payments. BPM will provide Roche all relevant documents and correspondence, and will also provide to Roche any other cooperation or assistance on a reasonable basis as may be necessary to enable Roche to claim exemption from such withholding taxes and to receive a refund of such withholding

tax or claim a foreign tax credit. BPM will give proper evidence from time to time as to the payment of any such tax. The Parties will cooperate with each other in seeking deductions under any double taxation or other similar treaty or agreement from time to time in force. Such cooperation may include BPM making payments from a single source in the US, where necessary and possible.

Apart from any such permitted withholding and those deductions expressly included in the definitions of Net Sales or BPM Net Sales, the amounts payable hereunder will not be reduced on account of any taxes, charges, duties or other levies.

15. Auditing

15.1 Right to Audit

The Selling Party shall keep, and shall require its Affiliates and Sublicensees to keep, full, true and accurate books of account containing all particulars that may be necessary for the purpose of calculating all royalties payable under this Agreement. Each Party shall keep, and shall require its Affiliates and Sublicensees to keep, full, true and accurate books of account containing all particulars that may be necessary for the purpose of calculating all Phase I Development Costs and Development Costs payable under this Agreement. Such books of accounts shall be kept at their principal place of business. At the expense of the auditing Party, the auditing Party shall have the right to engage an internationally recognized independent public accountant reasonably acceptable to the audited Party to perform, on behalf of the auditing Party, an audit of such books and records of the audited Party and its Affiliates that are deemed necessary by the independent public accountant to report on Net Sales of Licensed Product, Phase I Development Costs and/or Development Costs for the period or periods requested by the auditing Party and the correctness of any financial report or payments made under this Agreement.

Upon timely request and at least sixty (60) working days' prior written notice from the auditing Party, such audit shall be conducted in the countries specifically requested by the auditing Party, during regular business hours in such a manner as to not unnecessarily interfere with the audited Party's normal business activities. Such audit shall be limited to results in the three (3) Calendar Years prior to audit notification. Accordingly, if the auditing Party does not request an audit of a given Calendar Year for a given country on or before the third (3rd) anniversary of the end of such Calendar Year, then the audited Party will be deemed to have accepted the payments and reports for such country in such Calendar Year.

Such audit shall not be performed more frequently than once per Calendar Year nor more frequently than once with respect to records covering any specific period of time.

All information, data documents and abstracts herein referred to shall be used only for the purpose of verifying royalty statements, shall be treated as the audited Party’s Confidential Information subject to the obligations of this Agreement and need neither be retained more than one (1) year after completion of an audit hereof, if an audit has been requested; nor more than two (2) years from the end of the Calendar Year to which each shall pertain; nor more than one (1) year after the date of termination of this Agreement.

15.2 Audit Reports

The auditors shall only state factual findings in the audit reports and shall not interpret this Agreement. The auditors shall share all draft audit reports with the audited Party before the draft report is shared with the auditing Party and before the final document is issued. The final audit report shall be shared with the audited Party at the same time it is shared with the auditing Party.

15.3 Over- or Underpayment
If the audit reveals an overpayment, the auditing Party shall reimburse the audited Party for the amount of the overpayment within thirty (30) days. If the audit reveals an underpayment, the audited Party shall make up such underpayment with the next payment or, if no further payments are owed by the audited Party, then the audited Party shall reimburse the auditing Party for the amount of the underpayment within thirty (30) days. The auditing Party shall pay for the audit costs if the underpayment of the audited Party exceeds […***…] of the aggregate amount of payments owed with regard to the statements subject to the audit. Section 13.2 shall apply to this Section 15.3.

16. Intellectual Property

16.1 Ownership of Inventions
The following terms and conditions shall apply to the ownership of Inventions unless provided for otherwise in this Agreement:

Each Party shall remain owner of its Patent Rights and Know-How.

BPM shall solely own Inventions solely related to any improvements to the BPM Technology and all Patent Rights and Know-How relating thereto (which will be treated as BPM Technology).

Prior to exercise of an Option Right for each Collaboration Target by Roche, all Collaboration Compounds and all Other Compounds for a given Collaboration Target or other Targets, including their methods of manufacture […***…] and use, and all Patent Rights and Know-How relating thereto (including Collaboration Compound IP) shall be solely owned by BPM (with all of the foregoing that are not "Collaboration Compounds" or "Collaboration Compound IP" referred to herein as "**Other Compound IP**").

[…***…]

All Patent Rights and Know-How generated under this Agreement to the extent related to biomarkers or bioreagents, including their methods of manufacture and use, (the "**Biomarker IP**") shall be owned jointly by the Parties (with US rules on joint ownership to apply worldwide).

After exercise of an Option Right for each Collaboration Target by Roche, all Patent Rights and Know-How arising from the development or commercialization of Licensed Products, including their methods of manufacture and use, that is generated by (i) either Party individually shall be owned by such generating Party or (ii) both Parties jointly shall be owned jointly by the Parties (with US rules on joint ownership to apply worldwide).

Subsequent to exercise of an Option Right for a given Collaboration Target, the Roche Group shall not generate additional compounds directed to such Collaboration Target under this Agreement.

Subject to the foregoing, all Patent Rights and Know-How generated under this Agreement to the extent related to Collaboration Targets, including their methods of manufacture and use (other than Collaboration Compound IP, BPM Technology, Other Compound IP, Biomarker IP or […***…]), shall be owned jointly by the Parties (with US rules on joint ownership to apply worldwide).

Inventorship for Inventions (including Patent Rights and Know-How) first made during the course of the performance of activities under this Agreement will be determined in accordance with United States patent laws for determining inventorship. BPM and Roche each shall require all of its employees, consultants and contractors to assign all Inventions conceived by them to Roche and/or BPM, to the extent required by this Agreement.

Except as specifically set forth herein, this Agreement shall not be construed, by estoppel, implication or otherwise, as (i) giving any of the Parties any license, right, title, interest in or ownership to any Confidential Information; (ii) granting any license or right under any Patent Rights or Know-How; or (iii) representing any commitment by either Party to enter into any additional agreement. Notwithstanding anything in this Agreement to the contrary, all in-licensed Patent Rights or Know-How Controlled by a Party hereto will be subject to the applicable Third Party agreement.

16.2 Patent Rights Owned Jointly

Subject to the licenses granted in this Agreement, all Joint Patent Rights shall be fully exploitable by both Parties without the consent of the other Party and without the need by either Party to account to the other Party for such exploitation. At the reasonable written request of a Party, the other Party will grant such consents in writing and confirm that no such accounting is required to effect the foregoing regarding any such jointly-owned Patent Rights. Subject to in all events to the rest of this Section 16, the Handling and enforcement of any Joint Patent Rights will be jointly managed by the Parties on mutually agreeable terms to be entered into by the Parties at the time any such Joint Patent Rights 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 (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. In the event that one Party desires to proceed with any Handling or enforcement of a Joint Patent Right, and the other Party does not, then the Party desiring to proceed may proceed with such action at the proceeding Party's expense, and the proceeding Party may abandon such activities at any time without the consent of the other Party.

16.3 German Statute on Employee's Inventions

In accordance with the German Statute on Employees' Inventions, each Party agrees to claim the unlimited use of any Invention conceived, reduced to practice, developed, made or created in the performance of, or as a result of, any research by employees of any German Affiliates or any other persons acting on behalf of such German Affiliates. For the avoidance of doubt, each Party is responsible for fulfilling the obligations towards their employees under the German Statute of Employee's Inventions.

16.4 Trademarks and Labeling

Roche shall own the global trademarks, logos, slogans and service marks used on or in connection with Licensed Products ("**Global Trademarks**") worldwide, and shall, at its sole cost, be responsible for selection, procurement, maintenance, and defense of all trademarks used on or in connection with Licensed Products worldwide. For Program 2 and Program 4, BPM shall have the right to provide input for the Global Trademarks which Roche shall reasonably consider and BPM shall either use the Global Trademarks or may use other trademarks or logos of its own choosing and at its own expense on or in connection with Licensed Products in the BPM Territory. Roche shall have the first right to enforce the Global Trademarks in the Roche Territory. For Program 2 and Program 4, BPM shall have the first right to enforce the Global Trademarks in the BPM Territory. If BPM does not timely enforce the Global Trademarks in the BPM Territory, then

Roche shall have the right to enforce the Global Trademarks in the BPM Territory. Prior to commercialization of any Licensed Product in the BPM Territory bearing a Global Trademark, the Parties will enter into a trademark license agreement setting forth customary terms and conditions for using the Global Trademarks and ensuring quality and good will associated with the Global Trademarks. Notwithstanding the foregoing, BPM shall not be obligated to use such Global Trademarks and may instead select and use its own trademarks, logos, slogans and service marks on or in connection with Licensed Products for Program 2 and Program 4 in the BPM Territory (the "**BPM Trademarks**"). If BPM elects to use BPM Trademarks, BPM shall, at its sole cost, be responsible for selection, procurement, maintenance, and defense of all such BPM Trademarks used on or in connection with Licensed Products.

Roche shall have the right to obtain the International Non-proprietary Name (INN) from the World Health Organization and the US Adopted Name (USAN) from the US adopted Names Council (USANC) as the generic name(s) for the Licensed Products worldwide. The Parties shall consult with each other regarding the INN and USAN prior to Roche obtaining the INN and USAN, and Roche shall in good faith consider BPM's input.

In the case of Program 2 and Program 4, if BPM elects to use the Global Trademark, Roche shall grant BPM an exclusive, royalty-free license to use the Global Trademarks for the purpose of Exploiting the Licensed Products in the BPM Territory as permitted by this Agreement. Such trademark license shall be non-transferable, except that the BPM shall have the right to sublicense such rights to its Affiliates and Sublicensees in the BPM Territory.

Roche shall maintain all registrations of such Global Trademarks worldwide, and BPM shall not file any identical or similar registrations or other filings in respect of any of such Global Trademarks without Roche's prior written consent. BPM shall maintain all registrations of such BPM Trademarks, and Roche shall not file any identical registrations or other filings in respect of any of such BPM Trademarks without BPM's prior written consent.

Each Party shall use the Global Trademarks in accordance with sound trademark and trade name usage principles and in accordance with all Applicable Law as reasonably necessary to maintain the validity and enforceability of the Global Trademarks. BPM recognizes that Roche's Global Trademarks represent a valuable asset of Roche, and that substantial recognition and goodwill are associated with such name, logo and trademarks. BPM hereby agrees that, without prior written authorization of Roche, it shall not use such Global Trademarks for any purpose except as expressly permitted under this Agreement. Roche recognizes that BPM Trademarks represent a valuable asset of BPM, and that substantial recognition and goodwill are associated with such name, logo and trademarks. Roche hereby agrees that, without prior written authorization of BPM, it shall not use such BPM Trademarks for any purpose except as expressly permitted under this Agreement.

16.5 Prosecution by BPM

(a) Subject to the remainder of this Section 16.5, BPM shall […***…] (i) Handle all BPM Patent Rights and Patent Rights within Collaboration Compound IP, (ii) consult with Roche as to the Handling of such Patent Rights to the extent that, on a Collaboration Target-by-Collaboration Target, any such BPM Patent Rights Covers the chemical structure of any Collaboration Compound (collectively, for such Collaboration Target, "**BPM Specific Patent Rights**"), and (iii) furnish to Roche copies of all documents relevant to any such Handling for such BPM Specific Patent Rights. BPM shall furnish such documents and consult with Roche in sufficient time before any action by BPM is due to allow Roche to provide comments thereon, which comments BPM must consider but BPM shall retain

final decision-making authority with respect to such Handling. At BPM's reasonable request, Roche shall cooperate, in all reasonable ways with the Handling of all such Patent Rights. BPM agrees to file patent applications in all countries consistent with BPM's customary practices for its other internal programs. To the extent that Roche wishes for filings in additional countries, Roche shall provide BPM a list of such countries and BPM agrees to file patent applications in such additional countries […***…].

(b) Subject to Section 16.10, after exercise of an Option Right for each Collaboration Target, (i) Roche shall Handle, either directly or using the mutually agreed outside counsel previously utilized by BPM […***…] all Patent Rights within Collaboration Compound IP to the extent Covering a Licensed Product in the Field for the applicable Program 1, Program 3 and Program 5, (ii) Roche shall Handle in the Roche Territory, either directly or using the mutually agreed outside counsel used by BPM […***…] all Patent Rights within Collaboration Compound IP to the extent Covering a Licensed Product in the Field for a given Collaboration Target for the applicable Program 2 and 4, and (iii) BPM shall Handle in the BPM Territory, using mutually agreed upon outside counsel in consultation with Roche […***…] all Patent Rights within Collaboration Compound IP to the extent Covering a Licensed Product in the Field for a given Collaboration Target for the applicable Program 2 and 4. The controlling Party under this Section 16.5(b) shall […***…] (1) consult with the other Party as to the Handling of such Patent Rights, and (2) furnish to the other Party copies of all documents relevant to any such Handling for such Patent Rights. The controlling Party shall furnish such documents and consult with the other Party in sufficient time before any action by such controlling Party is due to allow such other Party to provide comments thereon, which comments such controlling Party must consider but the controlling Party shall retain final decision-making authority with respect to such Handling. At such controlling Party's reasonable request, the other Party shall cooperate, in all reasonable ways with the Handling of all such Patent Rights. Notwithstanding the foregoing in this Section 16.5(b), before abandoning any such Patent Rights (including electing not to file any continuation Patent Rights upon issuance of any Patent Rights), the applicable Controlling Party shall notify the other Party in advance of such abandonment to allow such other Party to elect to Handle such Patent Rights […***…].

16.6 Prosecution of Other Patent Rights

Roche shall […***…] Handle all Roche Patent Rights and Patent Rights within Roche Sole IP other than Joint Patent Rights (which Joint Patent Rights will be Handled under Section 16.5 if applicable or otherwise under Section 16.2). Subject to Section 16.5, BPM shall […***…] Handle all Patent Rights within BPM Sole IP other than Joint Patent Rights (which Joint Patent Rights will be Handled under Section 16.5 if applicable or otherwise under Section 16.2).

16.7 Patent Coordination Team

Where the Parties need to consult with each other on the Handling of Patent Rights, the Parties shall establish a patent coordination team and shall adopt procedures for interacting on patent matters. The patent coordination team shall be subject to the oversight of the JDC. The patent coordination team also shall serve as a forum for promptly notifying the other Party when an Invention is made by a Party.

16.8 Unified Patent Court (Europe)

At any time prior to the end of the "transitional period" as such term is used in Article 83 of the Agreement on a Unified Patent Court between the participating Member States of the European Union, for a given relevant EU Patent Right, Roche may request in writing that BPM either (i) opt out from the exclusive competence of the Unified Patent Court or (ii) if applicable, withdraw a

previously-registered opt-out, and BPM shall notify the Registry, pay any such registry fee and take such other action as may be necessary to effect the opt-out or opt-out withdrawal ("**Register**"). BPM shall Register within five (5) days of receipt of Roche's written request, or such other time parameters specified by Roche.

16.9 CREATE Act

It is the intention of the Parties that this Agreement is a "joint research agreement" as that phrase is defined in the Cooperative Research and Technology Enhancement Act of 2004, 35 U.S.C. § 103(c)(2)-(c)(3) (the "**CREATE Act**"). Notwithstanding anything to the contrary in this Agreement, each Party will have the right to invoke the CREATE Act when exercising its rights under this Agreement, but with respect to any Patent Rights with the BPM IP or Collaboration Compound IP, only with the prior written consent of BPM in its sole discretion, and with respect to any Patent Rights within the Roche IP, only with the prior written consent of Roche in its sole discretion. In the event that a Party intends to invoke the CREATE Act, once agreed to by the other Party if required by the preceding sentence, it will notify the other Party and the other Party will cooperate and coordinate its activities with such Party with respect to any filings or other activities in support thereof.

16.10 Infringement

Each Party shall promptly provide written notice to the other Party during the Agreement Term of any (i) known infringement or suspected infringement by a Third Party of any BPM IP, Patent Rights within Collaboration Compound IP, Roche Patent Rights or Joint Patent Rights, or (ii) known or suspected unauthorized use or misappropriation by a Third Party of any BPM Know-How, Roche Know-How or Joint Know-How, in each case if and to the extent involving any commercialization of any Licensed Product (or other compounds that satisfy the Compound Criteria) for the applicable Collaboration Target in the Field, and shall provide the other Party with all evidence in its possession and Control supporting such infringement or unauthorized use or misappropriation.

Within ten (10) Business Days after a Party provides or receives such written notice ("**Decision Period**"), such Party in its Territory (i.e., Roche in the Roche Territory and BPM in the BPM Territory), in its sole discretion, shall decide whether or not to initiate a suit or action in the Territory regarding such infringement or unauthorized use or misappropriation and shall notify the other Party in writing of its decision in writing ("**Suit Notice**").

If Roche decides to bring a suit or take action in the Roche Territory with respect to such infringement or unauthorized use or misappropriation, once the applicable Suit Notice is provided, Roche may immediately commence such suit or take such action in the Roche Territory. In the event that Roche (i) does not in writing advise BPM within the Decision Period that Roche will commence suit or take action, or (ii) fails to commence suit or take action within a reasonable time after providing Suit Notice, BPM shall thereafter have the right to commence suit or take action in the Roche Territory and shall provide written notice to Roche of any such suit commenced or action taken by BPM. If BPM decides to bring a suit or take action in the BPM Territory with respect to such infringement or unauthorized use or misappropriation, once the applicable Suit Notice is provided, BPM may immediately commence such suit or take such action in the BPM Territory. In the event that BPM (i) does not in writing advise Roche within the Decision Period that BPM will commence suit or take action, or (ii) fails to commence suit or take action within a reasonable time after providing Suit Notice, Roche shall thereafter have the right to commence suit or take action in the BPM Territory and shall provide written notice to BPM of any such suit commenced or action taken by Roche.

Upon written request, the Party bringing suit or taking action ("**Initiating Party**") shall keep the other Party informed of the status of any such suit or action and shall provide the other Party with copies, to the extent the Initiating Party is lawfully permitted to do so, of all substantive documents or communications filed in such suit or action. The Initiating Party shall have the sole and exclusive right to select counsel for any such suit or action, and any actions that otherwise would have been Handled with respect to any Patent Rights subject to this Section 16 will be controlled by the Initiating Party to the extent reasonably related to such suit or action.

The Initiating Party shall, except as provided below, pay all expenses of the suit or action, including the Initiating Party's attorneys' fees and court costs. Any damages, settlement fees or other consideration received as a result of such suit or action shall be allocated as follows:

(a) First, to reimburse the Initiating Party for its costs and, if any remains, to the other Party for any advisory counsel fees and costs; and

(b) Second, the balance, if any, (1) to the extent a lost profits award, shall be treated as Net Sales and subject to royalty obligations under this Agreement, and (2) to the extent a royalty or other type of award, will be paid […***…].

If the Initiating Party believes it is reasonably necessary or desirable to obtain an effective remedy, upon written request the other Party agrees to be joined as a party to the suit or action but shall be under no obligation to participate except to the extent that such participation is required as the result of its being a named party to the suit or action. At the Initiating Party's written request, the other Party shall offer reasonable assistance to the Initiating Party in connection therewith at no charge to the Initiating Party except for reimbursement of reasonable out-of-pocket expenses incurred by the other Party in rendering such assistance. The other Party shall have the right to participate and be represented in any such suit or action by its own counsel at its own expense.

The Initiating Party may settle, consent judgment or otherwise voluntarily dispose of the suit or action ("**Settlement**") without the written consent of the other Party but only if such Settlement can be achieved without adversely affecting the other Party (including any of its Patent Rights). If a Settlement could adversely affect the other Party, then the written consent of the other Party would be required, which consent shall not be unreasonably withheld, conditioned or delayed.

16.11 Defense

If an action for infringement of Patent Rights or trade secrets misappropriation is commenced against either Party, its licensees or its sublicensees related to the conduct of the activities within the scope of the Research Plan, or the development, manufacture, use or sale of a Product in the Roche Territory, then Roche shall have the right (but not the obligation) to defend such action at its own expense, and BPM shall assist and cooperate with Roche, at Roche's expense, to the extent necessary in the defense of such suit. Roche shall have the right to settle the suit or consent to an adverse judgment thereto, in its sole discretion, so long as such settlement or adverse judgment does not adversely affect the rights of the BPM Group (including any Patent Rights owned or in-licensed by any of them). Roche shall assume full responsibility for the payment of any award for damages, or any amount due pursuant to any settlement entered into by it with such Third Party. If an action for infringement of Patent Rights or trade secrets misappropriation is commenced against either Party, its licensees or its sublicensees related to the development, manufacture, use or sale of a Product in the BPM Territory, then BPM shall have the right (but not the obligation) to defend such action at its own expense, and Roche shall assist and cooperate with BPM, at BPM's expense, to the extent necessary in the defense of such suit. BPM shall have the right to settle the suit or consent to an adverse judgment thereto, in its sole discretion, so long

as such settlement or adverse judgment does not adversely affect the rights of the Roche Group (including any Patent Rights owned or in-licensed by any of them). BPM shall assume full responsibility for the payment of any award for damages, or any amount due pursuant to any settlement entered into by it with such Third Party.

The Parties shall cooperate with each other in connection with any such claim, suit or proceeding and shall keep each other reasonably informed of all material developments in connection with any such claim, suit or proceeding.

Notwithstanding the above, neither Party shall enter into any settlement of any such claim under this Section 16.11 without the prior written consent of the other Party if such settlement would require such other Party to be subject to an injunction or to make any monetary payment to such Party or any Third Party, or admit any wrongful conduct by such other Party or its Affiliates, or would limit or restrict the claims of or admit any invalidity and/or unenforceability of any of the Patent Rights owned or in-licensed by such other Party, or have any impact on activities outside the Field.

16.12 Common Interest Disclosures

With regard to any information or opinions disclosed pursuant to this Agreement by one Party to each other regarding intellectual property and/or technology owned by Third Parties, the Parties agree that they have a common legal interest in determining whether, and to what extent, Third Party intellectual property rights may affect the conduct of the activities under the Research Plans or Library Compounds, Other Compounds, Collaboration Compounds, Products or Licensed Products, and have a further common legal interest in defending against any actual or prospective Third Party claims based on allegations of misuse or infringement of intellectual property rights relating to the conduct of the activities under the Research Plans or Library Compounds, Other Compounds, Collaboration Compounds, Products or Licensed Products. Accordingly, the Parties agree that all such information and materials obtained by BPM and Roche from each other will be used solely for purposes of the Parties' common legal interests with respect to the conduct of this Agreement. All information and materials will be treated as protected by the attorney-client privilege, the work product privilege, and any other privilege or immunity that may otherwise be applicable. By sharing any such information and materials, neither Party intends to waive or limit any privilege or immunity that may apply to the shared information and materials. Neither Party shall have the authority to waive any privilege or immunity on behalf of the other Party without such other Party's prior written consent, nor shall the waiver of privilege or immunity resulting from the conduct of one Party be deemed to apply against the other Party.

16.13 Hatch-Waxman

Notwithstanding anything herein to the contrary, should a Party receive a certification for a Licensed Product pursuant to the Drug Price Competition and Patent Term Restoration Act of 1984 (Public Law 98-417, known as the Hatch-Waxman Act), as amended, or its equivalent in a country other than the US, with respect to any activities under this Agreement in the Field, then such Party shall immediately provide the other Party with a copy of such certification. For each Licensed Product, Roche in the Roche Territory, and BPM in the BPM Territory, shall have thirty (30) days from date on which it receives or provides a copy of such certification to provide written notice to the other Party ("**H-W Suit Notice**") whether such first Party will bring suit, at its expense, within a forty-five (45) day period from the date of such certification. Should such thirty (30) day period expire without such first Party bringing suit or providing such H-W Suit Notice, then such other Party shall be free to immediately bring suit in its name.

16.14 Patent Term Extensions

With respect to Patent Rights within the Collaboration Compound IP with application in the Field, the Parties shall use Commercially Reasonable Efforts to obtain all available patent term extensions, adjustments or restorations, or supplementary protection certificates ("**SPCs**", and together with patent term extensions, adjustments and restorations, "**Patent Term Extensions**", in each case for such Patent Rights within Collaboration Compound IP with Field applicability). For Licensed Products with application in the Field in the Roche Territory, BPM shall execute such authorizations and other documents and take such other actions as may be reasonably requested by Roche to obtain such Patent Term Extensions, including designating Roche as its agent for such purpose as provided in 35 USC § 156. BPM shall retain those rights for Licensed Products in the BPM Territory. All filings for such Patent Term Extensions shall be made by Roche for Licensed Products in the Roche Territory and by BPM for Licensed Products in the BPM Territory; provided, that in the event that the lead Party elects not to file for a Patent Term Extension, the lead Party shall (a) promptly inform the other Party of its intention not to file and (b) grant BPM the right to file for such Patent Term Extension. Each Party shall execute such authorizations and other documents and take such other actions as may be reasonably requested by the other Party to obtain such extensions. The Parties shall cooperate with each other in gaining patent term restorations, extensions and/or SPCs wherever applicable to such Patent Rights within Collaboration Compound IP.

17. Representations and Warranties

17.1 Third Party Patent Rights

[…***…] represents and warrants, as of the Effective Date, that it has no knowledge of the existence of any patent or patent application owned by or licensed to any Third Party that could prevent the activities contemplated by this Agreement in the Territory.

17.2 Ownership of Patent Rights

[…***…]represents and warrants, as of the Effective Date, that it is the exclusive owner of all right, title and interest in, or is the exclusive licensee of, the […***…].

17.3 Inventors

[…***…]represents and warrants, as of the Effective Date, that (a) it has obtained the assignment of, or an exclusive license under, all interest and all rights or licenses thereunder with respect to the […***…] necessary to grant the licenses granted hereunder and (b) all of its employees, officers and consultants have executed agreements requiring assignment to it of all Inventions made by such individuals during the course of and as a result of their association with it.

17.4 Grants

To its knowledge and belief, each of BPM and Roche represents and warrants, as of the Effective Date, that it has the lawful right to grant Roche or BPM, respectively, and each of their Affiliates the rights and licenses described in this Agreement.

17.5 Authorization

Each of BPM and Roche represents and warrants, as of the Effective Date, that its execution, delivery and performance of this Agreement and all instruments and documents to be delivered by it hereunder: (i) are within its corporate power and authority; (ii) have been duly authorized by all necessary or proper corporate action; (iii) are not in contravention of any provision any of its formation or governance documents; (iv) to its knowledge, will not violate any law or regulation or any order or decree of any court of governmental instrumentality; (v) will not violate the terms of any indenture, mortgage, deed of trust, lease, agreement, or other instrument to which it is a party

or by which it or any of its property is bound, which violation would have an adverse effect on its financial condition or on its ability to perform its obligations hereunder; and (vi) do not require any filing or registration with, or the consent or approval of, any governmental body, agency, authority or any other Person, which has not been made or obtained previously.

17.6 Validity of Patent Rights

[…***…] represents and warrants, as of the Effective Date, that it is not in possession of information that could render invalid and/or unenforceable any claims that are in any of the […***…]. […***…] has no knowledge of any inventorship disputes concerning any […***…].

17.7 Ownership and Validity of Know-How

[…***…] represents and warrants, as of the Effective Date, that its Know-How is legitimately in its possession and, to its knowledge, has not been misappropriated from any Third Party. […***…] has taken reasonable measures to protect the confidentiality of its Know-How.

17.8 No Claims

Each of BPM and Roche represents and warrants, as of the Effective Date, that there are no claims or investigations, pending or threatened against it or any of its Affiliates, at law or in equity, or before or by any governmental authority relating to the matters contemplated under this Agreement or that would materially adversely affect its ability to perform its obligations hereunder.

17.9 No Conflict

To its knowledge, each of BPM and Roche represents and warrants, as of the Effective Date that neither it nor any of its Affiliates is or will be under any obligation to any person, contractual or otherwise, that is conflicting with the terms of this Agreement or that would impede the fulfillment of BPM's obligations hereunder.

17.10 No Other Representations

EXCEPT AS OTHERWISE PROVIDED IN THIS AGREEMENT, THE FOREGOING REPRESENTATIONS AND WARRANTIES ARE IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF PRODUCTS.

18. Indemnification

18.1 Indemnification by Roche

Roche shall indemnify, hold harmless and defend BPM and its directors, officers, employees and agents from and against any and all Third Party liabilities, losses, expenses, cost of defense (including without limitation attorneys' fees, witness fees, damages, judgments, fines and amounts paid in settlement) and any amounts BPM becomes legally obligated to pay because of breach of contract by Roche or any claim or claims against it to the extent that such claim or claims arise out of Roche's and its Affiliates' actions or inactions in connection with activities under this Agreement, including the Exploitation of any Library Compounds, Other Compounds, Collaboration Compounds, Products or Licensed Products, except to the extent such liabilities, losses, expenses, costs and amounts are due to the breach of this Agreement by BPM or the gross negligence or willful misconduct or failure to act of BPM.

18.2 Indemnification by BPM

BPM shall indemnify, hold harmless and defend Roche and its directors, officers, employees and agents from and against any and all Third Party liabilities, losses, expenses, cost of defense

(including without limitation attorneys' fees, witness fees, damages, judgments, fines and amounts paid in settlement) and any amounts Roche becomes legally obligated to pay because of breach of contract by BPM or any claim or claims against it to the extent that such claim or claims arise out of BPM's and BPM's Affiliates' actions or inactions in connection with activities under this Agreement, including the Exploitation of any Library Compounds, Other Compounds, Collaboration Compounds, Products or Licensed Products, except to the extent such liabilities, losses, expenses, costs and amounts are due to the breach of this Agreement by Roche or the gross negligence or willful misconduct or failure to act of Roche.

18.3 Procedure

In the event of a claim by a Third Party against a Party entitled to indemnification under this Agreement ("**Indemnified Party**"), the Indemnified Party shall promptly notify the other Party ("**Indemnifying Party**") in writing of the claim and the Indemnifying Party shall undertake and solely manage and control, at its sole expense, the defense of the claim and its settlement. The Indemnified Party shall cooperate with the Indemnifying Party and may, at its option and expense, be represented in any such action or proceeding by counsel of its choice. The Indemnifying Party shall not be liable for any litigation costs or expenses incurred by the Indemnified Party without the Indemnifying Party's written consent. The Indemnifying Party shall not settle any such claim unless such settlement fully and unconditionally releases the Indemnified Party from all liability relating thereto, unless the Indemnified Party otherwise agrees in writing.

19. Liability

19.1 Limitation of Liability

Subject to Section 19.2, neither Party shall be liable to the other Party as a result of failure or delay to develop and/or commercialize any Collaboration Compound, Product or Licensed Product, as applicable, including but not limited to, (a) a delay in timelines, (b) delay or failure to recruit patients, (c) a change in its respective study protocols, or (d) failure of the other Party to obtain Regulatory Approval for any Collaboration Compound, Product or Licensed Product, as applicable.

19.2 Disclaimer

THE FOREGOING REPRESENTATIONS AND WARRANTIES ARE IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES NOT EXPRESSLY SET FORTH HEREIN. BPM AND ROCHE DISCLAIM ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, WITH RESPECT TO EACH OF THEIR RESEARCH, DEVELOPMENT AND COMMERCIALIZATION EFFORTS HEREUNDER, INCLUDING, WITHOUT LIMITATION, WHETHER THE PRODUCTS CAN BE SUCCESSFULLY DEVELOPED OR MARKETED, THE ACCURACY, PERFORMANCE, UTILITY, RELIABILITY, TECHNOLOGICAL OR COMMERCIAL VALUE, COMPREHENSIVENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WHATSOEVER OF THE PRODUCTS. EXCEPT FOR INDEMNIFICATION UNDER ARTICLE 18 AND BREACH OF NON-DISCLOSURE AND NON-USE UNDER ARTICLE 20, IN NO EVENT SHALL EITHER BPM OR ROCHE BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THIS AGREEMENT BASED ON CONTRACT, TORT OR ANY OTHER LEGAL THEORY.

20. Obligation Not to Disclose Confidential Information

20.1 Non-Use and Non-Disclosure

Subject to the remainder of this Section 20, during the Agreement Term and for five (5) years thereafter, a Receiving Party shall (i) treat Confidential Information provided by Disclosing Party as it would treat its own information of a similar nature, (ii) take all reasonable precautions not to

disclose such Confidential Information to Third Parties, without the Disclosing Party’s prior written consent, and (iii) not use such Confidential Information other than for fulfilling its obligations or exploit its licenses and other rights under this Agreement.

20.2 Permitted Disclosure

Notwithstanding the obligation of non-use and non-disclosure set forth in Section 20.1, the Parties recognize the need for certain exceptions to this obligation, specifically set forth below, with respect to press releases, patent rights, publications, and certain commercial considerations.

20.3 Press Releases

The Parties may, individually or jointly, issue a press release announcing the existence and selected key terms of this Agreement, in a form substantially similar to the template attached as Appendix 20.3.

Roche shall issue press releases in accordance with its internal policy that typically does not issue a second press release until Phase I proof of concept has been achieved for a Product and Roche has exercised its Option Right with respect to the Collaboration Target. Roche shall provide BPM with a copy of any draft press release related to the activities contemplated by this Agreement at least two (2) weeks prior to its intended publication for BPM's review. BPM may provide Roche with suggested modification to the draft press release. Roche shall consider BPM's suggestions in issuing its press release.

BPM shall only issue press releases related to the activities contemplated by this Agreement that have either (i) been approved by Roche or (ii) are required to be issued by BPM as a matter of law and BPM has received a competent legal opinion to that effect. In all circumstances, BPM shall provide Roche with a draft press release at least two (2) weeks prior to its intended publication for Roche's review, unless a shorter time period is required as a matter of law and BPM has received a competent legal opinion to that effect. During such period, Roche shall (a) approve the draft press release and permit BPM to issue the press release, (b) contact BPM to discuss modification to the draft press release, or (c) contact BPM and disapprove the press release. If Roche asks for modification, then BPM shall either make such modification or work with Roche to arrive at a press release that Roche approves. Notwithstanding any of the foregoing, BPM may issue a press release upon the achievement of any milestone event (including the amount and payment of such milestone payment for any such milestone event) without obtaining the consent of Roche announcing the achievement of such event.

To ensure communication alignment, responses (if any) to inquiries by media or other Third Parties after issuance of a permitted press release by BPM (solely or jointly with Roche) shall consist solely of the press release language or shall follow the response guidelines that may be mutually developed by the Parties except to the extent additional or varying disclosure is required by a Regulatory Authority, including the United States Securities and Exchange Commission (or foreign equivalent) to comply with either Party’s disclosure obligations as a public company.

20.4 Publications

During the Agreement Term, the following restrictions shall apply with respect to disclosure by any Party of Confidential Information in any publication or presentation:

Both Parties acknowledge that it is their policy for the studies and results thereof to be registered and published in accordance with their internal guidelines. Roche, in accordance with its internal policies and procedures, shall have the right to publish all studies, clinical trials and results thereof on the clinical trial registries that are maintained by or on behalf of Roche. BPM shall not publish

any studies, clinical trials or results thereof on its clinical trial registry, provided however, that Roche's clinical trial registry can be accessed via a link from BPM's clinical trial registry.

A Party ("**Publishing Party**") shall provide the other Party with a copy of any proposed material publication or presentation at least thirty (30) days (or sixty (60) days in the case of a manuscript) prior to submission for publication so as to provide such other Party with an opportunity to recommend any changes it reasonably believes are necessary to continue to maintain the Confidential Information disclosed by the other Party to the Publishing Party in accordance with the requirements of this Agreement. The incorporation of such recommended changes shall not be unreasonably refused; and if such other Party notifies ("**Publishing Notice**") the Publishing Party in writing, within such thirty (30) day period (or sixty (60) day period in the case of a manuscript) after receipt of the copy of the proposed publication, presentation, or manuscript, that such publication or presentation in its reasonable judgment (i) contains an invention, solely or jointly conceived and/or reduced to practice by the other Party, for which the other Party reasonably desires to obtain patent protection or (ii) could be expected to have a material adverse effect on the commercial value of any Confidential Information disclosed by the other Party to the Publishing Party, the Publishing Party shall prevent such publication or delay such publication for a mutually agreeable period of time. In the case of inventions, a delay shall be for a period reasonably sufficient to permit the timely preparation and filing of a patent application(s) on such invention, and in no event less than ninety (90) days from the date of the Publishing Notice.

20.5 Commercial Considerations

Nothing in this Agreement shall prevent a Receiving Party or its Affiliates from disclosing Confidential Information of the Disclosing Party and the existence and terms of this Agreement to (i) governmental agencies to the extent required or desirable to secure government approval for the development, manufacture or commercialization of a Product or Licensed Product in the Territory or to obtain patents in accordance with this Agreement; provided that such Confidential Information will be disclosed only to the extent reasonably necessary to do so, and where permitted, subject to confidential treatment, (ii) Third Parties acting on behalf of the Receiving Party, to the extent reasonably necessary for the Receiving Party to perform its obligations or exercise its rights under this Agreement, (iii) Third Parties requesting Clinical Study data information (in accordance with the Receiving Party's then-current data sharing policy), (iv) Third Parties to the extent reasonably necessary to market the Licensed Products in the Territory, (v) its Affiliates, consultants, CROs, licensees or Sublicensees, and its and their directors, officers, employees, agents or advisors (including accountants, attorneys, consultants, bankers, financial advisors and members of advisory boards) who reasonably require Confidential Information, are informed of the confidential nature of such information and are bound by non-use and confidentiality obligations with respect to such Confidential Information, and (vi) any bona fide potential or actual sources of debt or equity financing or parties to a merger, acquisition or similar transaction (including attorneys, accountants, consultants, bankers or financial advisors of the foregoing) who reasonably require such Confidential Information as part of their due diligence investigations and who are informed of the confidential nature of such information and this Agreement and are bound by obligations of non-use and confidentiality with respect to such Confidential Information. The Receiving Party may disclose Confidential Information of the Disclosing Party to the extent that such Confidential Information is required to be disclosed by the Receiving Party to comply with Applicable Law, including the rules and regulations of the U.S. Securities and Exchange Commission (or equivalent foreign agency) or a securities exchange on which its or its Affiliate's securities are listed (or to which an application for listing has been submitted), to defend or prosecute litigation or to comply with governmental regulations, provided that the Receiving Party provides prior written notice of such disclosure to the Disclosing Party, such Confidential Information is disclosed only to the extent reasonably necessary to do so and,

to the extent practicable, takes reasonable and lawful actions to minimize the degree of such disclosure.

The Parties acknowledge that either or both Parties may be obligated to make a filing (including to file a copy of this Agreement) with the U.S. Securities and Exchange Commission (or equivalent foreign agency) or a governmental authority. Each Party will be entitled to make such a required filing, provided that it will (a) submit in connection with such filing the redacted copy of this Agreement in a form mutually agreed to by the Parties (the "**Redacted Agreement**"), (b) request, and use commercially reasonable efforts consistent with Applicable Laws to obtain, confidential treatment of all terms redacted from this Agreement, as reflected in the Redacted Agreement, for a period of at least ten (10) years, (c) promptly deliver to the other Party any written correspondence received by it or its representatives from the U.S. Securities and Exchange Commission (or equivalent foreign agency) or a governmental authority with respect to such confidential treatment request and promptly advise the other Party of any other material communications between it or its representatives with the U.S. Securities and Exchange Commission (or equivalent foreign agency) or a governmental authority with respect to such confidential treatment request, (d) upon the written request of the other Party, if legally justifiable, request an appropriate extension of the term of the confidential treatment period, and (e) if the U.S. Securities and Exchange Commission (or equivalent foreign agency) or a governmental authority requests any changes to the redactions set forth in the Redacted Agreement, use commercially reasonable efforts consistent with Applicable Laws 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 (provided that a Party will only be required to make such efforts to support such redactions once). Each Party will be responsible for its own legal and other external costs in connection with any such filing, registration or notification.

21. Term and Termination

21.1 Commencement and Term

This Agreement shall commence upon the Effective Date and continue for the Agreement Term.

21.2 Termination

21.2.1 Termination for Breach

A Party ("**Non-Breaching Party**") shall have the right to terminate this Agreement in its entirety or on a Collaboration Target-by-Collaboration Target or Program-by-Program basis, in the event the other Party ("**Breaching Party**") is (i) in material breach of any of its material obligations under this Agreement with respect to Program 1, Program 3, or Program 5, or (ii) in material breach of any of its material obligations under this Agreement in a manner that fundamentally frustrates the transactions contemplated by this Agreement with respect to Program 2 or Program 4, in either (i) or (ii) to this Agreement or such Collaboration Target or Program (as applicable). The Non-Breaching Party shall provide written notice to the Breaching Party, which notice shall identify the breach and the Collaboration Target(s) or Program(s) for which, the Non-Breaching Party intends to have this Agreement terminate. The Breaching Party shall have a period of ninety (90) days after such written notice is provided ("**Peremptory Notice Period**") to cure such breach. If the alleged Breaching Party has a *bona fide* dispute as to whether such breach occurred or has been cured, it will so notify the Non-Breaching Party within the Peremptory Notice Period, and the expiration of the Peremptory Notice Period shall be tolled until such dispute is resolved pursuant to Section 23.2. Upon a determination of breach or failure to cure, the Breaching Party may have

the remainder of the Peremptory Notice Period to cure such breach. If such breach is not cured within the Peremptory Notice Period, then absent withdrawal of the Non-Breaching Party's request for termination, this Agreement shall terminate in its entirety or with respect to such Collaboration Target(s) or Program(s) effective as of the expiration of the Peremptory Notice Period.

21.2.2 Insolvency

A Party shall have the right to terminate this Agreement if the other Party incurs an Insolvency Event; provided, however, in the case of any involuntary bankruptcy proceeding, such right to terminate shall only become effective if the Party that incurs the Insolvency Event consents to the involuntary bankruptcy or such proceeding is not dismissed within ninety (90) days after the filing thereof.

21.2.3 Effects of Change of Control

If there is a Change of Control, then the Party experiencing such Change of Control ("**Acquired Party**") shall provide written notice to the other Party ("**Non-Acquired Party**") at least thirty (30) days prior to completion of such Change of Control, subject to any confidentiality obligations of the Acquired Party then in effect (but in any event shall notify the Non-Acquired Party within fifteen (15) days after completion of such Change of Control).

The Change of Control Group in connection with such Change of Control shall not utilize any of the Non-Acquired Party's solely owned (with respect to the Acquired Party) Know-How or Patent Rights licensed to the Acquired Party under this Agreement, or Inventions or Confidential Information (but not Joint Know-How, Joint Patent Rights or Joint Inventions) (such solely-owned items, collectively, "**Sensitive Information**"), except as otherwise permitted by the Agreement.

Following closing of the Change of Control, the Acquired Party and the Change of Control Group shall adopt in writing reasonable procedures to prevent the disclosure of Sensitive Information beyond the Acquired Party's and the Change of Control Group's personnel who need to know the Sensitive Information solely for the purpose of fulfilling the Acquired Party's obligations, and exercising the Acquired Party's licenses and other rights, under this Agreement.

In addition, in the event that (a) BPM is acquired through a Change of Control by a […***…] (based on […***…]) within […***…] after the Effective Date and (b) within […***…] after such Change of Control, BPM experiences a significant delay with respect to key deliverables included in the Research Plan for either […***…] or […***…] in effect as of the Change of Control and is unable to make up such delay to the anticipated Research Plan for […***…] and/or […***…] as applicable in the following […***…], then, in lieu of exercising Roche's right to terminate this Agreement in accordance with Section 21.2.1, for any Collaboration Compounds that the JRC has determined have satisfied […***…] for Collaboration Targets […***…] or […***…] (as applicable) prior to the closing of such Change of Control, Roche shall have the right, upon written notice to BPM, to step in and assume the medicinal chemistry efforts previously performed by BPM for such Collaboration Compounds that the JRC has determined have satisfied […***…] as determined by the JRC. All other activities pursuant to the Research Plan shall be managed by the JRC in accordance with Section 8.4 and Section 4.1.3. For clarity, the foregoing rights (i) shall not apply to any Library Compounds or Other Compounds that have not satisfied Lead Series Identified Criteria for Collaboration Targets […***…] or […***…] (as applicable), or any other Collaboration Targets, and (ii) shall terminate in full […***…] after the Effective Date.

21.2.4 Termination by Roche without Cause

Prior to exercise of its first Option Right, Roche shall have the right to terminate this Agreement as a whole or on a Collaboration Target-by-Collaboration Target basis, upon one hundred twenty (120) days prior written notice. Following the exercise of its first Option Right, Roche shall have the right to terminate this Agreement at any time as a whole, on a Collaboration Target-by-Collaboration Target basis, on a Program-by-Program basis, or, after First Commercial Sale, upon a country-by-country basis, upon (a) prior to First Commercial Sale of the first Licensed Product for such Collaboration Target or Program, one hundred twenty (120) days prior written notice or (b) after the First Commercial Sale of the first Licensed Product for such Collaboration Target or Program, one hundred eighty (180) days prior written notice. The effective date of termination under this Section 21.2.4 shall be the date one hundred twenty (120) days (or one hundred eighty (180) days as the case may be) after Roche provides such written notice to BPM.

21.2.5 Termination by BPM for Roche Suspension of Development

On a Program-by-Program basis, if (i) after the exercise of Roche's Option Right with respect to a Collaboration Target for such Program, […***…], and (ii) such […***…] was not due to events outside of the reasonable control of the Roche Group […***…], then BPM will have the right, in its sole discretion, to terminate this Agreement with respect to such Program upon […***…] written notice to Roche. In the event that the Roche Group does not proceed with development of the applicable Program as a result of events outside its reasonable control, the […***…].

21.3 Consequences of Termination

21.3.1 Termination by BPM for Breach by Roche, Roche Insolvency, by Roche Without Cause, or by BPM for Roche Suspension of Development or Commercialization

Upon any termination by BPM for breach by Roche pursuant to Section 21.2.1 or 21.2.5 or for an Insolvency Event of Roche pursuant to Section 21.2.2 or by Roche without cause pursuant to Section 21.2.4, on the effective date of termination (a) the rights and licenses granted by BPM to Roche under this Agreement shall terminate in their entirety or on a Collaboration Target-by-Collaboration Target basis or Program-by-Program basis or on a country-by-country basis, as applicable, (b) except as set forth in this Section 21.3.1, the rights and obligations of the Parties hereunder will terminate with respect to the Collaboration Target, Program, or country and any applicable Collaboration Target shall become a "**Terminated Target**," and (c) Roche will execute all documents and take all such further actions as may be reasonably requested by BPM in order to give effect to the foregoing clauses.

If BPM desires to continue to Exploit Licensed Product(s) (or any derivatives, improvements, modifications or enhancements against the applicable Target, thereof) (collectively, the "**Reversion Products**") in the Field after such termination, BPM shall give a Continuation Election Notice to Roche within ninety (90) days of the effective date of termination. If Roche receives such a timely Continuation Election Notice, and to the extent reasonably requested by BPM:

(a) As promptly as practicable after the effective date of termination, Roche shall, to the extent Roche has the right to do so under Applicable Law, assign and transfer to BPM or BPM's designee possession and ownership of all governmental or regulatory filings, regulatory materials, pricing approvals and Regulatory Approvals, all copies of material correspondence and conversation logs relating to the Exploitation of the Reversion Products, all final pre-clinical and clinical study reports and clinical study protocols, Global

Trademarks, and all data, including non-clinical and clinical data and other material sales and marketing related information in Roche's possession and control related to Reversion Product(s) or the corresponding Collaboration Target(s) to the extent necessary or reasonably useful for BPM to continue to Exploit the Reversion Product(s) in the Field. All data and other information shall be transferred in the form and format in which it is maintained by Roche. Original paper copies shall only be transferred, if required by Applicable Law. Roche shall not be required to prepare or finalize any new data, reports or information solely for purposes of transfer to BPM.

(b) Roche shall appoint BPM as Roche's or Roche's Affiliates' (and to the extent permitted by the applicable sublicense, its Sublicensees') agent for all Reversion Product-related matters involving Regulatory Authorities in the Roche Territory until all Regulatory Approvals, regulatory materials, pricing approvals and other governmental or regulatory filings required to be assigned to BPM hereunder have, in fact, been assigned to BPM or its designee, but in no event longer than the one (1) year anniversary of the effective date of termination. In the event of failure to obtain assignment of any of the items required to be assigned under this Section 21.3.1, Roche hereby consents and grants to BPM or its designee the right to access and reference (without any further action required on the part of Roche, whose authorization to file this consent with any Regulatory Authority is hereby granted) any such item with respect to all Reversion Products.

(c) If the effective date of termination is after First Commercial Sale of a Reversion Product, then, to the extent permitted by Applicable Law, Roche or its Affiliates (or to the extent permitted by the applicable sublicense, its Sublicensees) will appoint BPM or its designee as its exclusive distributor of such Reversion Products in the Roche Territory and grant BPM or its designee the right to appoint sub-distributors, until such time as all Regulatory Approvals in the Roche Territory have been transferred to BPM or its designee, but in no event longer than the one (1) year anniversary of the effective date of termination.

(d) Roche shall assign and transfer all Clinical Study agreements, to the extent such agreements have not been cancelled and are assignable without Roche paying any material consideration or commencing litigation in order to effect an assignment of any such agreement.

(e) BPM shall, upon transfer from Roche pursuant to this Section 21.3.1, have the right to disclose such filings, approvals and data to (i) governmental agencies of the country to the extent required or desirable to secure government approval for the development, manufacturing or sale of Reversion Product(s) in the country, (ii) Third Parties acting on behalf of BPM, its Affiliates or licensees, to the extent reasonably necessary for the Exploitation of Reversion Product(s) in the country, and (iii) Third Parties to the extent reasonably necessary to Exploit Reversion Product(s) in the country.

(f) Roche shall grant (without any further action required on the part of BPM) to BPM (a) an exclusive (even as to Roche), perpetual, irrevocable (except as set forth below), license, with the right to grant sublicenses through multiple tiers, under the Roche Patent Rights and Roche Know-How, including Roche's interest in the Joint Patent Rights and Joint Know-How, solely to the extent necessary to allow BPM, its Affiliates or licensees to Exploit the Reversion Product(s) in the Field in the terminated country(ies), and (b) a non-exclusive, worldwide, perpetual, irrevocable (except as set forth below) license, with the right to grant sublicenses through multiple tiers, under the Roche Patent Rights and Roche Know-How, including Roche's interest in the Joint Patent Rights and Joint Know-How,

solely to the extent necessary to allow BPM, its Affiliates or licensees to research, have researched, develop, have developed, use, have used, make, have made, import, have imported, export and have exported (including all research, development and manufacturing activities) Reversion Product(s) in the Field anywhere in the world in order to market, have marketed, distribute, have distributed, sell, have sold and offer for sale and have offered for sale (including all commercialization activities) such Reversion Product(s) in the Field in the terminated country(ies) (collectively, the "**Reversion License**"). Royalties would be payable by BPM to Roche on worldwide BPM Net Sales depending upon the stage of development of the applicable Reversion Product at the time of termination as set forth in the following table:

Stage of Development of the applicable Reversion Product on the effective date of termination	Royalty payable on portion of BPM Net Sales up to and including […***…]	Royalty payable on portion of BPM Net Sales greater than […***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]

Payments would be made by BPM to Roche in a manner analogous to that set forth in Section 12.9.1 and 12.9.3 (provided that BPM shall have no obligation to pay royalties to Roche for Net Sales of Reversion Products for Program 2 or Program 4 in the BPM Territory), including adjustments in a manner analogous to those set forth in Sections 12.9.4 - 12.9.6 and 12.9.8. Notwithstanding anything to the contrary in this Section 21.3.1(f), Roche will have the right to terminate the licenses granted to BPM in this Section 21.3.1(f) with respect to a Reversion Product in full upon one hundred and twenty (120) days' prior written notice to BPM in the event of any material breach by BPM of its payment obligations under this Section 21.3.1(f). Notwithstanding the foregoing, any such termination under this Section 21.3.1(f) will not be effective if such breach has been cured within one hundred and twenty (120) days after written notice thereof is given by Roche to BPM specifying the nature of the alleged breach.

For clarity, the Parties acknowledge and agree that with respect to any the Roche Patent Rights or Roche Know-How that is in-licensed by the Roche Group, BPM will be responsible for any payments due to a Third Party with respect thereto and BPM's rights will be subject to the terms of the applicable Third Party agreement. At BPM's written request, the Parties will enter into commercially reasonable prosecution and enforcement and defense terms for the Roche Patent Rights or Roche Know-How with respect to the Reversion Products, and BPM will bear the costs of such prosecution, enforcement and defense activities to the extent related to such Reversion Products.

(g) Roche will promptly transfer and assign to BPM all of Roche's and its Affiliates' rights, title and interests in and to Roche's Global Trademark(s) solely used to identify the Reversion Products (but not any house marks, or logos or any trademark of Roche or its Affiliates, containing the word "Roche" or any such Affiliate) owned by Roche and used for the Reversion Products in the Field.

(h) If BPM so requests, and to the extent permitted under Roche's obligations to Third Parties on the effective date of termination, Roche will transfer to BPM any Third Party agreements relating solely to the Exploitation of the Reversion Products to which Roche

is a party, subject to any required consents of such Third Party, which Roche will use Commercially Reasonable Efforts to obtain promptly.

(i) Roche will execute all documents and take all such further actions as may be reasonably requested by BPM in order to give effect to the foregoing clauses.

21.3.2 Termination by Roche for Breach by BPM or BPM Insolvency

Upon material breach by BPM or BPM's Insolvency, Roche shall have the right to terminate this Agreement in accordance with Section 21.2.1 or Section 21.2.2, as applicable.

If Roche exercises its aforementioned right to terminate, then, on the effective date of termination, (a) all rights and licenses granted to either Party under this Agreement with respect to such Collaboration Target(s) or Program(s) with terminate; (b) except as set forth in this Section 21.3.2, the rights and obligations of the Parties hereunder shall terminate with respect to such Terminated Target(s) as of the effective date of such termination; and (c) BPM will execute all documents and take all such further actions as may be reasonably requested by Roche in order to give effect to the foregoing clauses.

In the event of a material breach of this Agreement by BPM with respect to Program 2 or Program 4 (as applicable), then, following the expiration of all applicable notice and cure periods, and, if any dispute is initiated under Section 23.3.1 before the expiration of the applicable cure period with respect to the basis for the asserted basis of such termination, the confirmation by the arbitrators of the facts claimed by Roche to be the basis for termination under Section 21.2.1, Roche may elect, at its sole option, upon written notice to BPM that, in lieu of exercising its right to terminate this Agreement pursuant to Section 21.2.1 for Program 2 or Program 4 (as applicable), the licenses and other rights granted by BPM to Roche under this Agreement with respect to such Program remain in effect in accordance with their respective terms; provided, however, that (a) the Roche Territory for such Program shall mean all countries of the world, and Roche will be deemed granted all rights and obligations relating thereto, (b) Roche shall have the right to offset the full amount of any losses incurred by Roche as a result of such material breach by BPM with respect to such Program from any future payments relating to such Program due and payable to BPM under this Agreement, and (c) the Development Cost Share for such Program shall be 100% paid by Roche.

21.3.3 Sublicenses

Irrespective of anything to the contrary in this Agreement, any existing, sublicense granted by Roche to Third Parties under Section 2.1.2 or Section 2.1.3 of this Agreement (and any further sublicenses thereunder) shall, upon the written request of Roche, remain in full force and effect, provided that (i) such Third Party Sublicensee is not then in breach of its sublicense agreement (and, in the case of termination by BPM for breach by Roche, that such Third Party Sublicensee and any further sublicensees did not cause the breach that gave rise to the termination by BPM); and (ii) and such Third Party Sublicensee agrees to be bound to BPM under the terms and conditions of such sublicense agreement.

21.3.4 Other Obligations

21.3.4.1 Obligations Related to Ongoing Activities

If BPM does not provide a timely Continuation Election Notice, then each Party (a) shall have the right to cancel all ongoing obligations and (b) shall complete all non-cancellable obligations.

If BPM provides such timely Continuation Election Notice, then from the date of notice of termination until the effective date of termination, Roche shall continue all activities contemplated by this Agreement, including preparatory activities, ongoing as of the date of notice of termination. However, Roche shall not be obliged to initiate any new activities not ongoing at the date of notice of termination.

After the effective date of termination, neither Roche nor BPM shall have an obligation to perform and/or complete any activities except as expressly stated herein.

Notwithstanding the foregoing, in case of termination by BPM under Section 21.2.1, Section 21.2.2 or Section 21.2.5 or by Roche under Section 21.2.4, upon the request of BPM, Roche shall complete any Clinical Studies related to the Licensed Product(s) that are being conducted under its IND(s) for the Licensed Product(s) and are ongoing as of the effective date of termination; provided, however, that

(i) both BPM and Roche in their reasonable judgment have concluded that completing any such Clinical Studies does not present an unreasonable risk to patient safety; and

(ii) Roche shall have no obligation to recruit or enroll any additional patients after the date of termination;

(iii) Roche shall transfer all Clinical Studies to BPM as soon as practicable, and

(iv) BPM agrees to reimburse Roche for all of its Development Costs that arise after the effective date of termination in completing such Clinical Studies.

In the event that BPM does not elect to have Roche complete any Clinical Studies related to the Licensed Product(s) that are being conducted under Roche's IND(s) for the Licensed Product(s) and are ongoing as of the effective date of termination, then Roche will wind down such ongoing Clinical Studies, subject to the Parties' sharing any remaining Phase I Development Costs or Development Costs for such Clinical Studies.

21.3.4.2 Obligations Related to Manufacturing

a) Clinical Supplies

In the case of termination by BPM according to Section 21.2.1, Section 21.2.2 or Section 21.2.5 or by Roche under Section 21.2.4, if BPM elects to develop the Reversion Products, Roche shall transfer all existing and available clinical material to BPM at […***…] and upon the request of BPM. After such transfer is effectuated, (i) Roche shall have no obligation to perform any additional activities concerning the clinical supplies (*e.g.*, retesting, analyses) and (ii) BPM shall assume all liability for the use of such material. At BPM's request, immediately after notice of termination, Roche will cooperate to accelerate the transfer of the technology necessary to manufacture the clinical material to BPM or its designee as soon as practicable, and Roche will leverage its relationships with CROs to enable BPM to assume responsibility for manufacturing.

b) Commercial Supplies

In the case of termination by BPM according to Section 21.2.1 or Section 21.2.2 or by Roche under Section 21.2.4, if a Reversion Product is marketed in any country of Territory on the date of the notice of termination of this Agreement, upon the request of BPM, Roche shall manufacture and supply such Reversion Product to BPM for a period that shall not exceed […***…] from the effective date of the termination of this Agreement at […***…]. BPM shall use Commercially Reasonable Efforts to take over the manufacturing as soon as reasonably possible after the effective date of termination.

21.3.4.3 Ancillary Agreements
Unless otherwise agreed by the Parties, the termination of this Agreement shall cause the automatic termination of all ancillary agreements related hereto, including but not limited to the Manufacturing and Supply Agreement(s), if any, and the Pharmacovigilance Agreement.

21.3.4.4 Limitations on Grant-Backs; Transfer Expenses
For purposes of clarity, irrespective of anything to the contrary in this Agreement:

(a) All assignments, transfers and licenses from Roche to BPM or other obligations of Roche under Section 21.3 are solely with respect to Reversion Product(s) that are not Combination Product(s) or Companion Diagnostic(s). Such transfers, licenses and obligations do not extend to other therapeutically active ingredients or products, even if physically mixed, combined or packaged together with a Reversion Product, and even if a Reversion Product is intended (according to the investigation plan, proposed labeling or actual labeling, as applicable) for use with such other therapeutically active ingredients or products.

(b) In connection with research studies or Clinical Studies, Roche may have collected human samples and related clinical information for additional limited research and development programs ("**Samples**"). Legal and contractual restrictions may apply to such Samples, in particular as Samples may qualify as personal identifiable information. BPM acknowledges and accepts that notwithstanding anything herein, at the request of BPM and subject to BPM compensating Roche for all costs incurred by Roche in transferring such Samples, Roche shall use Commercially Reasonable Efforts to transfer any such Samples to BPM to the extent permitted under Applicable Law and consistent with Roche's business practices.

(c) Nothing in this Agreement shall be construed as granting BPM any license under the Excluded Patent Rights.

(d) Within thirty (30) days after the date of a Continuation Election Notice, BPM shall make a payment to Roche of […***…] as consideration for the transfer activities performed by Roche under Sections 21.3.1 and 21.3.4 ("**Roche Transfer Activities**"), which amount shall be creditable against any royalties payable by BPM to Roche pursuant to Section 21.3.1(f). Roche shall be under no obligation to provide Roche Transfer Activities prior to receipt of the Minimum Transfer Payment.

21.3.4.5 Royalty and Payment Obligations
Termination of this Agreement by a Party, for any reason, shall not release the other Party from any obligation to pay royalties or make any other payments that are payable prior to the effective date of termination. However, termination of this Agreement by a Party, for any reason, will release a Selling Party from any obligation to pay royalties or make any payments to the Non-Selling Party that would otherwise become payable on or after the effective date of termination.

21.4 Survival
Last sentence of Section 2.1.4 (Licenses), last paragraph of Section 3.1.3 (Option Right), Section 16.1 (Ownership of Inventions), Section 16.2 (Patent Rights Owned Jointly), Section 16.3 (German Statute on Employee's Inventions), Section 16.9 (CREATE Act), Section 16.12 (Common Interest Disclosures), Section 17.10 (No Other Representations), Section 21.3 (Consequences of Termination), and Section 21.4 (Survival); Article 1 (Definitions, but only to the extent necessary to interpret the Agreement), Article 12 (Payment, but only with respect to any payments accrued thereunder prior to expiration or termination), Article 13 (Accounting and

Reporting, but only with respect to any payments accrued thereunder prior to expiration or termination), Article 14 (Taxes), Article 15 (Auditing), Article 18 (Indemnification), Article 19 (Liability), Article 20 (Obligation Not to Disclose Confidential Information), Article 22 (Bankruptcy), and Article 23 (Miscellaneous) shall survive any expiration or termination of this Agreement for any reason. Expiration or termination of this Agreement for any reason will not relieve the Parties of any liability or obligation which accrued hereunder prior to the effective date of such termination or expiration, nor preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity, with respect to any breach of this Agreement. For the avoidance of doubt, termination of this Agreement will not affect any Pharmacovigilance Agreement, which will continue to survive so long as any Licensed Products thereunder are being commercialized.

22. Bankruptcy

All licenses (and to the extent applicable rights) granted under or pursuant to this Agreement by a Party to the other are, and shall otherwise be deemed to be, for purposes of Section 365(n) of Title 11, US Code (the "**Bankruptcy Code**") licenses of rights to "intellectual property" as defined under Section 101(35A) of the Bankruptcy Code. Unless Roche elects to terminate this Agreement, the Parties agree that the Parties and their respective Sublicensees, as a licensees or sublicensees of such rights under this Agreement, shall retain and may fully exercise all of their rights and elections under the Bankruptcy Code (or any foreign counterpart thereto), subject to the continued performance of its obligations under this Agreement.

23. Miscellaneous

23.1 Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without reference to its conflict of laws principles, and shall not be governed by the United Nations Convention of International Contracts on the Sale of Goods (the Vienna Convention).

23.2 Disputes

Unless otherwise set forth in this Agreement, in the event of any dispute in connection with this Agreement, such dispute shall be referred to the respective executive officers of the Parties designated below or their designees, for good faith negotiations attempting to resolve the dispute. The designated executive officers are as follows:

For BPM: Chief Executive Officer
For Roche: Head of Roche Partnering

23.3 Arbitration

Except as otherwise expressly set forth in this Agreement (including with respect to any matters that are determined by Expedited Arbitration, Expert or Expert Committee), should the Parties fail to agree within two (2) months after such dispute has first arisen, it shall be finally settled by arbitration in accordance with the Rules of American Arbitration Association ("**AAA**") as in force at the time when initiating the arbitration. The tribunal shall consist of three (3) arbitrators. The place of arbitration shall be New York City, New York, US and the arbitration will be governed by the Laws of the State of New York. The language to be used shall be English. Documents submitted in the arbitration (the originals of which are not in English) shall be submitted together with an English translation.

23.3.1 Arbitrators

Each Party shall nominate one arbitrator who are retired judges or attorneys with at least ten (10) years of relevant experience in the pharmaceutical or biotechnology industry, each of whom will be impartial and independent. Should the claimant fail to appoint an arbitrator in the request for arbitration within thirty (30) days of being requested to do so, or if the respondent should fail to appoint an arbitrator in its answer to the request for arbitration within thirty (30) days of being requested to do so, the other Party shall request the AAA to make such appointment.

The arbitrators nominated by the Parties shall, within thirty (30) days from the appointment of the arbitrator nominated in the answer to the request for arbitration, and after consultation with the Parties, agree and appoint a third arbitrator, who will act as a chairman of the three arbitrator committee (the "**Arbitral Tribunal**"). Should such procedure not result in an appointment within the thirty (30) day time limit, either Party shall be free to request the AAA to appoint the third arbitrator.

Where there is more than one (1) claimant and/or more than one (1) respondent, the multiple claimants or respondents shall jointly appoint one (1) arbitrator.

If any Party-appointed arbitrator or the third arbitrator resigns or ceases to be able to act, a replacement shall be appointed in accordance with the arrangements provided for in this clause.

23.3.2 Decisions; Timing of Decisions

The arbitrators shall render a written opinion setting forth findings of fact and conclusions of law with the reason therefor stated, within no later than six (6) months from the date on which the arbitrators were appointed to the dispute. A transcript of the evidence adduced at the arbitration hearing shall be made and, upon request, shall be made available to each Party.

The time periods set forth in the AAA Arbitration Rules shall be followed; provided however that the arbitrators may modify such time periods as reasonably necessary to render a written opinion in accordance with this Section 23.3.2.

The Arbitrator is empowered to award any remedy allowed by law, including money damages, prejudgment interest and attorneys' fees, and to grant final, complete, interim, or interlocutory relief, including injunctive relief.

This arbitration agreement does not preclude either Party seeking conservatory or interim measures from any court of competent jurisdiction including, without limitation, the courts having jurisdiction by reason of either Party's domicile. Conservatory or interim measures sought by either Party in any one or more jurisdictions shall not preclude the Arbitral Tribunal granting conservatory or interim measures. Conservatory or interim measures sought by either Party before the Arbitral Tribunal shall not preclude any court of competent jurisdiction granting conservatory or interim measures.

In the event that any issue shall arise which is not clearly provided for in this Section 23.3, the matter shall be resolved in accordance with the AAA Arbitration Rules.

Any arbitration proceeding hereunder shall be confidential and the arbitrators shall issue appropriate protective orders to safeguard each Party's Confidential Information. Except as required by Applicable Law or in a proceeding to enforce the results of the arbitration, neither

Party shall make (or instruct the arbitrators to make) any public announcement with respect to the proceedings or decision of the arbitrators without prior written consent of the other Party. The existence of any dispute submitted to arbitration, and the award, shall be kept in confidence by the Parties and the arbitrators, except as required in connection with the enforcement of such award or as otherwise required by Applicable Law.

Notwithstanding anything to the contrary in this Agreement, any and all issues regarding the scope, construction, validity and/or enforceability of any Patent Rights shall be determined in a court of competent jurisdiction under the local patent laws of the jurisdictions having issued the Patent Rights in question.

Notwithstanding anything to the contrary in this Agreement, any and all issues regarding a breach or alleged breach of a Party's obligations under Article 20 (Obligation Not to Disclose Confidential Information) shall be determined in a court of competent jurisdiction under the laws of the State of New York, with express exclusion of its conflict of laws principles.

Fees, costs and expenses of arbitration are to be divided by the Parties in the following manner: BPM will pay for the arbitrator it chooses, Roche will pay for the arbitrator it chooses, and the Parties will share payment for the third arbitrator.

23.3.3 Expedited Arbitration

If a Party exercises its rights under this Agreement to refer a dispute to expedited arbitration (an "**Expedited Dispute**"), then the Parties will follow the expedited dispute resolution process in this Section 23.3.3 (and not the dispute resolution process at the beginning of this Section 23.3 of this Agreement) ("**Expedited Arbitration**"). The Parties agree and acknowledge that any good faith dispute under Expedited Arbitration will not be deemed to be a material breach of this Agreement.

The Expedited Dispute will be submitted to fast-track, binding arbitration in accordance with the following:

(a) Arbitration will be conducted in New York, New York under the rules of the AAA for the resolution of commercial disputes in the most expedited manner permitted by such rules. The arbitration will be heard and determined by three (3) arbitrators, each of whom will be impartial and independent. Each Party will appoint one (1) arbitrator and the third (3rd) arbitrator will be selected by the two (2) Party-appointed arbitrators, or, failing agreement regard the selection of such third (3rd) arbitrator within thirty (30) days following appointment of the second arbitrator, the third (3rd) arbitrator will be selected by the AAA. Each arbitrator will be a professional in business or licensing experienced in the valuation of biopharmaceutical products with at least ten (10) years of experience in the pharmaceutical and life sciences industries, including the conduct of research, development and commercialization collaborations. The cost of the arbitration will be borne equally by the Parties. Except in a proceeding to enforce the results of the arbitration or as otherwise required by Applicable Laws, neither Roche nor BPM nor any arbitrator may disclose the existence, content or results of any arbitration hereunder without the prior written agreement of Roche and BPM.

(b) Within thirty (30) days after such matter is referred to arbitration, each Party will provide the arbitrators with a proposal and written memorandum in support of its position regarding the Expedited Dispute, as well as any documentary evidence it wishes to provide in support thereof

(each a "**Brief**") and the arbitrators will provide each Party's Brief to the other Party after it receives it from both Parties.

(c) Within thirty (30) days after a Party submits its Brief, the other Party will have the right to respond thereto. The response and any material in support thereof will be provided to the arbitrators and the other Party.

(d) The arbitrators will have the right to meet with the Parties as necessary to inform the arbitrators' determination and to perform independent research and analysis. Within thirty (30) days of the receipt by the arbitrators of both Parties' responses (or expiration of the thirty (30) day period if any Party fails to submit a response), the arbitrators will deliver their decision regarding the Expedited Dispute in writing; provided that the arbitrators will select one of the resolutions proposed by the Parties. Notwithstanding anything herein to the contrary, the Parties shall have the right to terminate such Expedited Arbitration in accordance with Section 2.2 or upon mutual agreement prior to delivery of the arbitrators' decision.

23.4 Assignment

Except as provided in this Section 23.4, neither Party shall have the right to assign or otherwise transfer this Agreement or any part thereof, or its rights or obligations under this Agreement absent the prior written consent of the other Party. Notwithstanding the foregoing, either Party may, without the other Party's written consent, assign this Agreement and its rights and obligations hereunder in whole or in part to any of its Affiliates in whole or to a party that acquires, by or otherwise in the context of a merger, acquisition, sale, reorganization, consolidation, Change of Control or other transaction involving all or substantially all of the assets of the business of the assigning Party to which the subject matter of this Agreement relates. Any permitted assignment shall be binding on the successors of the assigning Party. Any purported assignment in violation of this Section 23.4 will be void and of no force and effect.

23.5 Debarment

Each Party represents and warrants that it has never been debarred under 21 U.S.C. §335a, disqualified under 21 C.F.R. §312.70 or §812.119, sanctioned by a Federal Health Care Program (as defined in 42 U.S.C §1320 a-7b(f)), including without limitation the federal Medicare or a state Medicaid program, or debarred, suspended, excluded or otherwise declared ineligible from any other similar Federal or state agency or program. In the event a Party receives notice of debarment, suspension, sanction, exclusion, ineligibility or disqualification under the above-referenced statutes, such Party shall immediately notify the other Party in writing and such other Party shall have the right, but not the obligation, to terminate this Agreement, effective, at such other Party's option, immediately or at a specified future date.

23.6 Independent Contractor

No employee or representative of either Party shall have any authority to bind or obligate the other Party to this Agreement for any sum or in any manner whatsoever or to create or impose any contractual or other liability on the other Party without said Party's prior written approval. For all purposes, and notwithstanding any other provision of this Agreement to the contrary, each Party's legal relationship to the other Party under this Agreement shall be that of independent contractor, and nothing contained in this Agreement shall be deemed or construed to create a partnership, joint venture, employment, franchise, agency or fiduciary relationship between the Parties.

23.7 Unenforceable Provisions and Severability

If any of the provisions of this Agreement are held to be void or unenforceable, then such void or unenforceable provisions shall be replaced by valid and enforceable provisions that will achieve

as far as possible the economic business intentions of the Parties. However the remaining provisions of this Agreement will remain in full force and effect, provided that the material interests of the Parties are not affected, i.e. the Parties would presumably have concluded this Agreement without the unenforceable provisions.

23.8 Waiver

The failure by either Party to require strict performance and/or observance of any obligation, term, provision or condition under this Agreement will neither constitute a waiver thereof nor affect in any way the right of the respective Party to require such performance and/or observance. The waiver by either Party of a breach of any obligation, term, provision or condition hereunder shall not constitute a waiver of any subsequent breach thereof or of any other obligation, term, provision or condition.

23.9 Appendices

All Appendices to this Agreement shall form an integral part to this Agreement.

23.10 Entire Understanding

This Agreement, together with the Pharmacovigilance Agreement and any supply agreement entered into the Parties in connection with this Agreement, contains the entire understanding between the Parties hereto with respect to the within subject matter and supersedes any and all prior agreements, understandings and arrangements, whether written or oral, including, effective as of the Effective Date, that Non-Disclosure Agreement between BPM and Roche, effective as of February 9, 2015, as amended by First Amendment, dated May 1, 2015 (provided that all information disclosed or exchanged under such agreement will be treated as Confidential Information hereunder).

23.11 Amendments

No amendments of the terms and conditions of this Agreement, including the Appendices attached hereto, shall be binding upon either Party hereto unless in writing and signed by both Parties.

23.12 Invoices

All invoices that are required or permitted hereunder shall be in writing and sent by BPM to Roche at the following address or such other address as Roche may later provide:

F. Hoffmann-La Roche Ltd
Kreditorenbuchhaltung
Grenzacherstrasse 124
4070 Basel
Switzerland

23.13 Notice

All notices that are required or permitted hereunder shall be in writing and sufficient if delivered personally, sent by facsimile (and promptly confirmed by personal delivery, registered or certified mail or overnight courier), sent by nationally recognized overnight courier or sent by registered or certified mail, postage prepaid, return receipt requested, addressed as follows:

if to BPM, to:	Blueprint Medicines Corporation 38 Sidney Street, Suite 200 Cambridge, Massachusetts 02139 U.S.A. Attn: Chief Executive Officer Facsimile No.: + 1 617 374-7588
and:	Attn: Legal Department Facsimile No.: + 1 617 374-7588
if to Roche, to:	F. Hoffmann-La Roche Ltd Grenzacherstrasse 124 4070 Basel Switzerland Attn: Legal Department Facsimile No.: +41 61 688 13 96
and:	Hoffmann-La Roche Inc. 150 Clove Road Suite 8 Little Falls, New Jersey 07424 U.S.A. Attn. Corporate Secretary Facsimile No.: +1 973 890-8433

or to such other address as the Party to whom notice is to be given may have furnished to the other Party in writing in accordance herewith. Any such notice will be deemed to have been given: (a) when delivered if personally delivered on a Business Day (or if delivered or sent on a non-Business Day, then on the next Business Day); (b) on the Business Day of receipt if sent by overnight courier or facsimile; or (c) on the Business Day of receipt if sent by mail.

23.14 Counterparts

This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or other electronic signature) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

23.15 Performance by Affiliates

Each Party acknowledges and accepts that the other Party may exercise its rights and perform its obligations (including granting or continuing licenses and other rights) under this Agreement either directly or through one or more of its Affiliates. A Party's Affiliates will have the benefit of all rights (including all licenses and other rights) of such Party under this Agreement, but not be subject to such Party's obligation, unless expressly provided herein, or in the case of a permitted assignment, in accordance with Section 23.4. Accordingly, in this Agreement "Roche" will be interpreted to mean "Roche or its Affiliates" and "BPM" will be interpreted to mean "BPM or its Affiliates" where necessary to give each Party's Affiliates the benefit of the rights provided to such Party in this Agreement and the ability to perform its obligations (including granting or continuing

licenses and other rights) under this Agreement; provided, however, that in any event each Party will remain responsible for the acts and omissions, including financial liabilities, of its Affiliates.

23.16 Force Majeure

Neither Party will be held liable to the other Party nor be deemed to have defaulted under or breached this Agreement for failure or delay in performing any obligation under this Agreement to the extent that such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party, potentially including embargoes, war, acts of war (whether war be declared or not), insurrections, riots, civil commotions, strikes, lockouts or other labor disturbances, fire, earthquakes, floods, or other acts of God. The affected Party will notify the other Party of such force majeure circumstances as soon as reasonably practical, and will promptly undertake all reasonable efforts necessary to cure such force majeure circumstances and resume performance of its obligations hereunder.

23.17 Compliance with Export Regulations

Neither Party will export any technology licensed to it by the other Party under this Agreement except in compliance with U.S. export Laws and regulations.

23.18 Interpretation

Except where the context expressly requires otherwise, (a) the use of any gender herein will be deemed to encompass references to either or both genders, and the use of the singular will be deemed to include the plural (and vice versa); (b) the words “include”, “includes” and “including” will be deemed to be followed by the phrase “without limitation” and will not be interpreted to limit the provision to which it relates; (c) the word “shall” will be construed to have the same meaning and effect as the word “will”; (d) any definition of or reference to any agreement, instrument or other document herein will be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein); (e) any reference herein to any Person will be construed to include the Person’s successors and assigns; (f) the words “herein”, “hereof” and “hereunder”, and words of similar import, will be construed to refer to this Agreement in each of their entirety, as the context requires, and not to any particular provision hereof; (g) all references herein to Articles, Sections, Exhibits or Schedules will be construed to refer to Articles, Sections, Exhibits or Schedules of this Agreement, and references to this Agreement include all Exhibits and Schedules hereto; (h) the word “notice” means notice in writing (whether or not specifically stated) and will include notices, consents, approvals and other written communications contemplated under this Agreement; (i) provisions that require that a Party, the Parties or any committee hereunder “agree,” “consent” or “approve” or the like will require that such agreement, consent or approval be specific and in writing, whether by written agreement, letter, approved minutes or otherwise (but excluding e-mail and instant messaging); (j) references to any specific law, rule or regulation, or article, section or other division thereof, will be deemed to include the then-current amendments thereto or any replacement or successor law, rule or regulation thereof; and (k) the term “or” will be interpreted in the inclusive sense commonly associated with the term “and/or”.

23.19 Waiver of Rule of Construction

Each Party has had the opportunity to consult with counsel in connection with the review, drafting and negotiation of this Agreement. Accordingly, the rule of construction that any ambiguity in this Agreement will be construed against the drafting Party will not apply.

23.20 Headings

The captions to the Sections hereof are not a part of this Agreement, but are merely for convenience to assist in locating and reading the several Sections hereof.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the Effective Date.

Blueprint Medicines Corporation

/s/ Jeffrey Albers

Name: Jeffrey Albers

Title: Chief Executive Officer

F. Hoffmann-La Roche Ltd

/s/ Vikas Kabra

Name: Vikas Kabra

Title: Head of Transaction Excellence

/s/ Stefan Arnold

Name: Stefan Arnold

Title: Head Legal Pharma

Hoffmann-La Roche Inc.

/s/ John P. Parise

Name: John P. Parise

Title: Authorized Signatory

Appendix 1.9

BPM Patent Rights

[…***…]

Appendix 1.18

CCS Criteria

[…***…]

Property	Minimum Acceptable
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	
[…***…]	[…***…]

Appendix 1.23

CLS Criteria

Property	Criteria/Purpose
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[…***…]	[…***…]
[…***…]	[…***…]
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[…***…]	[…***…]
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Appendix 1.38

Approved CROs

[…***…]

Appendix 1.44

Excluded Targets

[…***…]

Appendix 1.72

Lead Series Identified Criteria

Properties	Criteria/Purpose
[…***…]	
	[…***…]
[…***…]	
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[…***…]	[…***…]

Appendix 1.81

Option Data Package

Categories of information:

[…***…]

Appendix 1.114

Excluded Patent Rights

[…***…], which means (a) U.S. Patent No. […***…], issued […***…], and any and all patents issuing from divisionals, continuations, or continuations-in part of any application from which U.S. Patent No. […***…] claims priority, as well as reissues, reexaminations, extensions, and foreign patent counterparts, including inventors certificates, of any of the foregoing, and including any related supplemental protection certificates; and (b) U.S. Patent No. […***…], issued […***…], and any and all patents issuing from divisionals, continuations, or continuations-in-part of any application from which U.S. Patent No. […***…] claims priority, as well as reissues, reexaminations, extensions, and foreign patent counterparts, including inventors certificates, of any of the foregoing, and including any related supplemental protection certificates.

[…***…], which means any of the U.S. patents listed below and any and all patents issuing from divisionals, continuations or continuations-in-part, and any reissues, reexaminations or extensions, of these patents or of any application from which these U.S. patents claim priority, as well as foreign counterparts, including inventors certificates, of the foregoing, and including any related supplemental protection certificates:

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

[…***…], which means any of the U.S. patents/patent application listed below and any and all patents issuing from divisionals, continuations or continuations-in-part, and any reissues, reexaminations or extensions, of these patents or of any application from which these U.S. patents claim priority, as well as foreign counterparts, including inventors certificates, of the foregoing, and including any related supplemental protection certificates:

U.S. Patent No. […***…]

U.S. Patent No. […***…]

U.S. Patent No. […***…]

[…***…], which means the following U.S. patent and any and all divisionals, continuations, continuations-in-part of any application from which these U.S patents claim priority, including reissues, reexaminations or extensions of these patents and foreign counterparts and supplementary protection certificates of the foregoing:

U.S. Patent No. […***…]

Appendix 4.1.5

Roche Senior Management

Global Head of Therapeutic Modalities

Global Head of Medicinal Chemistry

Global Head of Molecular Targeted Therapies in Oncology Discovery

Global Head of Oncology Discovery (Oncology DTA)

Appendix 20.3

Form of Press Release

[Attached]

Blueprint Medicines Announces Worldwide Collaboration to Accelerate and Expand its Development of Novel Medicines in the Field of Cancer Immunotherapy

— Collaboration Combines Blueprint Medicines' Proprietary Drug Discovery Platform and Immunokinase Expertise with Roche's Cancer Immunotherapy Expertise —

— Blueprint Medicines to Receive $45 Million Upfront Payment and is Eligible to Receive Additional Contingent Fees and Milestone Payments—

— Blueprint Medicines to Host Conference Call Today at 8:00 A.M. ET —

CAMBRIDGE, Mass., March 15, 2016 – Blueprint Medicines Corporation (NASDAQ: BPMC), a leader in discovering and developing highly selective kinase medicines for patients with genomically defined diseases, today announced that it has entered into a worldwide collaboration and exclusive license agreement with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc. (collectively, Roche) for the discovery, development and commercialization of up to five small molecule therapeutics targeting kinases believed to be important in cancer immunotherapy.

Under the terms of the agreement, Blueprint Medicines will receive an upfront cash payment of $45 million and will be eligible to receive up to an additional approximately $965 million in contingent option fees and milestone payments related to specified research, preclinical, clinical, regulatory and sales-based milestones across all five potential programs. Of the total contingent payments, up to approximately $215 million are for option fees and milestone payments for research, preclinical and clinical development events prior to licensing across all five potential programs. In addition, the agreement provides for specified royalties and cost sharing, which are described in more detail below.

Immunokinases are intracellular targets known to regulate numerous aspects of immune response and represent an important opportunity for potentially innovative approaches to enhance the immune system's ability to recognize and eradicate tumor cells. To date, cancer immunotherapies have demonstrated important clinical benefits. However, most cancer immunotherapies have focused on antibodies or combinations with existing approved therapies and have not yet targeted immunokinases with small molecules. This collaboration seeks to develop new mechanisms of modulating the tumor immune response by targeting immunokinases with the goal of enhancing response rates and broadening the utility of using cancer immunotherapies to treat additional cancer types.

"We believe Blueprint Medicines' proprietary drug discovery platform and expertise in immunokinases, combined with our proven ability to move quickly through drug discovery, is a perfect complement to Roche's expertise with cancer immunotherapy biology and in developing and commercializing innovative therapies," said Jeff Albers, Chief Executive Officer of Blueprint Medicines. "Under this collaboration, Blueprint Medicines will lead preclinical research and development through Phase 1 proof of concept for all five programs and retain U.S. commercial rights for two programs. We believe this highly collaborative relationship will enable us to accelerate our efforts in the emerging field of cancer immunotherapy and to continue building a leading biotechnology company."

The collaboration provides for the worldwide development and commercialization of immunokinases in the field of cancer immunotherapy for up to five small molecule drug candidates as single products or possibly in combination with Roche's portfolio of therapeutics. Roche's rights are structured as an option, triggered upon achievement of Phase I proof-of-concept, for an exclusive license to each drug candidate developed under the collaboration. Blueprint Medicines will be primarily responsible for preclinical research and conduct of clinical development for each

program prior to any exercise of Roche's option for such program. If Roche exercises an option for a program, Roche will be responsible for subsequent global development for that program through registrational clinical trials. For up to three of the five programs, if Roche exercises its option, Roche will receive worldwide commercialization rights for the licensed product. For up to two of the five programs, if Roche exercises its option, Blueprint Medicines will retain commercialization rights in the United States for the licensed product, and Roche will receive commercialization rights outside of the United States for such licensed product. Blueprint Medicines will also retain worldwide rights to any drug candidates for which Roche elects not to exercise the applicable option.

For any licensed product for which Roche retains worldwide commercialization rights, Blueprint Medicines will be eligible to receive tiered royalties ranging from low double-digits to high-teens on future net sales of the licensed product. For any licensed product for which Blueprint Medicines retains commercialization rights in the United States, Blueprint Medicines and Roche will be eligible to receive tiered royalties ranging from mid-single-digits to low double-digits on future net sales in the other party's respective territories in which it commercializes the licensed product. Blueprint Medicines and Roche will share the costs of Phase 1 development for each collaboration target. In addition, Roche will be responsible for post-Phase 1 development costs for each licensed product for which it retains global commercialization rights, and Blueprint Medicines and Roche will share post-Phase 1 development costs for each licensed product for which Blueprint Medicines retains commercialization rights in the United States.

Conference Call Information

Blueprint Medicines will host a conference call and live audio webcast for investors at 8:00 A.M. ET today. To participate in the conference call, please dial 877-516-3348 (domestic) or 281-973-6089 (international) and refer to conference ID 63223687. A live webcast of the conference call will be available by visiting the Investors section of Blueprint Medicines' website at http://ir.blueprintmedicines.com. The archived webcast will be available on Blueprint Medicines' website approximately 2 hours after the call and will be available for 30 days following the call.

About Blueprint Medicines

Blueprint Medicines is developing a new generation of highly selective and potent kinase medicines to improve the lives of patients with genomically defined diseases. The Company's approach is rooted in a deep understanding of the genetic blueprint of cancer and other diseases driven by the abnormal activation of kinases. Blueprint Medicines is advancing three programs in clinical development for subsets of patients with gastrointestinal stromal tumors, hepatocellular carcinoma and systemic mastocytosis, as well as multiple programs in research and preclinical development. For more information, please visit www.blueprintmedicines.com.

Cautionary Note Regarding Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, without limitation, statements regarding the collaboration and license agreement among Blueprint Medicines and Roche, including anticipated payments, as well as the future development, manufacture and commercialization of cancer immunotherapies under the agreement; Blueprint Medicines' and Roche's ability to successfully develop and commercialize cancer immunotherapies; and Blueprint Medicines' strategy and business plans. The words "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "project," "potential,"

“continue,” “target” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward-looking statements in this press release are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including, without limitation, risks and uncertainties related to the delay of any current or planned clinical trials or the development of Blueprint Medicines' drug product candidates, including BLU-285 and BLU-554; Blueprint Medicines' advancement of multiple early-stage efforts; Blueprint Medicines' ability to successfully demonstrate the efficacy and safety of its drug product candidates; the preclinical and clinical results for Blueprint Medicines' drug product candidates, which may not support further development of such drug product candidates; and actions of regulatory agencies, which may affect the initiation, timing and progress of clinical trials. These and other risks and uncertainties are described in greater detail in the section entitled “Risk Factors” in Blueprint Medicines' Annual Report on Form 10-K for the year ended December 31, 2015, as filed with the Securities and Exchange Commission (SEC) on March 11, 2016, and other filings that Blueprint Medicines may make with the SEC in the future. Any forward-looking statements contained in this press release represent Blueprint Medicines' views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date. Blueprint Medicines explicitly disclaims any obligation to update any forward-looking statements.

Contact:

Investor Relations:
Kristin Williams
Blueprint Medicines Corporation
617-714-6674
KWilliams@blueprintmedicines.com

Media Relations:
Dan Quinn
Ten Bridge Communications, Inc.
781-475-7974
dan@tenbridgecommunications.com

AMENDMENT TO COLLABORATION AND LICENSE AGREEMENT

This Amendment, effective April 15, 2016 ("**Effective Date**"), is by and between F. Hoffmann-La Roche Ltd, with an office and place of business at Grenzacherstrasse 124, 4070 Basel, Switzerland and Hoffmann-La Roche Inc., with an office and place of business at 150 Clove Road, Suite 8, Little Falls, New Jersey 07424, U.S.A. (together referred to as "**Roche**") and Blueprint Medicines, located at 38 Sidney Street, Cambridge, Massachusetts 02139 ("**Blueprint**").

WHEREAS, Blueprint and Roche entered into a Collaboration and License Agreement dated March 14, 2016 ("Agreement");

NOW THEREFORE, Roche and Blueprint hereby agree as follows:

The 5th paragraph of Section 4.1.5 of the Agreement shall be deleted in its entirety and replaced by the following:

Two chemistry experts at Roche ("Insulated Chemistry Experts") shall be designated in writing by Roche to review structures of Other Compounds and Collaboration Compounds at the start of the collaboration and throughout the Lead Nomination phase. The Insulated Chemistry Experts shall independently handle the structural information and no structures provided by BPM to the Insulated Chemistry Experts can be shared with any other individuals within Roche other than members of senior management specified on Appendix 4.1.5 acting in their decision making capacity. For clarity, these structures cannot be used for any other purpose, including any research purpose. Appropriate safeguards will be established by Roche that are intended to prevent any inadvertent disclosure or improper use of these structures and any structural information related to such structures. From Lead Nomination onwards and throughout Lead Optimization, the structures of Other Compounds and Collaboration Compounds in the Lead Optimization phase shall be shared with the Roche project team members (including Collaboration Compounds meeting Lead Series Identified Criteria, CLS Criteria and CCS Criteria).

All other terms defined in the Agreement are to be interpreted as defined therein, and all other terms of the Agreement are to remain in full force and effect.

This Amendment may be executed in counterparts, each of which shall be deemed an original, but both of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed by their duly authorized representatives.

Blueprint Medicines Corporation

/s/ Jeffrey Albers

Name: Jeffrey Albers

Title: Chief Executive Officer and President

F. Hoffmann-La Roche Ltd

/s/ Stefan Arnold

Name: Stefan Arnold

Title: Head Legal Pharma

/s/ Barbara Lueckel

Name: Dr. Barbara Lueckel

Title: Head of Research & Technologies Partnering

Hoffmann-La Roche Inc.

/s/ John P. Parise

Name: John P. Parise

Title: Authorized Signatory

Exhibit 31.1

CERTIFICATIONS

I, Jeffrey W. Albers, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Blueprint Medicines Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 10, 2016

By: /s/ Jeffrey W. Albers
Jeffrey W. Albers
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

I, Michael Landsittel, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Blueprint Medicines Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 10, 2016

By: /s/ Michael Landsittel
Michael Landsittel
Vice President of Finance
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Blueprint Medicines Corporation (the "Company") for the period ended March 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company hereby certifies, pursuant to 18 U.S.C. Section 1350, that to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 10, 2016

By: /s/ Jeffrey W. Albers
Jeffrey W. Albers
President and Chief Executive Officer
(Principal Executive Officer)

Date: May 10, 2016

By: /s/ Michael Landsittel
Michael Landsittel
Vice President of Finance
(Principal Financial and Accounting Officer)