



BLUEPRINT MEDICINES CORPORATION
45 Sidney Street
Cambridge, Massachusetts 02139
(617) 374-7580

NOTICE OF 2018 ANNUAL MEETING OF STOCKHOLDERS

To Be Held On June 20, 2018

Dear Stockholders:

You are cordially invited to attend the 2018 annual meeting of stockholders of Blueprint Medicines Corporation to be held on Wednesday, June 20, 2018 at 3:00 p.m., Eastern Daylight Time, at our offices located at 45 Sidney Street, Cambridge, Massachusetts 02139. At the annual meeting, stockholders will consider and vote on the following matters:

1. The election of three Class III directors nominated by our board of directors, each to serve for a three-year term expiring at the 2021 annual meeting of stockholders or until his or her successor has been duly elected and qualified;
2. To approve an advisory vote on the compensation paid to our named executive officers;
3. To hold an advisory vote on the frequency of future advisory votes on the compensation paid to our named executive officers;
4. The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ended December 31, 2018; and
5. The transaction of any other business that may properly come before the annual meeting or any adjournment or postponement thereof.

The foregoing items of business are more fully described in the proxy statement accompanying this notice.

Stockholders of record at the close of business on April 23, 2018 will be entitled to notice of and to vote at the annual meeting or any adjournment or postponement thereof.

We have elected to provide access to our proxy materials over the Internet under the Securities and Exchange Commission's "notice and access" rules. We believe that providing our proxy materials over the Internet expedites stockholders' receipt of proxy materials, lowers costs and reduces the environmental impact of our annual meeting.

We encourage all stockholders to attend the annual meeting in person. However, whether or not you plan to attend the annual meeting in person, we encourage you to read this proxy statement and submit your proxy or voting instructions as soon as possible. Please review the instructions on each of your voting options described in the proxy statement.

Thank you for your ongoing support and continued interest in Blueprint Medicines Corporation.

By Order of the Board of Directors,

A handwritten signature in black ink, appearing to read "Jeffrey Albers", written over a horizontal line.

Jeffrey W. Albers
President and Chief Executive Officer

Cambridge, Massachusetts
April 27, 2018

Important Notice Regarding Internet Availability of Proxy Materials: This proxy statement and our 2017 annual report to stockholders are available at www.proxyvote.com. These documents are also available to any stockholder who wishes to receive a paper copy by calling 1-800-579-1639, by emailing sendmaterial@proxyvote.com or by submitting a request over the Internet at www.proxyvote.com.

TABLE OF CONTENTS

INFORMATION CONCERNING SOLICITATION AND VOTING	1
IMPORTANT INFORMATION ABOUT THE ANNUAL MEETING AND VOTING	2
PROPOSAL 1—ELECTION OF DIRECTORS.....	7
Information Regarding Directors.....	7
Class III Director Nominees—For a Three-Year Term Expiring at the 2021 Annual Meeting of Stockholders ..	8
Class I Directors—Term Expiring at the 2019 Annual Meeting of Stockholders.....	9
Class II Directors—Term Expiring at the 2020 Annual Meeting of Stockholders	9
Recommendation of the Board of Directors	11
CORPORATE GOVERNANCE	12
General	12
Code of Business Conduct and Ethics and Corporate Governance Guidelines	12
Board Leadership Structure and Risk Oversight	12
Board Leadership Structure	12
Risk Oversight	12
Board Determination of Independence	13
Board of Director Meetings and Attendance	13
Communicating with the Board of Directors	14
Committees of the Board of Directors.....	14
Audit Committee	14
Compensation Committee	15
Nominating and Corporate Governance Committee	15
Research and Development Committee	15
Director Nomination Process.....	16
Criteria and Diversity.....	16
Stockholder Nominations	16
EXECUTIVE OFFICERS	17
EXECUTIVE COMPENSATION	19
Compensation Discussion and Analysis	19
Executive Summary	19
Compensation Objectives and Philosophy	21
Overview of Executive Compensation Process	22
Defining and Comparing Compensation to Market Benchmarks	23
Executive Compensation Elements.....	24
2018 Executive Compensation	29
Base Salary Compensation for Our Named Executive Officers in 2018	29
Cash Incentive Compensation for Our Named Executive Officers in 2018.....	29

Summary Compensation Table	30
Grants of Plan-Based Awards	31
Outstanding Equity Awards at Fiscal Year-End	32
Option Exercises and Stock Vested	33
Employment, Severance and Change in Control Arrangements	33
Potential Payments Upon Termination or Change in Control	34
Other Agreements	35
Limitation of Liability and Indemnification	35
Compensation Committee Interlocks and Insider Participation	36
Compensation Committee Report	36
CEO PAY RATIO DISCLOSURE	37
Pay Ratio Disclosure	37
Methodology	37
DIRECTOR COMPENSATION	38
SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS	40
REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS	41
PROPOSAL 2—ADVISORY VOTE ON EXECUTIVE COMPENSATION	42
Recommendation of the Board of Directors	42
PROPOSAL 3—ADVISORY VOTE ON THE FREQUENCY OF FUTURE EXECUTIVE COMPENSATION ADVISORY VOTES	43
Recommendation of the Board of Directors	43
PROPOSAL 4—RATIFICATION OF THE APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	44
Audit Fees and Services	44
Pre-Approval Policies and Procedures	44
Recommendation of the Board of Directors	45
CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS	46
Policies and Procedures for Related Person Transactions	46
Related Person Transactions	46
Participation in Follow-On Public Offerings	46
STOCK OWNERSHIP AND REPORTING	48
Security Ownership of Certain Beneficial Owners and Management	48
Section 16(a) Beneficial Ownership Reporting Compliance	50
OTHER MATTERS	51
Stockholder Proposals for our 2018 Annual Meeting	51
Stockholder Proposals Included in Proxy Statement	51
Stockholder Proposals Not Included in Proxy Statement	51
Householding of Annual Meeting Materials	51



45 Sidney Street
Cambridge, Massachusetts 02139
(617) 374-7580

PROXY STATEMENT

2018 ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD ON JUNE 20, 2018

INFORMATION CONCERNING SOLICITATION AND VOTING

This proxy statement and the enclosed proxy card are being furnished in connection with the solicitation of proxies by the board of directors of Blueprint Medicines Corporation for use at the annual meeting of stockholders to be held on Wednesday, June 20, 2018 at 3:00 p.m., Eastern Daylight Time, at our offices located at 45 Sidney Street, Cambridge, Massachusetts 02139, and at any adjournment thereof.

Unless otherwise stated, all references to “us,” “our,” “Blueprint,” “Blueprint Medicines,” “we,” the “Company” and similar designations refer to Blueprint Medicines Corporation and its consolidated subsidiary, Blueprint Medicines Security Corporation. References to our website are inactive textual references only, and the contents of our website are not incorporated by reference into this proxy statement.

This proxy statement summarizes information about the proposals to be considered at the meeting and other information you may find useful in determining how to vote. The proxy card is the means by which you actually authorize another person to vote your shares in accordance with your instructions. We are making this proxy statement, the related proxy card and our 2017 annual report to stockholders available to stockholders for the first time on or about April 27, 2018.

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as filed with the Securities and Exchange Commission, or SEC, except for exhibits, will be furnished without charge to any stockholder upon written or oral request to Blueprint Medicines Corporation, 45 Sidney Street, Cambridge, Massachusetts 02139 or by calling 1-800-579-1639, by emailing sendmaterial@proxyvote.com or by submitting a request over the Internet at www.proxyvote.com. This proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 are also available on the SEC’s website at www.sec.gov and the “Investors —SEC Filings” section of our website, which is located at www.blueprintmedicines.com.

IMPORTANT INFORMATION ABOUT THE ANNUAL MEETING AND VOTING

Q. Why did I receive these proxy materials?

- A. Our board of directors has made these materials available to you on the Internet in connection with the solicitation of proxies for use at our 2018 annual meeting of stockholders to be held at our offices located at 45 Sidney Street, Cambridge, Massachusetts 02139, on Wednesday, June 20, 2018 at 3:00 p.m., Eastern Daylight Time. As a holder of common stock, you are invited to attend the annual meeting and are requested to vote on the items of business described in this proxy statement. This proxy statement includes information that we are required to provide to you under SEC rules and that is designed to assist you in voting your shares.

Q. Why did I receive a notice in the mail regarding the Internet availability of proxy materials instead of a full set of proxy materials?

- A. In accordance with the SEC rules, we may furnish proxy materials, including this proxy statement and our annual report, to our stockholders by providing access to such documents on the Internet instead of mailing printed copies. If you would like to receive a paper copy of our proxy materials, you should follow the instructions for requesting such materials in the notice.

Q. What is the purpose of the annual meeting?

- A. At the annual meeting, stockholders will consider and vote on the following matters:
1. The election of three Class III directors nominated by our board of directors, each to serve for a three-year term expiring at the 2021 annual meeting of stockholders or until his or her successor has been duly elected and qualified (Proposal 1);
 2. An advisory vote on the compensation paid to our named executive officers (Proposal 2);
 3. An advisory vote on the frequency of future advisory votes on the compensation paid our named executive officers (Proposal 3);
 4. The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ended December 31, 2018 (Proposal 4); and
 5. The transaction of any other business that may properly come before the annual meeting or any adjournment or postponement thereof.

Q. Who can vote at the annual meeting?

- A. To be entitled to vote, you must have been a stockholder of record at the close of business on April 23, 2018, the record date for our annual meeting. As of the record date, there were 43,837,316 shares of our common stock outstanding and entitled to vote at the annual meeting.

Q. How many votes do I have?

- A. Each share of our common stock that you own as of the record date will entitle you to one vote on each matter considered at the annual meeting.

Q. How do I vote?

- A. **If you are the “record holder” of your shares**, meaning that your shares are registered in your name in the records of our transfer agent, Computershare Trust Company, N.A., and not in the name of a bank, brokerage firm or other nominee, you may vote your shares at the meeting in person or by proxy as follows:
1. **Over the Internet:** To vote over the Internet, please go to the following website: *www.proxyvote.com*, and follow the instructions on that website for submitting your proxy electronically. If you vote over the Internet, you do not need to complete and mail your proxy card or vote your proxy by telephone. You must specify how you want your shares voted, or your Internet vote cannot be completed, and you will receive an error message. You must submit your Internet proxy before 11:59 p.m., Eastern Daylight Time, on June 19, 2018, the day before the annual meeting, for your proxy to be valid and your vote to count.

2. **By Telephone:** To vote by telephone, please call 1-800-579-1639, and follow the instructions provided on the proxy card. If you vote by telephone, you do not need to complete and mail your proxy card or vote your proxy over the Internet. You must specify how you want your shares voted and confirm your vote at the end of the call, or your telephone vote cannot be completed. You must submit your telephonic proxy before 11:59 p.m., Eastern Daylight Time, on June 19, 2018, the day before the annual meeting, for your proxy to be valid and your vote to count.
3. **By Mail:** To vote by mail, you must mark, sign and date the proxy card and then mail the proxy card in accordance with the instructions on the proxy card. If you vote by mail, you do not need to vote over the Internet or by telephone. Broadridge Financial Solutions, Inc. must receive the proxy card not later than June 19, 2018, the day before the annual meeting, for your proxy to be valid and your vote to count. If you return your proxy card but do not specify how you want your shares voted on any particular matter, they will be voted in accordance with the recommendations of our board of directors.
4. **In Person at the Meeting:** If you attend the annual meeting, you may deliver your completed proxy card in person or you may vote by completing a ballot, which we will provide to you at the meeting.

If your shares are held in “street name,” meaning they are held for your account by an intermediary, such as a bank, brokerage firm or other nominee, then you are deemed to be the beneficial owner of your shares, and the bank, brokerage firm or other nominee that actually holds the shares for you is the record holder and is required to vote the shares it holds on your behalf according to your instructions. The proxy materials, as well as voting and revocation instructions, should have been forwarded to you by the bank, brokerage firm or other nominee that holds your shares. In order to vote your shares, you will need to follow the instructions that your bank, brokerage firm or other nominee provides you. Many banks, brokerage firms or other nominees solicit voting instructions over the Internet or by telephone.

If you do not give instructions to your bank, brokerage firm or other nominee, they will still be able to vote your shares with respect to certain “discretionary” items. The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm (Proposal 4) is considered a discretionary item. Accordingly, your bank, brokerage firm or other nominee may vote your shares in its discretion with respect to that matter even if you do not give voting instructions on Proposal 4.

However, under applicable stock exchange rules that regulate voting by registered banks, brokerage firms or other nominees, the election of our nominees to serve as Class III directors (Proposal 1), an advisory vote on the compensation paid to our named executive officers (Proposal 2) and an advisory vote to determine the frequency of future advisory votes (Proposal 3) is not considered to be a discretionary item. Accordingly, if you do not give your bank, brokerage firm or other nominee voting instructions on Proposals 1, 2 or 3 they may not vote your shares with respect to this matter and your shares will be counted as “broker non-votes” with respect to the proposal. A “broker non-vote” occurs when shares held by a bank, brokerage firm or other nominee are not voted with respect to a particular proposal because the bank, brokerage firm or other nominee does not have or did not exercise discretionary authority to vote on the matter and has not received voting instructions from its clients.

Regardless of whether your shares are held in street name, you are welcome to attend the meeting. You may not vote shares held in street name in person at the meeting, however, unless you obtain a legal proxy, executed in your favor, from the holder of record (i.e., your bank, brokerage firm or other nominee). A legal proxy is *not* the form of proxy included with this proxy statement. You will not be able to vote shares you hold in street name in person at the annual meeting unless you have a legal proxy from your bank, brokerage firm or other nominee issued in your name giving you the right to vote your shares.

Q. Can I change my vote?

A. **If your shares are registered directly in your name**, you may revoke your proxy and change your vote at any time before the vote is taken at the annual meeting. To do so, you must do one of the following:

1. Vote over the Internet or by telephone as instructed above. Only your latest Internet or telephone vote is counted.
2. Sign and return a new proxy card. Only your latest dated and timely received proxy card will be counted.
3. Attend the annual meeting and vote in person as instructed above. Attending the annual meeting will not alone revoke your Internet vote, telephone vote or proxy card submitted by mail, as the case may be.
4. Give our corporate secretary written notice before or at the meeting that you want to revoke your proxy.

If your shares are held in street name, you may submit new voting instructions by contacting your bank, brokerage firm or other nominee. You may also vote in person at the annual meeting if you obtain a legal proxy as described in the answer above.

Q. How many shares must be represented to have a quorum and hold the annual meeting?

A. A majority of our shares of common stock outstanding at the record date must be present in person or represented by proxy to hold the annual meeting. This is called a quorum. For purposes of determining whether a quorum exists, we count as present any shares that are voted over the Internet, by telephone, by completing and submitting a proxy by mail or that are represented in person at the meeting. Further, for purposes of establishing a quorum, we will count as present shares that a stockholder holds even if the stockholder votes to abstain or only votes on one of the proposals. In addition, we will count as present shares held in street name by banks, brokerage firms or other nominees who indicate on their proxies that they do not have authority to vote those shares. If a quorum is not present, we expect to adjourn the annual meeting until we obtain a quorum.

The presence at the annual meeting, in person or by proxy, of holders representing a majority of our outstanding common stock as of the record date, April 23, 2018, or approximately 21,918,659 shares, constitutes a quorum at the meeting and permits us to conduct the business of the meeting.

Q. What vote is required to approve each matter and how are votes counted?

A. **Proposal 1—Election of Class III Directors**

The three nominees for director to receive the highest number of votes FOR election will be elected as directors. This is called a plurality. **Proposal 1 is a non-discretionary matter.** Therefore, if your shares are held by your brokerage firm in street name and you do not timely provide voting instructions with respect to your shares, your brokerage firm cannot vote your shares on Proposal 1. Shares held in street name by banks, brokerage firms or other nominees who indicate on their proxies that they do not have authority to vote the shares on Proposal 1 will not be counted as votes FOR or WITHHELD from any nominee. As a result, such “broker non-votes” will have no effect on the voting on Proposal 1. You may:

- vote FOR all nominees;
- vote FOR one or more nominees and WITHHOLD your vote from the other nominees; or
- WITHHOLD your vote from all nominees.

Votes that are withheld will not be included in the vote tally for the election of directors and will not affect the results of the vote.

Proposal 2—Advisory Vote on the Compensation Paid to Named Executive Officers

To approve Proposal 2, holders of a majority of the votes cast on the matter must vote FOR the proposal.

Proposal 2 is a non-discretionary matter. Therefore, if your shares are held by your brokerage firm in street name and you do not timely provide voting instructions with respect to your shares, your brokerage firm cannot vote your shares on Proposal 2. If you ABSTAIN from voting on Proposal 2, your shares will not be voted FOR or AGAINST the proposal and will also not be counted as votes cast or shares voting on the proposal. As a result, such “broker non-votes” and abstentions will have no effect on the voting on Proposal 2. Proposal 2 is non-binding. Because this vote is advisory and not binding on us or our board in any way, our board may decide that it is in our and our stockholders’ best interests to compensate our named executive officers in an amount or manner that differs from that which is approved by our stockholders.

Proposal 3—Advisory Vote on the Frequency of Future Advisory Votes on the Compensation Paid to Named Executive Officers

The approval of one of the three frequency options under Proposal 3 requires a majority of the votes cast on the matter. **Proposal 3 is a non-discretionary matter.** Therefore, if your shares are held by your brokerage firm in street name and you do not timely provide voting instructions with respect to your shares, your brokerage firm cannot vote your shares on Proposal 3. If you ABSTAIN from voting on Proposal 3, your shares will not be voted FOR or AGAINST the proposal and will also not be counted as votes cast or shares voting on the proposal. As a result, such “broker non-votes” and abstentions will have no effect on the voting on Proposal 3. With respect to this proposal, if none of the frequency options (one year, two years or three years) receive a majority vote, we will consider the frequency that receives the highest number of votes cast by stockholders to be the frequency that has been recommended by stockholders. Proposal 3 is non-binding. Because this vote is advisory and not binding on us or our board in any way, our board may decide that it is in our and our stockholders’ best interests to hold an advisory vote on executive compensation more or less frequently than the alternative approved by our stockholders.

Proposal 4—Ratification of the Appointment of Independent Registered Public Accounting Firm

To approve Proposal 4, holders of a majority of the votes cast on the matter must vote FOR the proposal.

Proposal 4 is considered a routine matter. If your shares are held by your brokerage firm in street name and you do not provide voting instructions with respect to your shares, your brokerage firm may vote your unvoted shares on Proposal 4. If you ABSTAIN from voting on Proposal 4, your shares will not be voted FOR or AGAINST the proposal and will also not be counted as votes cast or shares voting on the proposal. As a result, voting to ABSTAIN will have no effect on the outcome of Proposal 4.

Although stockholder approval of our audit committee’s appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ended December 31, 2018 is not required, we believe that it is advisable to give stockholders an opportunity to ratify this appointment. If this proposal is not approved at the annual meeting, our audit committee will reconsider its appointment of Ernst & Young LLP as our independent registered public accounting firm for the year ended December 31, 2018.

Q. Who will count the vote?

A. The votes will be counted, tabulated and certified by Broadridge Financial Solutions, Inc.

Q. How does the board of directors recommend that I vote on the proposals?

A. Our board of directors recommends that you vote:

FOR the election of the three nominees to serve as Class III directors, each for a three-year term; and

FOR the approval, on an advisory (non-binding) basis, of the compensation of our named executive officers;

FOR holding, on an advisory (non-binding) basis, an annual vote on the compensation of our named executive officers; and

FOR the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ended December 31, 2018.

Q. Are there other matters to be voted on at the annual meeting?

A. We do not know of any matters that may come before the annual meeting other than the election of our Class III directors, the approval of the compensation of our named executive officers, the frequency of future advisory votes on the compensation paid to our named executive officers and the ratification of the appointment of our independent registered public accounting firm. If any other matters are properly presented at the annual meeting, the persons named in the accompanying proxy intend to vote, or otherwise act, in accordance with their judgment on the matter.

Q. Where can I find the voting results?

A. We plan to announce preliminary voting results at the annual meeting and will report final voting results in a Current Report on Form 8-K filed with the SEC within four business days following the end of our annual meeting.

Q. What are the costs of soliciting these proxies?

A. We will bear the cost of soliciting proxies. In addition to solicitation by mail, our directors, officers and employees may solicit proxies by telephone, e-mail, facsimile and in person without additional compensation. We may reimburse banks or brokerage firms or persons holding stock in their names, or in the names of their nominees, for their expenses in sending proxies and proxy material to beneficial owners.

Q. Whom should I contact if I have any additional questions?

A. If you hold your shares directly or have additional questions about the annual meeting, please contact us at Blueprint Medicines Corporation, 45 Sidney Street, Cambridge, Massachusetts 02139, Attn: Investor Relations, telephone: (617) 714-6674, e-mail: ir@blueprintmedicines.com.

If your shares are held in street name, please call the telephone number provided on your voting instruction form or contact your bank, brokerage firm or other nominee directly.

PROPOSAL 1: ELECTION OF DIRECTORS

Our board of directors is divided into three classes, with one class of our directors standing for election each year. Directors in each class are elected at the annual meeting of stockholders held in the year in which the term for their class expires and hold office for a three-year term and until their resignation or removal or their successors are duly elected and qualified. In accordance with our certificate of incorporation and bylaws, our directors may fill existing vacancies on the board of directors.

The term of office of our Class III directors, Daniel S. Lynch, George D. Demetri, M.D. and Lynn Seely, M.D., will expire at the 2018 annual meeting of stockholders. The nominees for Class III directors for election at the 2018 annual meeting of stockholders are Mr. Lynch and Drs. Demetri and Seely. If any of Mr. Lynch and Drs. Demetri and Seely are elected at the 2018 annual meeting of stockholders, such individual will be elected to serve for a three-year term that will expire at our 2021 annual meeting of stockholders and until such individual's successor is elected and qualified.

If no contrary indication is made, proxies in the accompanying form will be voted for Mr. Lynch and Drs. Demetri and Seely or, in the event that any of Mr. Lynch and Drs. Demetri and Seely is not a candidate or is unable to serve as a director at the time of the election (which is not currently expected), for any nominee who is designated by our board of directors to fill the vacancy.

Information Regarding Directors

Set forth below are the names and certain information for each member of our board of directors, including the nominees for election as Class III directors, as of April 15, 2018. The information presented includes each director's and nominee's principal occupation and business experience for the past five years, and the names of other public companies of which he or she has served as a director during the past five years. The information presented below regarding the specific experience, qualifications, attributes and skills of each director and nominee led our board of directors to conclude that he or she should serve as a director. In addition, we believe that all of our directors and nominees possess the attributes or characteristics described in "—Director Nomination Process" the nominating and corporate governance committee expects of each director.

There are no family relationships among any of our directors or executive officers.

Other than Mr. Coats and Drs. Goldberg and Seely, each of our directors was initially elected pursuant to a stockholders agreement that we entered into with the holders of our preferred stock, which terminated upon the closing of our initial public offering.

Name	Age	Position(s)
<i>Class I Directors</i>		
Jeffrey W. Albers	46	President and Chief Executive Officer, Director
Mark Goldberg, M.D. (1)(2)(4)	63	Director
Nicholas Lydon, Ph.D. (3)(4)	61	Director
<i>Class II Directors</i>		
Alexis Borisy (4)	46	Director
Charles A. Rowland, Jr. (1)(2)	59	Director
Lonnel Coats (1)(3)	53	Director
<i>Class III Director Nominees</i>		
Daniel S. Lynch	60	Chairman of the Board, Director
George D. Demetri, M.D. (3)(4)	61	Director
Lynn Seely, M.D. (2)(4)	59	Director

- (1) Member of the audit committee.
- (2) Member of the compensation committee.
- (3) Member of the nominating and corporate governance committee.
- (4) Member of the research and development committee.

Class III Director Nominees—For a Three-Year Term Expiring at the 2021 Annual Meeting of Stockholders

Daniel S. Lynch has served as chairman of our board of directors since September 2012. Mr. Lynch served as a venture partner at Third Rock from May 2013 to December 2016 and served as an entrepreneur-in-residence at Third Rock from May 2011 to May 2013 and interim chief executive officer of Surface Oncology, Inc., or Surface Oncology, from September 2017 to January 2018. Mr. Lynch has served as chairman of the board of directors and chairman of the compensation committee of Surface Oncology, Inc. since December 2016, chairman of the board of directors of Eleven Biotherapeutics, Inc. since December 2013 and a member of the board of directors of bluebird bio, Inc. since May 2011. Mr. Lynch served as a member of the board of directors of BIND from October 2012 to July 2016. In addition, Mr. Lynch currently serves on the board of directors of the following privately held biopharmaceutical companies: Nimbus Discovery, Inc., Proclara Biosciences, Inc., SpringWorks Therapeutics, LLC, Surface Oncology, Inc. and Translate Bio, Inc. From April 2001 to November 2005, Mr. Lynch served as the chief financial officer and then the chief executive officer of ImClone Systems Inc. Mr. Lynch received a B.A. in mathematics from Wesleyan University and an M.B.A. from the Darden Graduate School of Business Administration at the University of Virginia. We believe that Mr. Lynch's experience as a senior executive and service on the boards of directors of other life sciences companies qualifies him to serve as a member of our board of directors.

George D. Demetri, M.D., FASCO has served as a member of our board of directors since December 2014. Since 1989, Dr. Demetri has served on the faculty of the Dana-Farber Cancer Institute, or Dana-Farber, and Harvard Medical School, where he is a Professor of Medicine and serves as one of the Directors of the Ludwig Center at Harvard. At Dana-Farber, Dr. Demetri is the Senior Vice President for Experimental Therapeutics, as well as an Associate Director for Clinical Sciences at the NCI-designated Dana-Farber/Harvard Comprehensive Cancer Center Consortium. Dr. Demetri's research and clinical interests have centered on mechanism-based drug development for solid tumors, with an emphasis on molecularly-defined subsets of sarcomas such as gastrointestinal stromal tumors. Dr. Demetri has contributed to the development of several new drugs for sarcomas and other malignancies, including imatinib, sunitinib, dasatinib, trabectedin, everolimus, pazopanib and regorafenib. He was also a member of the scientific advisory board for Plexikon Inc. and helped to develop the mutant BRAF inhibitor, vemurafenib. In addition, Dr. Demetri has served as a member of the board of directors of Merrimack Pharmaceuticals, Inc. since December 2017. Dr. Demetri serves as chair of the Science Policy and Government Affairs Committee for the American Association for Cancer Research as well as several other scientific and editorial advisory boards. Dr. Demetri received an A.B. in biochemistry from Harvard College and an M.D. from Stanford University School of Medicine. We believe that Dr. Demetri's more than 25 years of experience as an oncologist and his significant leadership experience on various national and international scientific and company advisory boards qualifies him to serve as a member of our board of directors.

Lynn Seely, M.D. has served as a member of our board of directors since April 2016. Since June 2016, Dr. Seely has served as president and chief executive officer and a member of the board of directors of Myovant Sciences, Inc., or Myovant, a biopharmaceutical company focused on developing and commercializing innovative therapies for women's health diseases and other endocrine-related disorders. Prior to joining Myovant, Dr. Seely served as the chief medical officer of Medivation, Inc., or Medivation, from March 2005 until her retirement in October 2015, including as senior vice president and chief medical officer from January 2009 to October 2015. In this role, Dr. Seely led the development of XTANDI (enzalutamide) from the first-in-human clinical trial through global approvals, and actively participated in multiple drug development collaborations, including collaborations with Pfizer Inc. and Astellas Pharma US, Inc. for Phase 3 drug candidates, as well as the acquisition of talazoparib from BioMarin Pharmaceutical Inc. Prior to joining Medivation, from September 2002 to March 2005, Dr. Seely served as vice president of clinical development at Anesiva, Inc., formerly Corgentech Inc., where she participated in a collaboration with Bristol-Myers Squibb for a Phase 3 drug candidate. Dr. Seely previously served as vice president of clinical development for Cytoc Health Corporation, a subsidiary of Cytoc Corporation, from 2001 to 2002, and from 2000 to 2001, Dr. Seely served as vice president of clinical development at ProDuct Health, Inc., a privately held medical device company prior to its acquisition by Cytoc Corporation. Dr. Seely began her career as an associate director of clinical development at Chiron Corporation. Dr. Seely received a B.A. in journalism from the University of Oklahoma and an M.D. from the University of Oklahoma College of Medicine. She completed her residency and served as chief resident in internal medicine at Yale-New Haven Hospital, and she completed her fellowship in endocrinology and metabolism at the University of California, San Diego. We believe Dr. Seely is qualified to serve on our board of directors due to her extensive healthcare and life sciences experience.

Class I Directors—Term Expiring at the 2019 Annual Meeting of Stockholders

Jeffrey W. Albers has served as our president and chief executive officer and a member of our board of directors since July 2014. In addition, Mr. Albers currently serves on the board of directors of Magenta Therapeutics, Inc., a privately held biopharmaceutical company, and on the board of directors of the New England Division of the American Cancer Society. Mr. Albers has nearly a decade of experience in leadership roles in the biopharmaceutical industry. Prior to joining us, from January 2012 to April 2014, he was president of Algeta ASA, or Algeta, a Norwegian biopharmaceutical company, where he oversaw the commercial and business functions. At Algeta, Mr. Albers was responsible for the U.S. launch of Radium-223 in metastatic castrate resistant prostate cancer. Prior to Algeta, from July 2005 to November 2011, Mr. Albers was at Genzyme Corporation, or Genzyme, a biotechnology company that is now a wholly-owned subsidiary of Sanofi S.A., most recently as vice president of the U.S. hematology and oncology business unit. Mr. Albers received a B.S. from Indiana University and an M.B.A. and a J.D. from Georgetown University. We believe that Mr. Albers' leadership in the life sciences industry qualifies him to serve on our board of directors.

Mark Goldberg, M.D. has served as a member of our board of directors since June 2015. Dr. Goldberg has served as a member of the board of directors of ImmunoGen, Inc. since November 2011, a member of the board of directors of GlycoMimetics, Inc. since July 2014, a member of the board of directors of Idera Pharmaceuticals, Inc. since March 2014 and a member of the board of directors of Audentes Therapeutics, Inc. since December 2017. Dr. Goldberg served as a member of the board of directors of Synageva Biopharma Corp., or Synageva, from October 2008 until November 2011, when he stepped down to become a member of the executive management team at Synageva. Dr. Goldberg served as a member of the executive management team at Synageva until late 2014, rising to executive vice president, medical and regulatory strategy. In late 2014, Dr. Goldberg stepped down from the executive management team at Synageva and continued to be employed part-time, contributing to medical and regulatory strategy until leaving Synageva in June 2015 upon its acquisition by Alexion Pharmaceuticals, Inc. Prior to joining Synageva, Dr. Goldberg served in various management capacities of increasing responsibility at Genzyme from November 1996 to July 2011, including most recently as senior vice president, clinical development and global therapeutic head, oncology, genetic health, and as chairman of Genzyme's early product development board. Prior to joining Genzyme, Dr. Goldberg was a full-time staff physician at Brigham and Women's Hospital and the Dana-Farber Cancer Institute, where he still holds appointments. Dr. Goldberg is a part-time Associate Professor of Medicine at Harvard Medical School and currently serves as acting chief medical officer of CANbridge Life Sciences Ltd., a privately held biopharmaceutical company. Since 2010, Dr. Goldberg has also served as a volunteer on the board of directors of the New England Division of the American Cancer Society. Dr. Goldberg received an A.B. in biochemistry and molecular biology from Harvard University and an M.D. from Harvard Medical School. We believe Dr. Goldberg is qualified to serve on our board of directors due to his extensive healthcare and regulatory experience.

Nicholas Lydon, Ph.D. is a scientific founder of Blueprint Medicines and has served as a member of our board of directors since April 2011. Since 2006, Dr. Lydon has served as a scientific advisor and member of the board of directors of AnaptysBio Inc., a company he co-founded. In addition, Dr. Lydon currently serves on the board of directors of Staurus Biopharma, LLC, a privately held biopharmaceutical company that he co-founded. From 2003 to 2009, Dr. Lydon served as a scientific advisor and member of the board of directors of Ambit Biosciences Corp., a biopharmaceutical company. From 2000 to 2002, Dr. Lydon served as vice president, small molecule drug discovery, at Amgen, Inc., or Amgen. Prior to joining Amgen, in 1997 Dr. Lydon founded Kinetix Pharmaceuticals, Inc., or Kinetix, a biotechnology company focused on the discovery and development of selective protein kinase inhibitors, which was acquired by Amgen in 2000, and served as Kinetix's chief executive officer and member of its board of directors. Prior to founding Kinetix, Dr. Lydon worked for Ciba-Giegy AG (now Novartis AG) where he was responsible for the tyrosine protein kinase program, including the discovery and preclinical development of imatinib. Dr. Lydon received a B.S. in biochemistry and zoology from the University of Leeds, England, and received a Ph.D. in biochemistry from the Medical Sciences Institute, University of Dundee, Scotland. We believe Dr. Lydon's detailed knowledge of our company and long tenure with us, having served as one of our scientific founders, along with his experience working with and serving on the boards of directors of life sciences companies and his experience as a senior executive with several life sciences companies qualifies him to serve on our board of directors.

Class II Directors—Term Expiring at the 2020 Annual Meeting of Stockholders

Alexis Borisy has served as a member of our board of directors since April 2011. Mr. Borisy co-founded Blueprint Medicines and served as our interim chief executive officer from May 2013 through July 2014. Since 2010,

Mr. Borisy has been a partner at Third Rock Ventures, or Third Rock, a life sciences venture capital firm focused on the formation, development and strategy of new companies. Mr. Borisy currently serves as executive chairman on the board of directors of the following privately held biopharmaceutical companies: Celsius Therapeutics, Inc., Relay Therapeutics, Inc. and Tango Therapeutics, Inc. Since 2011, Mr. Borisy has served as chairman of Warp Drive Bio, LLC, a life sciences company focusing on genomics where he served as chief executive officer from 2011 to July 2013. In addition, Mr. Borisy serves on the board of directors for Revolution Medicines, Inc. and Magenta Therapeutics, Inc., privately held biopharmaceutical companies. From November 2013 to March 2018, Mr. Borisy served as a member of the board of directors of Editas Medicine, Inc. From 2007 to 2012, Mr. Borisy served as chairman of FORMA Therapeutics, Inc., a biopharmaceutical company focused on discovering and developing medicines in cancer and other genetically-driven diseases. Mr. Borisy co-founded Foundation Medicine, Inc., or Foundation Medicine, where he served as its interim chief executive officer from 2009 to 2011 and has served as a member of its board of directors since 2009, including as chairman of Foundation Medicine's board of directors from 2011 to February 2017. In 2000, Mr. Borisy founded CombinatoRx, Inc. and served as its chief executive officer and on its board of directors from 2000 to 2009. Mr. Borisy received an A.B. in chemistry from the University of Chicago and an A.M. from Harvard University. We believe Mr. Borisy's detailed knowledge of our company and long tenure with us, having served as one of our founders, along with his experience working with and serving on the boards of directors of life sciences companies and his experience working in the venture capital industry qualifies him to serve on our board of directors.

Charles A. Rowland, Jr., MBA has served as a member of our board of directors since March 2015. From April 2016 to February 2017, Mr. Rowland served as president and chief executive officer of Aurinia Pharmaceuticals Inc., or Aurinia, and as a member of the board of directors of Aurinia from July 2014 to February 2017. Mr. Rowland previously served as vice president and chief financial officer of ViroPharma Incorporated, or ViroPharma, an international biopharmaceutical company, from October 2008 until it was acquired by Shire plc in January 2014. Prior to joining ViroPharma, from 2006 to 2008, Mr. Rowland served as executive vice president and chief financial officer, as well as the interim co-chief executive officer, for Endo Pharmaceuticals Inc., a specialty pharmaceutical company with a primary focus in pain management. Mr. Rowland previously held positions of increasing responsibility at the following biopharmaceutical companies: Biovail Pharmaceuticals, Inc., Breakaway Technologies, Inc., Pharmacia Corporation, Novartis AG and Bristol-Myers Squibb Co. Mr. Rowland has served as a member of the board of directors, chairman of the compensation committee and member of the audit committee of Viking Therapeutics, Inc. since July 2017. Since January 2015, he has served as a member of the board of directors and chairman of the audit committee and compensation committee of Nabriva Therapeutics, AG, a biotechnology company based in Dublin, Ireland. Mr. Rowland served as a member of the board of directors and audit committee of Idenix Pharmaceuticals, Inc., a biopharmaceutical company, from June 2013 it was acquired by Merck & Co., Inc. in August 2014. Mr. Rowland served as a member of the board of directors and chairman of the audit committee of Vitae Pharmaceuticals, Inc. from September 2014 until it was acquired by Allergan in September 2016. Mr. Rowland served as a member of the board of directors and chairman of the audit committee of BIND Therapeutics, Inc., or BIND, from May 2014 to July 2016. Mr. Rowland received a B.S. in Accounting from Saint Joseph's University and an M.B.A. with a finance concentration from Rutgers University. We believe that Mr. Rowland's extensive professional experience as a chief financial executive in the biotechnology and pharmaceutical industries and his experience serving as a director of various publicly traded biotechnology companies qualifies him to serve as a member of our board of directors.

Lonnell Coats has served as a member of our board of directors since February 2016. Since July 2014, Mr. Coats has served as president and chief executive officer and a member of the board of directors of Lexicon Pharmaceuticals, Inc., or Lexicon, a biopharmaceutical company focused on the development of breakthrough therapies for the treatment of type 1 and type 2 diabetes and carcinoid syndrome. Prior to joining Lexicon, from 1996 through June 2014, Mr. Coats served in a series of leadership positions at Eisai Inc. and Eisai Corporation of North America, U.S. subsidiaries of Tokyo-based Eisai Co., Ltd., including as chief executive officer of Eisai Inc. from 2010 to June 2014 and as president and chief operating officer of Eisai Inc. from 2004 to 2010. Mr. Coats also previously held a variety of sales and management positions at Janssen Pharmaceuticals, Inc., a division of Johnson & Johnson, from 1988 to 1996. Mr. Coats received a B.S. from Oakland University. We believe that Mr. Coats' extensive professional experience in the biotechnology industry, including developing and commercializing pharmaceutical products and managing pharmaceutical marketing and sales efforts, qualifies him to serve as a member of our board of directors.

Recommendation of the Board of Directors

OUR BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE “FOR” THE ELECTION OF DANIEL S. LYNCH, GEORGE D. DEMETRI, M.D. AND LYNN SEELY, M.D. TO SERVE AS CLASS III DIRECTORS.

CORPORATE GOVERNANCE

General

Our board of directors believes that good corporate governance is important to ensure that our company is managed for the long-term benefit of stockholders. This section describes key corporate governance guidelines and practices that our board of directors has adopted. Complete copies of our corporate governance guidelines, committee charters and code of conduct are available on the “Investors —Corporate Governance” section of our website, which is located at www.blueprintmedicines.com. Alternatively, you can request a copy of any of these documents by contacting us at Blueprint Medicines Corporation, 45 Sidney Street, Cambridge, Massachusetts 02139, Attn: Investor Relations, telephone: (617) 714-6674, e-mail: ir@blueprintmedicines.com.

Code of Business Conduct and Ethics and Corporate Governance Guidelines

Our board of directors has adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A copy of the code of business conduct and ethics is available on the “Investors—Corporate Governance” section of our website, which is located at www.blueprintmedicines.com. We intend to disclose on our website any amendments to, or waivers from, the code of business conduct and ethics that are required to be disclosed pursuant to the disclosure requirements of Item 5.05 of Form 8-K.

Our board of directors has also adopted corporate governance guidelines to assist in the exercise of its duties and responsibilities and to serve the best interests of our company and our stockholders. A copy of the corporate governance guidelines is available on the “Investors—Corporate Governance” section of our website, which is located at www.blueprintmedicines.com.

Board Leadership Structure and Risk Oversight

Board Leadership Structure

As a general policy, our board of directors believes that separation of the positions of chairman and chief executive officer reinforces the independence of the board of directors from management, creates an environment that encourages objective oversight of management’s performance and enhances the effectiveness of the board of directors as a whole. Accordingly, we currently separate the roles of chief executive officer and chairman of the board of directors, with Mr. Albers serving as our president and chief executive officer and Mr. Lynch serving as chairman of the board of directors. As president and chief executive officer, Mr. Albers is responsible for setting the strategic direction for our company and the day-to-day leadership and performance of our company, while Mr. Lynch, as chairman of the board of directors, presides over meetings of the board of directors, including executive sessions of the board of directors, and performs oversight responsibilities. The board of directors has not appointed a lead independent director. Our board of directors has four standing committees that currently consist of, and are chaired by, independent directors. Our board of directors delegates substantial responsibilities to the committees, which then report their activities and actions back to the full board of directors. We believe that the independent committees of our board of directors and their chairpersons promote effective independent governance. We believe this structure represents an appropriate allocation of roles and responsibilities for our company at this time because it strikes an effective balance between management and independent leadership participation in our board of directors proceedings.

Risk Oversight

Our board of directors oversees the management of risks inherent in the operation of our business and the implementation of our business strategies. Our board of directors performs this oversight role by using several different levels of review. In connection with its reviews of the operations and corporate functions of our company, our board of directors addresses the primary risks associated with those operations and corporate functions. In addition, our board of directors reviews the risks associated with our company’s business strategies periodically throughout the year as part of its consideration of undertaking any such business strategies.

Each committee of our board of directors also oversees the management of our company’s risk that falls within the committee’s areas of responsibility. In performing this function, each committee has full access to management, as well as the ability to engage advisors. Our chief executive officer reports to the audit committee and is responsible for identifying, evaluating and implementing risk management controls and methodologies to address any identified risks. In connection with its risk management role, our audit committee meets privately with representatives from our

independent registered public accounting firm and our chief executive officer. The audit committee oversees the operation of our risk management program, including the identification of the primary risks associated with our business and periodic updates to such risks, and reports to our board of directors regarding these activities.

Board Determination of Independence

Rule 5605 of the Nasdaq Listing Rules requires a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, the Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act, and compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. Under Rule 5605(a)(2) of the Nasdaq Listing Rules, a director will only qualify as an "independent director" if, in the opinion of our board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other committee of the board of directors, accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries. In order to be considered independent for purposes of Rule 10C-1, the board of directors must consider, for each member of a compensation committee of a listed company, all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: (1) the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director; and (2) whether the director is affiliated with the company or any of its subsidiaries or affiliates.

Our board of directors undertook a review of the composition of our board of directors and its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that each of our directors, with the exception of Jeffrey W. Albers and Daniel S. Lynch, is an "independent director" as defined under Rule 5605(a)(2) of the Nasdaq Listing Rules. Mr. Albers is not an independent director under Rule 5605(a)(2) because he is our president and chief executive officer. Our board of directors also determined that Charles A. Rowland, Jr., Lonnel Coats and Mark Goldberg, who comprise our audit committee, Charles A. Rowland, Jr., Mark Goldberg and Lynn Seely, who comprise our compensation committee, and Lonnel Coats, George D. Demetri and Nicholas Lydon, who comprise our nominating and corporate governance committee, satisfy the independence standards for such committees established by the SEC and the Nasdaq Listing Rules, as applicable, including in the case of all members of the audit committee, the independence requirements contemplated by Rule 10A-3 under the Exchange Act and in the case of all members of the compensation committee, the independence requirements contemplated by Rule 10C-1 under the Exchange Act. In making such determinations, our board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining independence, including the beneficial ownership of our capital stock by each non-employee director. In addition, we anticipate that Mr. Lynch will be an independent director under Rule 5605(a)(2) beginning on May 8, 2018.

Board of Director Meetings and Attendance

Our board of directors held 12 meetings during the year ended December 31, 2017. During the year ended December 31, 2017, each of the directors then in office attended at least 75% of the aggregate of the number of board of director meetings and the number of meetings held by all committees of the board of directors on which such director then served.

Although we do not have a formal policy regarding attendance by members of our board of directors at our annual meeting, we encourage all of our directors to attend. Eight of the nine members of our board of directors who were then directors attended our 2017 annual meeting of stockholders.

Communicating with the Board of Directors

Our board of directors will give appropriate attention to written communications that are submitted by stockholders and will respond if and as appropriate. The chairman of the board of directors is primarily responsible for monitoring communications from stockholders and for providing copies or summaries to the other directors as he considers appropriate.

Stockholders who wish to send communications on any topic to our board of directors (or any individual director) should address such communications to Blueprint Medicines Corporation, Attention: Board of Directors, 45 Sidney Street, Cambridge, Massachusetts 02139. Upon receipt of such communications, the correspondence will be directed to the appropriate person, including individual directors.

Committees of the Board of Directors

We have established an audit committee, a compensation committee, a nominating and corporate governance committee and a research and development committee. Each of these committees operates under a charter that has been approved by our board of directors. A copy of each committee's charter can be found under the "Investors—Corporate Governance" section of our website, which is located at www.blueprintmedicines.com.

Audit Committee

Our audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending, based upon the audit committee's review and discussions with management and the independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- approving all Quarterly Reports on Form 10-Q;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related party transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases as well as any other press releases containing financial information.

The members of our audit committee are Charles A. Rowland, Jr., Lonnel Coats and Mark Goldberg. Mr. Rowland serves as chair of the audit committee. Our board of directors has determined that Mr. Rowland qualifies as an "audit committee financial expert" within the meaning of applicable SEC rules. The audit committee held four meetings during the year ended December 31, 2017.

Compensation Committee

Our compensation committee's responsibilities include:

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

The members of our compensation committee are Charles A. Rowland, Jr., Mark Goldberg and Lynn Seely. Mr. Rowland serves as chair of the compensation committee. The compensation committee held six meetings during the year ended December 31, 2017.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee's responsibilities include:

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

The members of our nominating and corporate governance committee are George D. Demetri, Lonnel Coats and Nicholas Lydon. Dr. Demetri serves as chair of the nominating and corporate governance committee. The nominating and corporate governance committee held three meetings during the year ended December 31, 2017.

Research and Development Committee

Our research and development committee's responsibilities include providing:

- a general oversight function regarding pre-clinical and clinical decision-making through a series of semi-annual pipeline reviews and in-depth assessments of select project strategies and plans;
- recommendations regarding key molecules in our discovery and development pipelines through reports and select in-depth project reviews;
- recommendations regarding our pipeline/portfolio balance from a scientific and clinical perspective, including new molecular entity versus new indication balance, mechanism balance, target balance and general risk balance;

- recommendations regarding key discovery and development strategies to align with our business needs; and
- feedback to the board of directors and to our research and development group.

The members of our research and development committee are Nicholas Lydon, Alexis Borisy, George D. Demetri, Mark Goldberg and Lynn Seely. Dr. Lydon serves as chair of the research and development committee. The research and development committee held three meetings during the year ended December 31, 2017.

Director Nomination Process

The process followed by our nominating and corporate governance committee to identify and evaluate director candidates includes requests to board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the nominating and corporate governance committee and our board of directors.

Criteria and Diversity

In considering whether to recommend to our board of directors any particular candidate for inclusion in our board of directors' slate of recommended director nominees, including candidates recommended by stockholders, the nominating and corporate governance committee of our board of directors applies the criteria set forth in our corporate governance guidelines. These criteria include the candidate's experience at a strategic or policymaking level in a business, government, non-profit or academic organization of high standing, accomplishments in the candidate's respective field, the candidate's reputation for high ethical and moral standards, the candidate's time and ability to devote to the affairs of the company, and to the extent applicable, the candidate's history of actively contributing to any boards of directors on which the candidate previously served.

The director biographies on pages 7 to 10 of this proxy statement indicate each nominee's experience, qualifications, attributes and skills that led our nominating and corporate governance committee and our board of directors to conclude he should continue to serve as a director. Our nominating and corporate governance committee and our board of directors believe that each of the nominees has the individual attributes and characteristics required of each of our directors, and the nominees as a group possess the skill sets and specific experience desired of our board of directors as a whole.

We do not have a policy (formal or informal) with respect to diversity, but we believe that our board of directors, taken as a whole, should embody a diverse set of skills, experiences and backgrounds. In this regard, our nominating and corporate governance committee and our board of directors also take into consideration the diversity (with respect to gender, race and national origin) of our board members but do not make any particular weighting of diversity or any other characteristic in evaluating nominees and directors. Our nominating and corporate governance committee's and our board of directors' priority in selecting board members is identification of persons who will further the interests of our stockholders.

Stockholder Nominations

Stockholders may recommend individuals to our nominating and corporate governance committee for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials and a statement as to whether the stockholder or group of stockholders making the recommendation has beneficially owned more than 5% of our common stock for at least a year as of the date such recommendation is made, to Blueprint Medicines Corporation, Attention: Nominating and Corporate Governance Committee, 45 Sidney Street, Cambridge, Massachusetts 02139. Assuming that appropriate biographical and background material has been provided on a timely basis, the nominating and corporate governance committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others. If the board determines to nominate a stockholder-recommended candidate and recommends his or her election, then his or her name will be included in our proxy card for the next annual meeting.

Stockholders also have the right under our bylaws to directly nominate director candidates, without any action or recommendation on the part of the nominating and corporate governance committee or our board of directors, by following the procedures set forth under "Stockholder Proposals for our 2018 Annual Meeting."

EXECUTIVE OFFICERS

Certain information regarding our executive officers who are not also directors, as of April 15, 2018, is set forth below.

Name	Age	Position(s)
Anthony L. Boral, M.D., Ph.D.	55	Chief Medical Officer
Marion Dorsch, Ph.D.	53	Chief Scientific Officer
Kathryn Haviland	42	Chief Business Officer
Michael Landsittel.	46	Vice President, Finance
Tracey L. McCain, Esq.	50	Chief Legal and Compliance Officer
Christopher K. Murray, Ph.D.	55	Senior Vice President, Technical Operations

Anthony L. Boral, M.D., Ph.D. has served as our chief medical officer since January 2016 and previously served as our senior vice president, clinical development from February 2015 to December 2015. Prior to joining us, from November 2010 to February 2015, Dr. Boral worked at the Novartis Institutes for BioMedical Research, or Novartis, as executive director, oncology clinical research, serving as deputy site head for the Cambridge, Massachusetts site since 2013. At Novartis, Dr. Boral was responsible for the clinical aspects of various first-in-human compounds, including most recently ceritinib, an anaplastic lymphoma kinase inhibitor, and Novartis' immune checkpoint inhibitor programs. Prior to Novartis, from 2002 to 2010 he worked at Millennium Pharmaceuticals, Inc., or Millennium, a biotechnology company in Cambridge, Massachusetts, which is now a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited, or Takeda, including as vice president of oncology clinical research from October 2007 to October 2010. At Millennium, Dr. Boral was responsible for various aspects of the development of VELCADE®, a first-in-class cancer therapy now approved to treat multiple myeloma and non-Hodgkin's lymphoma. Dr. Boral received a B.A. from Wesleyan University, and an M.D. and a Ph.D. from the Albert Einstein College of Medicine, in New York.

Marion Dorsch, Ph.D. has served as our chief scientific officer since November 2016. Prior to joining us, from April 2012 to November 2016, Dr. Dorsch served as Vice President of Biology at Agios Pharmaceuticals, Inc., or Agios. In this role, she was responsible for novel target validation, drug discovery, and biomarker strategy across Agios' cancer, rare genetic diseases and immuno-oncology portfolios. During her tenure at Agios, Dr. Dorsch contributed to the successful advancement of several molecules targeting defined genetic lesions into clinical trials. Prior to joining Agios, Dr. Dorsch was the Director of Cancer Biology at Sanofi Oncology, where she oversaw drug discovery efforts. Earlier in her career, Dr. Dorsch served as research project leader for sonidegib (Odomzo®), now approved in the United States and European Union for the treatment of locally advanced basal cell carcinoma, at the Novartis Institutes for Biomedical Research and also worked in Inflammation Discovery at Millennium Pharmaceuticals, Inc. Dr. Dorsch received her Ph.D. in Tumor Immunology from the Free University of Berlin, Germany and was a postdoctoral fellow at Columbia University in New York.

Kathryn Haviland has served as our chief business officer since January 2016. Prior to joining us, from April 2014 to December 2015, Ms. Haviland served as vice president, rare diseases and oncology program leadership at Idera Pharmaceuticals, Inc., or Idera, where she oversaw all aspects of the product development strategy for Idera's rare disease and oncology pipeline programs, including preclinical research, manufacturing and drug supply, regulatory affairs, clinical development and execution and commercial planning. Prior to joining Idera, from June 2012 to April 2014, Ms. Haviland served as head of commercial development at Sarepta Therapeutics, Inc. where she was responsible for product development and commercial planning and for cultivating relationships with key opinion leaders and patient advocacy groups. In addition, Ms. Haviland previously served as executive director of commercial development at PTC Therapeutics, Inc. from April 2007 to June 2012 and held corporate development and project management roles at Genzyme from July 2005 to April 2007. Ms. Haviland received a B.A. from Wesleyan University with a double major in biochemistry/molecular biology and economics and an M.B.A. from Harvard Business School.

Michael Landsittel has served as our vice president, finance since February 2016 and previously served as our senior director, finance from September 2014 to February 2016. Prior to joining us, from October 2012 to July 2014, Mr. Landsittel served as senior director, finance at Algeta Prior to his time at Algeta, from March 2012 to October 2012, Mr. Landsittel served as director, finance at Infinity Pharmaceuticals, Inc., and from August 2002 to March 2012, Mr. Landsittel held various business development and strategic planning roles of increasing responsibility at Genzyme, including most recently as director, business planning. Mr. Landsittel began his career at Arthur Andersen LLP, and he

earned his certified public accountant license in Illinois. Mr. Landsittel received a B.B.A from the University of Michigan and an M.B.A. from the Tuck School of Business at Dartmouth College.

Tracey L. McCain, Esq. has served as our executive vice president and chief legal officer since September 2016 and as our chief compliance officer since June 2017. Prior to joining us, from January 2016 to September 2016, Ms. McCain served as Senior Vice President and Head of Legal of Sanofi Genzyme, a global business unit of Sanofi. Ms. McCain held roles of increasing responsibility after joining Genzyme Corporation, or Genzyme, in May 1997, including becoming its General Counsel after Genzyme was acquired by Sanofi in 2011. In her capacity as Senior Vice President and General Counsel of Genzyme from May 2011 to December 2015, she oversaw all aspects of its legal department in the United States and Europe, including general corporate, commercial and intellectual property matters. Ms. McCain currently serves as a member of the board of directors of Kiniksa Pharmaceuticals, Ltd., a privately held biopharmaceutical company. Prior to joining Genzyme, Ms. McCain was an associate at the law firm Palmer & Dodge LLP. Ms. McCain holds a B.A. from the University of Pennsylvania with a major in political science and a J.D. from Columbia University School of Law.

Christopher K. Murray, Ph.D. has served as our senior vice president, technical operations since October 2017. Prior to joining us, from January 2014 to May 2017, Dr. Murray served as vice president, technical operations at ARIAD Pharmaceuticals, Inc., or ARIAD. In this role, Dr. Murray oversaw all aspects of commercial and clinical manufacturing, supply chain and logistics, process development, quality control and analytical chemistry for ARIAD's approved products and product candidates, including Iclusig® (ponatinib) and Alunbrig® (brigatinib). From 2004 to December 2013, Dr. Murray held multiple roles of increasing responsibility at ARIAD related to process development, manufacturing and clinical supply. Prior to joining ARIAD, Dr. Murray served in various positions with Allos Therapeutics, Inc. and Hauser Inc. related to clinical and commercial manufacturing and supply of active pharmaceutical ingredient. Dr. Murray holds a B.S. from Hope College with a major in chemistry and a Ph.D. in chemistry from the University of Chicago.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Our compensation committee is responsible for reviewing and approving, or recommending for approval by the board of directors, the compensation of our named executive officers, including base salary, cash and equity incentive compensation levels, severance arrangements, change in control benefits and other forms of executive compensation. This committee is also responsible for evaluating our company's performance against its goals and making related recommendations to our board of directors, assessing the performance of our named executive officers, and ensuring our compensation program is aligned with the objectives described below and competitive with those of other companies in our industry that compete with us for talent. This section discusses the principles underlying our compensation committee's policies and decisions with respect to the compensation of our named executive officers.

For 2017, our named executive officers were as follows:

- Jeffrey W. Albers, our president and chief executive officer;
- Michael Landsittel, our vice president of finance;
- Anthony L. Boral, M.D., Ph.D., our chief medical officer;
- Kate Haviland, our chief business officer; and
- Christopher K. Murray, Ph.D., our senior vice president of technical operations.

Executive Summary

We are a clinical-stage biopharmaceutical company focused on developing potentially transformational medicines to improve the lives of patients with genomically defined cancers and rare diseases. Our approach is to leverage our novel target discovery engine to systematically and reproducibly identify kinases that are drivers of diseases in genomically defined patient populations and to craft highly selective and potent drug candidates that may provide significant and durable clinical responses for patients without adequate treatment options. In 2017, we moved closer to realizing our vision of delivering a new generation of kinase medicines to patients with genomically defined diseases and achieved a number of significant goals, including the following:

- In June 2017, the U.S. Food and Drug Administration, or FDA, granted breakthrough therapy designation to avapritinib for the treatment of patients with unresectable or metastatic gastrointestinal stromal tumors, or GIST, harboring the PDGFR α D842V mutation.
- We established registration strategies for avapritinib in PDGFR α -driven GIST and KIT-driven GIST, and we began to prepare for a potential commercial launch of avapritinib.
- We expanded our ongoing Phase 1 clinical trial for avapritinib in advanced GIST, which we refer to as our Phase 1 NAVIGATOR trial, to increase the size of the cohort evaluating the treatment of third line or later GIST patients with avapritinib, and we added a new cohort to evaluate second line GIST patients with avapritinib.
- We presented updated data from our ongoing Phase 1 clinical trial for BLU-554 in advanced hepatocellular carcinoma, or HCC, at the European Society of Medical Oncology, or ESMO, 2017 Congress.
- We reported updated data for avapritinib from the dose escalation and expansion portions of our ongoing Phase 1 NAVIGATOR trial at the 2017 American Society of Clinical Oncology, or ASCO, Annual Meeting and the Connective Tissue Oncology Society, or CTOS, Annual Meeting.
- We reported updated data for avapritinib from the dose escalation portion of our ongoing Phase 1 clinical trial for avapritinib in advanced systemic mastocytosis, which we refer to as our Phase 1 EXPLORER trial, in the oral plenary session at the American Society of Hematology, or ASH, Annual Meeting.
- We initiated our Phase 1 clinical trial for BLU-667 in RET-altered non-small cell lung cancer, or NSCLC, medullary thyroid cancer, or MTC, and other advanced solid tumors, and in December 2017,

which we refer to as our Phase 1 ARROW trial, and we reported preliminary evidence of clinical activity in patients with NSCLC, including patients with KIF5B and other RET fusions, and RET-altered MTC.

- We completed the transition of our former collaboration with Alexion Pharma Holding, and we nominated a development candidate, BLU-782, for our wholly-owned discovery program targeting the kinase ALK2 for the treatment of FOP.
- We entered into an agreement with Thermo Fisher Scientific, or Thermo Fisher, to develop and commercialize a companion diagnostic test to identify NSCLC patients with RET fusions for use with BLU-667.
- We nominated two discovery programs for undisclosed kinase targets.
- We ended 2017 with cash, cash equivalents and investments of \$673.4 million, which we believe will be sufficient to enable us to fund our operating expenses and capital expenditure requirements into the middle of 2020.
- We maintained a high employee engagement rate and a turnover rate that was significantly below the industry average.

As described in more detail below, based on the significant advances we made on our 2017 corporate performance goals (including the overachievement on some goals balanced against the underachievement of others), upon the recommendation of the compensation committee, our board of directors determined that we achieved our 2017 corporate performance goals at 115%.

Our compensation committee seeks to ensure that our compensation program is aligned with the interests of our stockholders and our business goals and that the total compensation paid to each of our named executive officers is fair, reasonable and competitive. As described in more detail below, key elements of our compensation program include the following:

Compensation Element	Purpose	Features
<i>Base salary</i>	To attract, motivate and retain superior executive talent.	Fixed component of pay to provide financial stability, based on responsibilities, experience, individual contributions and peer company data.
<i>Annual performance-based cash incentive compensation</i>	To provide incentives that motivate and reward the achievement of performance goals that directly correlate to the enhancement of stockholder value, as well as to facilitate executive retention.	Variable component of pay based on annual quantitative and qualitative achievement of corporate performance goals and, in the case of executive officers other than our chief executive officer, the achievement of individual performance goals.
<i>Equity incentive compensation</i>	To align executives' interests with those of stockholders through long-term incentives linked to the achievement of specific performance, which we believe serves to enhance short- and long-term value creation for our stockholders.	Long-term compensation in the form of stock options, which incentives employee retention and seeks to align executive and stockholder interests.

In addition to our direct compensation elements, the following features of our compensation program are designed to align with stockholder interests and market best practices while being able to achieve our stated objectives and philosophy and support our ambitious business goals:

What We Do	What We Don't Do
<input checked="" type="checkbox"/> Maintain an industry-specific peer group for benchmarking compensation	<input checked="" type="checkbox"/> Allow hedging or pledging without pre-approval by the Audit Committee
<input checked="" type="checkbox"/> Target compensation based on market norms	<input checked="" type="checkbox"/> Re-price stock options
<input checked="" type="checkbox"/> Deliver executive compensation primarily through performance-based pay	<input checked="" type="checkbox"/> Provide perquisites
<input checked="" type="checkbox"/> Set challenging corporate performance goals	<input checked="" type="checkbox"/> Provide supplemental executive retirement plans
<input checked="" type="checkbox"/> Consult with an independent compensation advisor on compensation levels and practices	<input checked="" type="checkbox"/> Provide tax gross-up payments for any change-of-control payments
<input checked="" type="checkbox"/> Offer market-competitive benefits for executives that are consistent with the rest of our employees	

Compensation Objectives and Philosophy

Our compensation committee believes that the most effective compensation program is one that rewards value creation for stockholders and progress towards achieving our mission and that promotes company performance. The objectives of our compensation program are to:

- attract, motivate and retain superior executive talent;
- provide incentives that motivate and reward the achievement of performance goals that directly correlate to the enhancement of stockholder value, as well as to facilitate executive retention; and
- align executives' interests with those of stockholders through long-term incentives linked to the achievement of specific performance, which we believe serves to enhance short- and long-term value creation for our stockholders.

To achieve its objectives, our compensation committee evaluates our executive compensation program with the goal of setting total compensation at levels that align with our culture, total rewards strategy, size and life stage. Specifically, our compensation committee targets key elements of our compensation programs as follows:

- ***Base salaries:*** Our compensation committee targets base salaries at the 50th percentile of our peer group, as discussed below, and seeks to ensure that such salaries reflect each executive's level of experience, performance and responsibility and that such levels are competitive with those of other companies in our industry and region that compete with us for executive talent.
- ***Annual performance-based cash incentive compensation:*** Our compensation program links a substantial portion of our named executive officers' compensation to the achievement of scientific, business, organizational and operational goals such as progress in our clinical trials and research programs; key research and development achievements; maintaining the strong financial health of the company, including implementation of appropriate financing strategies; maintaining key strategic relationships; addition and development of internal competencies, including retention of high-performing employees; and achievement of desired financial metrics. Our compensation committee targets annual performance-based cash incentive compensation at the 50th percentile of our peer group.
- ***Equity incentive compensation:*** In addition, we provide a significant portion of our executive compensation in the form of stock options that vest over time, which we believe helps to retain our executives and aligns their interests with those of our stockholders by allowing them to participate in the longer term success of our company as reflected in the appreciation of our stock price. Our

compensation committee considers a host of factors in comparison to the named peers when determining equity incentive compensation for our named executive officers, including annual long-term incentive values, annual equity awards expressed as a percent of total shares outstanding, total annual and cumulative dilution, the retentive value of outstanding awards and total equity ownership. Given the dynamic biopharmaceutical market, the compensation committee does not overemphasize any one perspective. Rather, the committee takes a holistic perspective, further considering the achievement of company goals and how that impacts total shareholder return, when determining actual award levels for the named executive officers, which the committee generally targets at the 50th percentile of our peer group.

We believe that targeting overall compensation in this manner is necessary and appropriate in order to attract and retain the quality of talent we need to successfully grow our business, achieve our challenging goals, sustain strong performance, and seek to ensure that compensation levels are competitive with those of other companies against which we compete for talent. However, any given individual employee's compensation may vary from the targeted pay framework, based on the unique responsibilities and requirements of his or her position, his or her experience and other qualifications, internal parity relative to similar positions within the company, and individual or company performance relative to performance goals and the peer group to ensure appropriate pay-for-performance alignment. While we do not have a formal or informal policy for allocating between long-term and short-term compensation, between cash and non-cash compensation or among different forms of non-cash compensation, we generally strive to provide our named executive officers with a balance of short-term and long-term incentives to encourage consistently strong performance.

Overview of Executive Compensation Process

As a part of determining named executive officer performance and compensation, our compensation committee receives recommendations from our chief executive officer, other than with respect to his own compensation and performance. Our chief executive officer's performance is evaluated and approved directly by the compensation committee, taking into account input from our board of directors. Evaluations of each of our named executives is based on our overall corporate performance against annual goals that are approved by the board of directors at the beginning of each year and, in the case of executive officers other than our chief executive officer, the achievement of individual goals, as discussed in more detail below.

The compensation committee has the sole authority to retain, at our expense, one or more third-party compensation consultants to assist the compensation committee in performing its responsibilities. The compensation committee may terminate the services of the consultant if the compensation committee deems it appropriate. In 2017, the compensation committee utilized the services of Radford, an Aon Hewitt company, to assist it in fulfilling its responsibilities. Radford was retained exclusively by the compensation committee and has not been retained by management to perform any work for the company other than projects performed at the direction of the compensation committee. Radford provides analysis and recommendations regarding:

- trends and emerging topics with respect to executive compensation;
- peer group selection for executive compensation benchmarking;
- compensation practices of our peer group, including executive severance arrangements;
- compensation philosophy and programs for executives and broad-based employees;
- stock utilization and other metrics; and
- board of directors compensation.

In addition, we subscribe to Radford's various global annual and specialized life sciences and general industry surveys on an ongoing basis. Radford advised the compensation committee on all of the principal aspects of executive compensation, including executive new hire compensation arrangements. Radford consultants attend meetings of the compensation committee, including executive sessions in which executive compensation issues are discussed, when requested to do so. Radford reports to the compensation committee and not to management, although it meets with management for purposes of gathering information for its analyses and recommendations. The compensation committee annually evaluates its engagement of compensation consultants, and selected Radford to advise with respect to compensation matters based on Radford's industry experience and reputation, which our compensation committee

concluded give Radford useful context and knowledge to advise it. The compensation committee has assessed the independence of Radford pursuant to SEC and Nasdaq rules and concluded that no conflict of interest exists that would prevent Radford from independently representing the compensation committee.

Annual base salaries for the year, and annual performance-based cash incentives and equity incentive awards for all employees for the prior year are generally determined in the first quarter of the year based on company and individual performance of the prior year, as well as other factors, including compensation trends in the biopharmaceutical industry and among our benchmark peers. In February 2017, the compensation committee approved 2017 base salaries, 2016 annual cash incentives and annual stock option awards for each of our named executive officers, including our chief executive officer. With respect to our chief executive officer, the compensation committee reviewed his performance and presented its recommendations to our board of directors prior to the compensation committee approving the 2017 base salary, 2016 annual cash incentive and annual stock option award for our chief executive officer. In February 2018, the compensation committee approved 2018 base salaries, 2017 annual cash incentives and annual stock option awards for each of our named executive officers, including our chief executive officer. With respect to our chief executive officer, the compensation committee reviewed his performance and presented its recommendations to our board of directors prior to the compensation committee approving the 2018 base salary, 2017 annual cash incentive and annual stock option award for our chief executive officer.

Defining and Comparing Compensation to Market Benchmarks

In evaluating the total compensation of our named executive officers, our compensation committee, using information provided by Radford, establishes a peer group of publicly traded companies in the biopharmaceutical and biotechnology industries that is selected based on a balance of the following criteria:

- companies whose number of employees, stage of development and market capitalization are similar, though not necessarily identical, to ours;
- companies with similar executive positions to ours;
- companies against which we believe that we compete for executive talent; and
- public companies based in the United States whose compensation and financial data are available in proxy statements or through widely available compensation surveys.

Based on these criteria, our peer group for 2017, referred to as our 2017 peer group, as approved by our compensation committee, was comprised of the following 20 companies:

Acceleron Pharma Inc.	Cytokinetics, Incorporated	Sangamo Therapeutics, Inc.
Achillion Pharmaceuticals, Inc.	Editas Medicine, Inc.	Seres Therapeutics, Inc.
Aduro BioTech, Inc.	Epizyme, Inc.	Spark Therapeutics, Inc.
Alder BioPharmaceuticals, Inc.	Five Prime Therapeutics, Inc.	Voyager Therapeutics, Inc.
Arrowhead Pharmaceuticals, Inc.	Loxo Oncology, Inc.	Xencor, Inc.
bluebird bio, Inc.	MacroGenics, Inc.	ZIOPHARM Oncology, Inc.
ChemoCentryx, Inc.	Sage Therapeutics, Inc.	

The compensation committee believes the compensation practices of our peer group provide us with appropriate compensation benchmarks for evaluating the compensation of our named executive officers. Notwithstanding the similarities of our peer group to Blueprint Medicines, due to the nature of our business, we compete for executive talent with many companies that are larger and more established than we are or that possess greater resources than we do, as well as with prestigious academic and non-profit institutions. Other considerations, including market factors, the experience level of the executive and the executive's performance against established corporate goals and individual objectives, may require that our compensation committee vary from its historic compensation practices or deviate from its general compensation philosophy under certain circumstances.

We believe that the compensation practices of our 2017 peer group provided us with appropriate compensation benchmarks for evaluating the compensation of our named executive officers during 2017. Due to the nature of our business, we compete for executive talent with many public companies that are larger and more established than we are or that possess greater resources than we do, and with smaller private companies that may be able to offer greater equity compensation potential, as well as with prestigious academic and non-profit institutions.

For purposes of compensation for 2018, our compensation committee, with the advice of Radford, examined our 2017 peer group in light of our continued growth throughout 2017, which we anticipate to continue in 2018, the stage of development of our clinical programs and changes in our market capitalization. With reference to market capitalization, therapeutic area, stage of development, number of employees and other key business metrics, as well as whether the companies in our 2017 peer group suffered any clinical setbacks or experienced reduced growth, our compensation committee approved the following 19 companies as our 2018 peer group:

Acceleron Pharma Inc.	Editas Medicine, Inc.	Sage Therapeutics, Inc.
Aduro BioTech, Inc.	Epizyme, Inc.	Sangamo Therapeutics, Inc.
Agios Pharmaceuticals, Inc. *	Five Prime Therapeutics, Inc.	Spark Therapeutics, Inc.
Alder BioPharmaceuticals, Inc.	Juno Therapeutics, Inc. *	Ultragenyx Pharmaceutical Inc. *
Amicus Therapeutics, Inc. *	Loxo Oncology, Inc.	Xencor, Inc.
AveXis, Inc. *	MacroGenics, Inc.	ZIOPHARM Oncology, Inc.
bluebird bio, Inc.		

* addition to 2018 peer group

Executive Compensation Elements

The primary elements of our executive compensation program are base salary, annual performance-based cash incentives and equity incentive awards. Our compensation committee uses sound judgment to allocate long-term and short-term compensation for our named executive officers, in alignment with our pay-for-performance philosophy and the long-term interests of stockholders. After reviewing information provided by our compensation consultant and other relevant data, our compensation committee exercises its judgment to determine what it believes to be the appropriate level and mix of the various compensation components. We generally strive to provide our named executive officers with a balance of short-term and long-term incentives to encourage consistently strong performance. Ultimately, the objective in allocating between long-term and currently paid compensation is to ensure adequate base compensation to attract and retain talent, while providing incentives to maximize long-term value for our company and our stockholders. Therefore, we provide cash compensation in the form of base salary to meet competitive salary norms and reward performance on an annual basis and in the form of incentive compensation to incent and reward performance based on specific annual goals. To further focus our executives on longer-term performance, we rely upon equity-based awards that vest over a meaningful period of time, thereby reinforcing stockholder value creation. In addition, we provide our executives with benefits that are available to all employees, including medical, vision and dental insurance; life and disability insurance; medical and dependent care flexible spending accounts; a 401(k) plan; and an opportunity to invest in our company pursuant to our employee stock purchase plan. Finally, we offer our executives severance benefits to incentivize them to continue to strive to achieve stockholder value in connection with change in control situations.

Base Salary

We use base salaries to recognize the experience, skills, knowledge and responsibilities required of all our employees, including our named executive officers. None of our named executive officers is currently party to an employment agreement or other agreement or arrangement that provides for automatic or scheduled increases in base salary. However, on an annual basis, our compensation committee reviews and evaluates, with input from our chief executive officer, the need for adjustment of the base salaries of our executive officers (other than our chief executive officer), and our compensation committee reviews and evaluates, with input from our chief executive officer, the need for adjustment of the base salary of our chief executive officer, in each case, based on among other things, changes and expected changes in the scope of an executive officer's responsibilities, including promotions, the individual contributions made by and performance of the executive officer during the prior year, our overall growth and development as a company and general salary or other market trends in our industry.

In February 2017, our compensation committee approved salary increases for each of our named executive officers (other than Dr. Murray, who joined the company in October 2017) based on a review of market data provided by Radford, the current compensation levels of our named executive officers, the company's performance against the 2016 corporate performance goals and, in the case of executive officers other than our chief executive officer, each executive

officer's achievement of individual goals. The table below sets forth the adjustments to base salary, in dollars and as a percentage, for each of our named executive officers:

Name	2016	2017	Increase (%)
	Base Salary (\$)	Base Salary (\$)	
Jeffrey W. Albers	\$ 475,000	\$ 515,375	8.5 %
Michael Landsittel	\$ 250,900	\$ 260,936	4.0 %
Anthony L. Boral, M.D., Ph.D.	\$ 375,000	\$ 411,000	9.6 %
Kate Haviland	\$ 340,000	\$ 353,451	4.0 %
Christopher K. Murray, Ph.D. (1)	\$ —	\$ 370,000	— %

(1) Dr. Murray joined the company as our senior vice president, technical operations, in October 2017.

Annual Performance-Based Cash Incentives

Our board of directors has adopted a senior executive cash incentive bonus plan, or the executive bonus plan, which provides for cash bonus payments to eligible executives based upon the attainment of performance targets established by the compensation committee for each executive during the first quarter of the applicable fiscal year. The payment targets are related to individual performance measures or objectives, which we refer to as individual performance goals, and corporate financial and operational measures or objectives, which we refer to as corporate performance goals. Each executive officer who is selected to participate in the executive bonus plan has a target bonus opportunity set for each performance period. Subject to the rights contained in any agreement between the executive officer and the company, an executive officer must be employed by the company on the bonus payment date to be eligible to receive a bonus payment. The executive bonus plan also permits the compensation committee to approve additional bonuses to executive officers in its sole discretion. Each of our named executive officers is eligible to participate in the executive bonus plan. Below is the list of the company's 2017 corporate performance goals, which were approved by our board of directors in December 2016 and considered by our executive leadership team and compensation committee in their respective assessment of the company's achievement of corporate performance goals for 2017:

- ***Demonstrate meaningful patient benefit in genomically selected patients to rapidly deliver differentiated medicines to patients globally:***
 - Obtain breakthrough therapy designation in at least one indication;
 - Complete specified enrollment and development goals for our ongoing Phase 1 clinical trial for BLU-554 in advanced HCC;
 - Complete enrollment of expansion cohorts in our ongoing Phase 1 NAVIGATOR trial;
 - Qualify additional drug substance and drug product suppliers;
 - Initiate a specified number of additional indication expansion clinical trials for avapritinib;*
 - Initiate expansion portion of our ongoing Phase 1 EXPLORER trial; and
 - Demonstrate anti-tumor activity for BLU-667 in RET-altered NSCLC or thyroid cancer.
- ***Continue to build a diverse discovery pipeline of potentially transformative medicines targeting kinases that drive genomically defined diseases:***
 - Initiate GLP toxicology studies for our FOP discovery program;
 - Nominate a development candidate for our discovery program for fibrolamellar carcinoma;
 - Demonstrate *in vivo* pharmacological and efficacy relationships for certain of our discovery programs;* and
 - Initiate three new discovery programs.*

- ***Build a fully-integrated biotechnology company that responsibly manages a portfolio of therapeutics, both independently and through collaboration:***
 - Communicate key data, including a specified number of oral data presentations, publications and submitted abstracts in 2017;
 - Ensure a specified cash balance as of December 31, 2017;*
 - Complete a collaboration or geographic partnership; and
 - Foster a differentiated culture, build upon leadership capabilities and achieve specified targets for employee engagement and turnover rates.

* These corporate performance goals include highly sensitive competitive data, including pre-clinical, clinical and financial targets. We do not disclose the specific portions of these goals because we believe that such disclosure would result in competitive harm to us. We purposely set these goals at aggressive levels. Revealing certain elements of these goals could potentially reveal insights about our pre-clinical, clinical and strategic plans or objectives that our competitors or potential collaborators could use against us.

In January 2017, our chief executive officer recommended to our compensation committee that our company's performance against 2017 corporate performance goals be achieved at 115%, based on the following significant achievements in 2017:

- In June 2017, the FDA granted breakthrough therapy designation to avapritinib for the treatment of patients with unresectable or metastatic GIST harboring the PDGFR α D842V mutation.
- We established registration strategies for avapritinib in PDGFR α -driven GIST and KIT-driven GIST, and we began to prepare for a potential commercial launch of avapritinib.
- We expanded our ongoing Phase 1 NAVIGATOR trial to increase the size of the cohort evaluating the treatment of third line or later GIST patients with avapritinib, and we added a new cohort to evaluate second line GIST patients with avapritinib.
- In October 2017, we presented updated data from our ongoing Phase 1 clinical trial for BLU-554 in advanced HCC at the ESMO 2017 Congress.
- In June 2017 and November 2017, respectively, we reported updated data for avapritinib from the dose escalation and expansion portions of our ongoing Phase 1 NAVIGATOR trial at the 2017 ASCO Annual Meeting and the CTOS Annual Meeting.
- In December 2017, we reported updated data for avapritinib from the dose escalation portion of our ongoing EXPLORER trial in the oral plenary session at the ASH Annual Meeting.
- We initiated our Phase 1 ARROW trial for BLU-667 in RET-altered NSCLC, MTC and other advanced solid tumors, and in December 2017, we reported preliminary evidence of clinical activity in patients with NSCLC, including patients with KIF5B and other RET fusions, and RET-altered MTC.
- In the fourth quarter of 2017, we completed the transition of our former collaboration with Alexion Pharma Holding, and we nominated a development candidate, BLU-782, for our wholly-owned discovery program targeting the kinase ALK2 for the treatment of FOP.
- In the fourth quarter of 2017, we entered into an agreement with Thermo Fisher to develop and commercialize a companion diagnostic test to identify NSCLC patients with RET fusions for use with BLU-667.
- In 2017, we nominated two discovery programs for undisclosed kinase targets.
- We ended 2017 with cash, cash equivalents and investments of \$673.4 million, which we believe will be sufficient to enable us to fund our operating expenses and capital expenditure requirements into the middle of 2020.

- We maintained a high employee engagement rate and a turnover rate that was significantly below the industry average.

Based on the significant advances we made on our 2017 corporate performance goals (including the overachievement on some goals balanced against the underachievement of others), upon the recommendation of the compensation committee, our board of directors determined that our company achieved the 2017 corporate performance goals at 115%. Based on company and individual performance, the compensation committee approved the following 2017 cash incentive payments for each of our named executive officers:

Name	Target Award (% of Base Salary) (1)	2017 Actual Cash Incentive Payment (\$)	2017 Actual Cash Incentive Payment (% of Target Award)
Jeffrey W. Albers	55 %	\$ 325,975	115 %
Michael Landsittel	30 %	\$ 93,154	119 %
Anthony L. Boral, M.D., Ph.D.	35 %	\$ 162,551	113 %
Kate Haviland	35 %	\$ 141,027	114 %
Christopher K. Murray, Ph.D. (2)	35 %	\$ —	—

- (1) For 2017, Mr. Albers' target bonus opportunity was based solely on corporate performance goals, the target bonus opportunity for Mr. Landsittel was based 50% on individual performance goals and 50% on corporate performance goals, and the target bonus opportunity for each of our other named executive officers was based 25% on individual performance goals and 75% on corporate performance goals.
- (2) Dr. Murray joined the company as our senior vice president, technical operations, in October 2017. Under the terms of Dr. Murray's employment agreement, he was not eligible to receive a bonus for the year ended December 31, 2017.

Equity Incentive Awards

Although we do not have a formal policy with respect to the grant of equity incentive awards to our executive officers or any formal equity ownership guidelines applicable to them, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our executives and our stockholders. In addition, we believe that equity grants with a time-based vesting feature promote executive retention because this feature incentivizes our executive officers to remain in our employment during the vesting period. Accordingly, our compensation committee and board of directors periodically review the equity incentive compensation of our named executive officers and from time to time may grant equity incentive awards to them in the form of stock options.

Equity compensation represents the largest at-risk component of our named executive officers' compensation arrangements. We believe that it is appropriate to align the interests of our named executive officers with those of our stockholders to achieve and sustain long-term stock price growth. We use stock options to compensate our named executive officers in the form of initial grants in connection with the commencement of employment, and we generally grant stock options on an annual basis thereafter. None of our named executive officers are currently party to an employment agreement that provides for an automatic award of stock options or performance-based stock awards.

Any stock options granted to our executive officers will have an exercise price equal to the closing price of our common stock as reported on the Nasdaq Global Select Market on the date of grant, will have time-based vesting and will expire ten years after the date of grant. The initial stock options granted to executive officers upon the commencement of their employment vest as to 25% of the shares underlying the option on the first anniversary of the grant date and as to an additional 1/48th of the shares underlying the option monthly thereafter. The annual stock options granted to executive officers vest as to 1/48th of the shares underlying the option on the one-month anniversary of the grant date and as to an additional 1/48th of the shares underlying the option monthly thereafter. Except in the case of death or disability, vesting and exercise rights for any options granted to executive officers cease shortly after termination of employment. In specified termination and change in control circumstances, equity awards held by our named executive officers are subject to accelerated vesting. See "—Severance and Change in Control Benefits" below for further information.

In determining the size of the annual stock option grants to our named executive officers, our compensation committee, with the assistance from Radford, considers our company performance, individual performance, the potential for enhancing the creation of value for our stockholders, the company's broader organizational equity needs and overall dilution, as well as industry and peer group benchmark data. We evaluate our equity award program on an annual basis

to ensure that it appropriately links to our long-term performance by aligning the interests of our executives and our stockholders, remains competitive with industry and peer benchmarks and is consistent with our overall equity needs and dilution levels.

In February 2017, our compensation committee granted stock options to our named executive officers in the amounts set forth in the table below.

<u>Name</u>	<u>Option Award (#)</u>
Jeffrey W. Albers	170,000
Michael Landsittel	20,000
Anthony L. Boral, M.D., Ph.D.	45,000
Kate Haviland	40,000
Christopher K. Murray, Ph.D. (1)	75,000

(1) Dr. Murray joined the company as our senior vice president, technical operations, in October 2017. Under the terms of Dr. Murray’s employment agreement, Dr. Murray was granted a stock option to purchase 75,000 shares of our common stock. Dr. Murray did not receive an annual equity incentive award in 2017.

Other Compensation Policies and Practices

Health and Welfare Benefits. Our named executive officers are eligible to participate in all of our employee benefit plans, including our medical, dental, vision, life and disability insurance plans and commuting benefits plan, in each case, on the same basis as other employees.

401(k) Plan. We maintain a 401(k) plan that is intended to qualify under Section 401(k) of the Internal Revenue Service Code of 1986, as amended, or the Internal Revenue Code. In general, all of our employees, including our named executive officers, are eligible to participate in the 401(k) plan. Under the 401(k) plan, employees may elect to reduce their current compensation by up to the statutorily prescribed annual limit, equal to \$18,000 in 2017, and to have the amount of such reduction contributed to the 401(k) plan. Participants who will turn age 50 in 2017 are also eligible to make “catch-up” contributions, which in 2017 may be up to an additional \$6,000 above the statutory limit. We currently match 50% of an employee’s 401(k) contributions up to a maximum of 3% of the participant’s compensation. Matching contributions are 100% vested immediately. Matching contributions made to each of our named executive officers are included in the “Summary Compensation Table” below.

Employee Stock Purchase Plan. Pursuant to our employee stock purchase plan, employees, including our named executive officers, have an opportunity to purchase our common stock at a discount on a tax-qualified basis through payroll deductions. The employee stock purchase plan is designed to qualify as an “employee stock purchase plan” under Section 423 of the Internal Revenue Code. The purpose of the employee stock purchase plan is to encourage our employees, including our named executive officers, to become our stockholders and better align their interests with those of our other stockholders.

Perquisites. We do not provide perquisites or personal benefits to our named executive officers.

Anti-Hedging and Pledging Policy. Our insider trading policy expressly prohibits all of our employees, including our named executive officers, as well as our directors, from engaging in speculative transactions in our stock, including short sales, puts/calls, hedging transactions and margin accounts or pledges, in each case, without prior approval of our audit committee.

No Tax Gross-ups. We do not provide for any tax gross-up payments to our named executive officers.

Accounting and Tax Considerations. In 2017, we considered the provisions of Section 162(m) of the Internal Revenue Code as then in effect and related treasury regulations that restricted deductibility of compensation paid to our named executive officers (other than our principal financial officer) to the extent such compensation exceeded \$1,000,000 and did not qualify for an exception as commission-based compensation or “qualified performance-based compensation. In 2017, the compensation committee endeavored to structure compensation to maintain deductibility under Section 162(m) of the Internal Revenue Code to the extent practicable while maintaining the ability to provide competitive, compensation program for our named executive officers. Beginning in 2018, recently-enacted tax legislation (1) expands the scope of Section 162(m) such that all named executive officers are “covered employees” and anyone who was a named executive officer in any year after 2016 will remain a covered employees for as long as he or she (or his or her beneficiaries) receive compensation from the us and (2) eliminates the exception to the deduction limit

for commission-based compensation and performance-based compensation except with respect to certain grandfathered arrangements in effect as of November 2, 2017. Accordingly, any compensation paid to a covered employee in excess of \$1,000,000 will be non-deductible going forward. Our compensation committee believes that stockholder interests are best served if the compensation committee retains maximum flexibility to design executive compensation programs that meet stated business objectives. For these reasons, while considering tax deductibility as a factor in determining executive compensation, our compensation committee does not plan to limit such compensation to those levels that will be deductible for purposes of Section 162(m) of the Internal Revenue Code, particularly in light of the elimination of the expansion of the covered employee group and the elimination of the exception for performance-based compensation.

Stock Ownership Guidelines. We have not adopted stock ownership guidelines for our executives.

Clawback Policy. We have not adopted a clawback policy for executive compensation.

2018 Executive Compensation

Base Salary Compensation for Our Named Executive Officers in 2018

With respect to Mr. Albers, our chief executive officer, in the first quarter of 2018, our compensation committee reviewed Mr. Albers' overall compensation and determined, based on his accomplishments during the year and comparison to the base salaries of chief executive officers in our 2018 peer group, to increase his annual base salary to \$541,144 from \$515,375 effective January 1, 2018. In addition, in the first quarter of 2018, our compensation committee approved merit increases in base salary for each of our other named executive officers effective January 1, 2018, based upon the company's achievement of 2017 corporate performance goals, each executive officer's achievement of individual performance goals and the comparison to the base salary of similar executive officers in our 2018 peer group. The table below sets forth the adjustments to base salary, in dollars and as a percentage, for each of our named executive officers:

Name	2017 Base Salary	2018 Base Salary	Increase (%)
Jeffrey W. Albers	\$ 515,375	\$ 541,144	5.0 %
Michael Landsittel	\$ 260,936	\$ 281,678	7.9 %
Anthony L. Boral, M.D., Ph.D.	\$ 411,000	\$ 447,440	8.9 %
Kate Haviland	\$ 353,451	\$ 392,589	11.0 % ⁽¹⁾
Christopher K. Murray, Ph.D. (2)	\$ 370,000	\$ 370,000	—

- (1) As noted above, our compensation committee targets base salaries at the 50th percentile of our peer group for the applicable year. Ms. Haviland's base salary for 2017 was below the 25th percentile for our 2018 peer group. Ms. Haviland's increase in base salary for 2018 is between the 25th and 50th percentile for her role as compared to similar executive officers in our 2018 peer group.
- (2) Dr. Murray joined the company as our senior vice president, technical operations, in October 2017 and was not eligible to receive a merit increase in base salary for the year ended December 31, 2017.

Cash Incentive Compensation for Our Named Executive Officers in 2018

In February 2018, our compensation committee approved target bonus opportunities for each of our named executive officers for 2018. The target bonus opportunity for Mr. Albers, our chief executive officer, for 2018 will be based solely on 2018 corporate performance goals, the target bonus opportunity for Mr. Landsittel for 2018 will be based 50% on individual performance goals and 50% on 2018 corporate performance goals, the target bonus opportunity for Dr. Murray for 2018 will be based 40% on individual performance goals and 60% on 2018 corporate performance goals and the target bonus opportunity for each of our other named executive officers for 2018 will be based 25% on individual performance goals and 75% on 2018 corporate performance goals. The table below shows the target award as a percentage of each named executive officer's annual base salary in 2018, as well as the target cash incentive payment in dollars for 2018.

Name	2018 Target Award (% of Base Salary)	2018 Target Cash Incentive Payment (\$)
Jeffrey W. Albers	55 %	\$ 297,629
Michael Landsittel	30 %	\$ 84,503
Anthony L. Boral, M.D., Ph.D.	40 %	\$ 178,976
Kate Haviland	40 %	\$ 157,036
Christopher K. Murray, Ph.D.	35 %	\$ 129,500

In determining the 2018 actual cash incentive compensation for our named executive officers, our compensation committee and board of directors will review the performance of the company during 2018. Our compensation committee retains the discretion to adjust upward or downward any bonus award as it deems appropriate. We expect to pay any cash incentive compensation in the first quarter of 2019.

Summary Compensation Table

The following table sets forth information regarding compensation earned by each of our named executive officers during the years indicated.

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus (\$)</u>	<u>Option Awards (\$)(1)</u>	<u>Non-equity Incentive Plan Compensation (\$)(2)</u>	<u>All Other Compensation (\$)(3)</u>	<u>Total (\$)</u>
Jeffrey W. Albers (4) <i>President and Chief Executive Officer</i>	2017	515,375	—	4,088,976	325,975	8,100	4,938,426
	2016	476,827 (5)	—	1,407,644	273,125	7,950	2,165,546
	2015	416,667	—	698,776	210,375	—	1,325,818
Michael Landsittel <i>Vice President, Finance</i>	2017	260,936	—	481,056	93,154	7,746	842,892
	2016	251,865	—	100,546	80,915	7,543	440,869
	2015	230,000	—	11,645	51,980	2,196	295,821
Anthony L. Boral, M.D., Ph.D. (6) <i>Chief Medical Officer</i>	2017	411,000	—	1,082,376	162,551	8,100	1,664,027
	2016	376,442	—	402,184	146,016	7,950	932,592
	2015	291,876	100,000 (7)	671,520	97,692	3,250	1,164,338
Kate Haviland (8) <i>Chief Business Officer</i>	2017	353,451	—	962,112	141,027	8,100	1,464,690
	2016	338,692	75,000 (9)	1,092,040	130,937	7,950	1,644,619
Christopher K. Murray, Ph.D. (10) <i>Senior Vice President, Technical Operations</i>	2017	83,962 (11)	—	3,452,790	—	2,519	3,539,270

- (1) These amounts represent the aggregate grant date fair value of awards granted to our named executive officers in 2016 and 2015, respectively, computed in accordance with the Financial Accounting Standards Board Accounting Standards Codification Topic 718, or FASB ASC Topic 718. See Note 11 to the audited consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2017 regarding assumptions underlying the valuation of equity awards.
- (2) Amounts represent awards to our named executive officers under our annual performance-based cash incentive program. See “Annual Performance-based Cash Incentives” for a description of that program. Annual cash incentive compensation for 2017 was earned in 2017 and paid in 2018, annual cash incentive compensation for 2016 was earned in 2016 and paid in 2017 and annual cash incentive compensation for 2015 was earned in 2015 and paid in 2016.
- (3) Amounts represent the dollar value of matching contributions to the qualified 401(k) plan.
- (4) Mr. Albers also serves as a member of our board of directors but does not receive any additional compensation for his service as a director.
- (5) In 2016, all of our employees, including our chief executive officer, received an extra payroll payment in the first quarter of 2016 equal to the employee’s 2016 daily pay rate times one day, less applicable taxes and withholding, due to 2016 being a leap year.
- (6) Dr. Boral joined our company as chief medical officer in February 2015.
- (7) Amount represents a cash signing bonus of \$100,000 paid to Dr. Boral in connection with the commencement of his employment in February 2015.
- (8) Ms. Haviland joined our company as chief business officer in January 2016.
- (9) Amount represents a cash signing bonus of \$75,000 paid to Ms. Haviland in connection with the commencement of her employment in January 2016.
- (10) Dr. Murray joined our company as senior vice president, technical operations in October 2017.
- (11) Amount represents the salary actually paid to Dr. Murray for his services in 2017 and does not represent Dr. Murray’s annualized base salary.

Grants of Plan-Based Awards

The following tables sets forth information concerning each grant of an award made to a named executive officer during the fiscal year ended December 31, 2017 under any plan, contract, authorization or arrangement pursuant to which cash, securities, similar instruments or other property may be received:

<u>Name</u>	<u>Date of Grant</u>	<u>Date of Compensation Committee Approval</u>	<u>Estimated Future Payouts Under Non-Equity Incentive Plan Awards: Target (\$)(1)</u>	<u>All Other Option Awards: Number of Securities Underlying Options (#)</u>	<u>Exercise or Base Price of Option Awards (\$)(2)</u>	<u>Grant Date Fair Value of Stock and Option Awards (\$)(3)</u>
Jeffrey W. Albers.	2/16/2017	2/16/2017	283,456	170,000	36.05	4,088,976
Michael Landsittel.	2/16/2017	2/16/2017	78,281	20,000	36.05	481,056
Anthony L. Boral, M.D., Ph.D.	2/16/2017	2/16/2017	143,850	45,000	36.05	1,082,376
Kate Haviland	2/16/2017	2/16/2017	123,708	40,000	36.05	962,112
Christopher K. Murray, Ph.D. (4)	11/01/2017	9/28/2017	—	75,000	71.80	3,452,790

- (1) Represents the target amount of each executive's cash payments under our 2017 annual performance-based cash incentive program as established as described in "Compensation Discussion and Analysis" above. Actual payments made for 2017 are provided in the "Summary Compensation Table." As there are no threshold or maximum amounts with respect to these performance-based cash payments, the columns "Threshold (\$)" and "Maximum (\$)" are inapplicable and therefore have been omitted from this table.
- (2) The exercise price of these stock options is equal to the closing price of our common stock as reported on the Nasdaq Global Select Market on the grant date.
- (3) These amounts represent the aggregate grant date fair value of awards granted to our named executive officers in 2017, computed in accordance with FASB ASC Topic 718. See Note 11 to the audited consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2017 regarding assumptions underlying the valuation of equity awards.
- (4) Dr. Murray joined our company as senior vice president, technical operations in October 2017.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information concerning outstanding stock options for each of our named executive officers at December 31, 2017:

Name	Option Awards			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date
Jeffrey W. Albers	28,961	—	1.87	7/30/2024
	132,855 (1)	30,225	1.87	7/30/2024
	160,425 (2)	53,476	1.87	7/30/2024
	77,272 (3)	31,818	8.80	2/10/2025
	64,166 (4)	75,834	15.01	2/03/2026
	35,416 (5)	134,584	36.05	2/16/2027
Michael Landsittel	21,419 (6)	4,944	1.87	10/08/2024
	1,287 (3)	531	8.80	2/10/2025
	4,583 (4)	5,417	15.01	2/03/2026
	4,166 (5)	15,834	36.05	2/16/2027
Anthony L. Boral, M.D., Ph.D.	2,840 (3)	569	8.80	2/10/2025
	6,818 (3)	3,409	8.80	2/10/2025
	21,666 (7)	11,364	8.80	2/10/2025
	22,726 (7)	15,152	8.80	2/10/2025
	— (4)	5,774	15.01	2/03/2026
	18,333 (4)	15,893	15.01	2/03/2026
	9,375 (5)	35,625	36.05	2/16/2027
Kate Haviland	267 (8)	14,369	16.28	2/01/2026
	3,632 (8)	37,717	16.28	2/01/2026
	8,333 (5)	31,667	36.05	2/16/2027
Christopher K. Murray, Ph.D.	— (9)	75,000	71.80	11/01/2027

- (1) This option vests as follows: (i) 42,845 shares vested in four installments at a rate of 6,974 shares on September 21, 2016, and 11,957 shares on each of October 21, 2016 and November 21, 2016, and 11,957 on December 21, 2016; (ii) 90,010 shares vest in eight installments at a rate of 6,311 shares on May 21, 2017 and 11,957 shares on each of June 21, 2017, July 21, 2017, August 21, 2017, September 21, 2017, October 21, 2017, November 21, 2017 and December 21, 2017; and (iii) 30,225 shares vest in three installments at a rate of 6,311 shares on May 21, 2018, 11,957 shares on June 21, 2018 and 11,957 shares on July 21, 2018.
- (2) This option vested as to (i) 53,475 shares in five installments at a rate of 11,957 shares on each of August 21, 2015, September 21, 2015, October 21, 2015 and November 21, 2015 and 5,647 shares on December 21, 2015, (ii) 47,828 shares in four installments at a rate of 11,957 shares on each of January 21, 2016, February 21, 2016, March 21, 2016 and April 21, 2016 and (iii) 5,648 shares on May 21, 2016, and vests as to (i) 53,476 shares in five installments at a rate of 11,957 shares on each of January 21, 2017, February 21, 2017, March 21, 2017 and April 21, 2017 and 5,648 shares on May 21, 2017 and (ii) 53,476 shares in five installments at a rate of 11,957 shares on each of January 21, 2018, February 21, 2018, March 21, 2018 and April 21, 2018 and 5,648 shares on May 21, 2018.
- (3) This option vested with respect to 1/48th of the shares underlying the option on March 10, 2015 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through February 10, 2019.
- (4) This option vested with respect to 1/48th of the shares underlying the option on March 3, 2016 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through February 3, 2026.
- (5) This option vested with respect to 1/48th of the shares underlying the option on March 16, 2017 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through February 16, 2027.
- (6) This option vested with respect to 25% of the shares underlying the option on September 8, 2015 and vests to an additional 1/48th of the shares underlying the option each month thereafter through September 8, 2018.
- (7) This option vested with respect to 25% of the shares underlying the option on February 9, 2016 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through February 9, 2019.
- (8) This option vested with respect to 25% of the shares underlying the option on January 5, 2017 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through January 5, 2020.
- (9) This option vested with respect to 25% of the shares underlying the option on October 10, 2018 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through October 10, 2022.

Option Exercises and Stock Vested

The following table sets forth information concerning option exercises and stock vested for each of our named executive officers during the fiscal year ended December 31, 2017:

	Options Award	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise(\$)(1)
Jeffrey W. Albers	24,514	1,675,532
Michael Landsittel.	—	—
Anthony L. Boral, M.D., Ph.D.	20,000	928,000
Kate Haviland	44,015	1,676,521
Christopher K. Murray, Ph.D.	—	—

(1) The value realized when the stock options were exercised represents the excess of the closing price of our common stock as reported on the Nasdaq Global Select Market on the date of exercise over the exercise price of the stock options.

Employment, Severance and Change in Control Arrangements

We have entered into employment agreements with each of our named executive officers in connection with their employment with us. These employment agreements provide for “at will” employment. Such employment agreements established the named executive officer’s title, initial compensation arrangements and eligibility to participate in the employee benefit plans generally available to full-time employees, subject to the terms of those plans. We have also agreed to provide the following benefits under the employment agreements with each of our named executive officers.

Jeffrey W. Albers, Chief Executive Officer. Under the employment agreement with Mr. Albers, our chief executive officer, if Mr. Albers’ employment is terminated by us without cause (as defined in his employment agreement) or by Mr. Albers for good reason (as defined in his employment agreement), and subject to Mr. Albers’ execution of a release of potential claims against us, Mr. Albers will be entitled to receive: (i) a lump sum in cash in an amount equal to 12 months of base salary then in effect and (ii) a monthly cash payment for 12 months for medical and dental benefits or Mr. Albers’ COBRA health continuation period, whichever ends earlier. However, in the event that Mr. Albers’ employment is terminated by us without cause, or Mr. Albers terminates his employment with us for good reason, in either case within 12 months following the occurrence of a sale event (as defined in his employment agreement), in lieu of the severance payments and benefits described in the preceding sentence and subject to Mr. Albers’ execution of a release of potential claims against us, Mr. Albers will be entitled to receive: (i) a lump sum in cash in an amount equal to the sum of 18 months of Mr. Albers’ base salary then in effect plus one-and-one half times Mr. Albers’ target annual incentive compensation for the year in which the termination occurs, (ii) a monthly cash payment for 18 months for medical and dental benefits or Mr. Albers’ COBRA health continuation period, whichever ends earlier, and (iii) full and immediate vesting and exercisability of all time-based stock options and other time-based stock-based awards held by Mr. Albers.

Named Executive Officers Other Than Chief Executive Officer. Under the employment agreements with each of our other named executive officers, if the executive officer’s employment is terminated by us without cause (as defined in his or her employment agreement) or by the executive officer for good reason (as defined in his or her employment agreement), and subject to the executive officer’s execution of a release of potential claims against us, the executive officer will be entitled to receive: (i) a lump sum in cash in an amount equal to 12 months of base salary and (ii) a monthly cash payment for 12 months for medical and dental benefits or the executive officer’s COBRA health continuation period, whichever ends earlier. However, in the event that the executive officer’s employment is terminated by us without cause, or the executive officer terminates his or her employment with us for good reason, in either case within 12 months following the occurrence of a sale event (as defined in his or her employment agreement), in lieu of the severance payments and benefits described in the preceding sentence and subject to the executive officer’s execution of a release of potential claims against us, the executive officer will be entitled to receive: (i) a lump sum in cash in an amount equal to the sum of 12 months of the executive officer’s base salary then in effect plus the executive officer’s target annual incentive compensation for the year in which the termination occurs, (ii) a monthly cash payment for 12 months for medical and dental benefits or the executive officer’s COBRA health continuation period, whichever ends earlier, and (iii) full and immediate vesting and exercisability of all time-based stock options and other time-based stock-based awards held by the executive officer.

Potential Payments Upon Termination or Change in Control

The amount of compensation and benefits payable to each named executive officer under our current employment agreements in various termination and change in control situations has been estimated in the table below, which assumes that such termination or change in control occurred on December 31, 2017. The value of the equity vesting acceleration was calculated based on the assumption that the change in control and executive's employment termination occurred on December 29, 2017, the last business day of the fiscal year ended December 31, 2017. For purposes of the following table, we have used \$75.41 per share, which was the closing price of our common stock on the Nasdaq Global Select Market as of December 29, 2017, the last trading day of 2017, to estimate the value of our common stock upon acceleration. The value of the option vesting acceleration was calculated by multiplying the number of unvested shares underlying stock options subject to vesting acceleration as of December 29, 2017 by the difference between the closing price of our common stock as reported on the Nasdaq Global Select Market on December 29, 2017 and the exercise price for such unvested stock options.

Name	Benefit	Triggering Event		
		Sale Event Without Termination of Employment (\$)	Resignation for Good Reason or Termination Without Cause Before or More Than 12 Months Following a Sale Event (\$)	Resignation for Good Reason or Termination Without Cause Within 12 Months Following a Sale Event (\$)
Jeffrey W. Albers	Severance payments	—	515,375 (1)	773,063 (2)
	Cash incentive payments	—	—	425,184 (3)
	Health care continuation	—	19,899 (4)	29,849 (5)
	Acceleration of equity award vesting	—	—	18,152,515 (6)
	Total	—	535,274	19,380,611
Michael Landsittel	Severance payments	—	260,936 (1)	260,936 (1)
	Cash incentive payments	—	—	78,281 (7)
	Health care continuation	—	19,899 (4)	19,899 (4)
	Acceleration of equity award vesting	—	—	1,349,365 (6)
	Total	—	280,835	1,708,451
Anthony L. Boral, M.D., Ph.D.	Severance payments	—	411,000 (1)	411,000 (1)
	Cash incentive payments	—	—	143,850 (7)
	Health care continuation	—	19,899 (4)	19,899 (4)
	Acceleration of equity award vesting	—	—	4,742,092 (6)
	Total	—	430,899	5,316,841
Kate Haviland	Severance payments	—	353,451 (1)	353,451 (1)
	Cash incentive payments	—	—	123,708 (7)
	Health care continuation	—	19,899 (4)	19,899 (4)
	Acceleration of equity award vesting	—	—	4,326,258 (6)
	Total	—	373,350	4,823,316
Christopher K. Murray, Ph.D.	Severance payments	—	370,000 (1)	370,000 (1)
	Cash incentive payments	—	—	— (8)
	Health care continuation	—	19,899 (4)	19,899 (4)
	Acceleration of equity award vesting	—	—	270,750 (6)
	Total	—	389,899	660,649

- (1) Represents a lump sum in cash in an amount equal to 12 months of the named executive officer's base salary in effect as of December 31, 2017.
- (2) Represents a lump sum in cash in an amount equal to 18 months of Mr. Albers' base salary in effect as of December 31, 2017.
- (3) Represents a lump sum in cash in an amount equal to one-and-one half times Mr. Albers' target annual incentive compensation for the year ended December 31, 2017.
- (4) Represents a monthly cash payment for 12 months for continued medical and dental benefits for the named executive officer.
- (5) Represents a monthly cash payment for 18 months for continued medical and dental benefits for Mr. Albers.

- (6) Represents the acceleration of vesting as to 100% of the unvested equity awards held by the named executive officer. Pursuant to the terms of each named executive officer's employment agreement, if such named executive officer's employment is terminated by us without cause, or the named executive officer terminates his employment with us for good reason, in either case within 12 months following the occurrence of a sale event (as defined in the employment agreement), all unvested shares underlying time-based stock options and other time-based stock-based awards will accelerate and become vested and exercisable; provided that, if any stock options or other stock-based awards held by such named executive officer prior to the effective date of such named executive officer's employment agreement has accelerated vesting terms more favorable to the executive, then the vesting terms of such stock options or other stock-based awards shall apply.
- (7) Represents a lump sum in cash in an amount equal to one times the named executive officer's target annual incentive compensation for the year ended December 31, 2017.
- (8) Dr. Murray joined the company as our senior vice president, technical operations, in October 2017. Under the terms of Dr. Murray's employment agreement, he was not eligible to receive a bonus for the year ended December 31, 2017.

Other Agreements

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

Limitation of Liability and Indemnification

As permitted by Delaware law, our amended and restated certificate of incorporation, or certificate of incorporation, provides that no director of our company shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability (1) for any breach of the director's duty of loyalty to us or our stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) in respect of unlawful dividend payments or stock redemptions or repurchases, or (4) for any transaction from which the director derived an improper personal benefit. In addition, our certificate of incorporation provides that if Delaware law is amended to authorize the further elimination or limitation of the liability of directors, then the liability of a director of our company will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our certificate of incorporation also provides that any repeal or modification of such article by our stockholders or amendment to Delaware law will not adversely affect any right or protection existing at the time of such repeal or modification with respect to any acts or omissions occurring before such repeal or modification of a director serving at the time of such repeal or modification.

In addition, as permitted by Delaware law, our amended and restated bylaws, or bylaws, provide that we will indemnify each of our directors and officers and, in the discretion of our board of directors, certain employees, to the fullest extent permitted by Delaware law as the same may be amended (except that in the case of amendment, only to the extent that the amendment permits us to provide broader indemnification rights than the Delaware General Corporation Law permitted us to provide prior to such the amendment) against any and all expenses, judgments, penalties, fines and amounts reasonably paid in settlement that are incurred by the director, officer or such employee or on the director's, officer's or employee's behalf in connection with any threatened, pending or completed proceeding or any claim, issue or matter therein, to which he or she is or is threatened to be made a party because he or she is or was serving as a director, officer or employee of our company, or at our request as a director, partner, trustee, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of our company and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. The bylaws also provide for the advancement of expenses to each of our directors and, in the discretion of the board of directors, to certain officers and employees. In addition, the bylaws provide that the right of each of our directors and officers to indemnification and advancement of expenses is a contract right and will not be exclusive of any other right now possessed or hereafter acquired under any statute, provision of the certificate of incorporation or bylaws, agreement, vote of stockholders or otherwise. Furthermore, our bylaws authorize us to provide insurance for our directors, officers and employees, against any liability, whether or not we would have the power to indemnify such person against such liability under Delaware law or the provisions of our bylaws.

We have entered into indemnification agreements with each of our directors and our executive officers. These agreements provide that we will indemnify each of our directors and such officers to the fullest extent permitted by law and the certificate of incorporation and bylaws.

We also maintain a general liability insurance policy, which covers certain liabilities of directors and officers of our company arising out of claims based on acts or omissions in their capacities as directors or officers.

Certain of our non-employee directors may, through their relationships with their employers, be insured and/or indemnified against certain liabilities incurred in their capacity as members of our board of directors.

We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and executive officers. Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, may be permitted to directors, officers or persons controlling our company pursuant, we understand that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Compensation Committee Interlocks and Insider Participation

None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any entity that has one or more executive officers who serve as members of our board of directors or our compensation committee. None of the members of our compensation committee is an officer or employee of our company, and none of the members of our compensation committee has ever been an officer or employee of our company.

Compensation Committee Report

The compensation committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with our management. Based on this review and discussion, the compensation committee recommended to our board of directors that the Compensation Discussion and Analysis be included in this proxy statement.

This report of the compensation committee is not “soliciting material,” shall not be deemed “filed” with the SEC and shall not be incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing, except to the extent that we specifically incorporate this information by reference, and shall not otherwise be deemed filed under such acts.

By the compensation committee of the board of directors of Blueprint Medicines Corporation.

Charles A. Rowland, Jr. (chair)
Mark Goldberg, M.D.
Lynn Seely, M.D.

CEO PAY RATIO DISCLOSURE

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, and Item 402(u) of Regulation S-K, we are providing the following information about the relationship of the total annual compensation of our employees and the total annual compensation of Jeffrey W. Albers, our chief executive officer. The pay ratio included in this information is a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K.

Pay Ratio Disclosure

For 2017, our last completed fiscal year:

- the total annual compensation of our median employee was \$250,030, as determined in accordance with Item 402 of Regulation S-K; and
- the total annual compensation of our chief executive officer, as determined in accordance with Item 402 of Regulation S-K and reported in the “Summary Compensation Table” included elsewhere in this proxy statement was \$4,938,426.

Based on this information, for 2017, the ratio of the total annual compensation of Mr. Albers, our chief executive officer, to the total annual compensation of our median employee was approximately 19.8:1.

Methodology

To identify the median employee, as well as to determine the total annual compensation of our median employee and our chief executive officer, we took the following steps:

- We determined that, as of December 31, 2017, our employee population consisted of 138 individuals, with all of these individuals located in the United States. This population consisted of all full-time, part-time and temporary employees as of such date, excluding our chief executive officer.
- To identify the “median employee” from our employee population, for each employee we compared the amount of salary paid as of December 31, 2017, the bonus earned for 2017 and the grant date fair value of stock options awarded in 2017 as reflected in our human resources and payroll systems. Since all of our employees, including our chief executive officer, are located in the United States, we did not make any cost-of-living adjustments in identifying the median employee.
- Once we identified our median employee, we combined all of the elements of such employee’s compensation for 2017 in accordance with the requirements of Item 402 of Regulation S-K. Since we do not maintain a defined benefit or other actuarial plan for our employees, and we do not otherwise provide a plan for payments or other benefits at, following or in connection with retirement, our median employee’s total annual compensation did not include amounts attributable to these types of arrangements. As noted elsewhere in this proxy statement, we maintain a 401(k) plan that is intended to qualify under Section 401(k) of the Internal Revenue Code, and in general, all of our employees, including our chief executive officer, are eligible to participate in the 401(k) plan. We currently match 50% of an employee’s 401(k) contributions up to a maximum of 3% of the participant’s compensation, and any matching contributions are 100% vested immediately. Matching 401(k) contributions were included in the median employee’s total annual compensation.
- With respect to the total annual compensation of our chief executive officer, we used the amount reported in the “Total” column of the “Summary Compensation Table” included elsewhere in this proxy statement.

DIRECTOR COMPENSATION

Our board of directors has adopted a non-employee director compensation policy, which is designed to provide a total compensation package that enables us to attract and retain, on a long-term basis, high caliber non-employee directors. Under the non-employee director compensation policy, our non-employee directors are compensated as follows:

- Prior to July 1, 2017, each non-employee director was entitled to receive an annual cash fee of \$35,000 (\$65,000 for the chairman of the board of directors). Effective July 1, 2017, upon the recommendation of the compensation committee, our board of directors amended the non-employee director compensation policy to provide that each non-employee director will receive an annual cash fee of \$40,000 (\$70,000 for the chairman of the board of directors).
- Each non-employee director who is a member of the audit committee will receive an additional annual cash fee of \$7,500 (\$15,000 for the audit committee chairman).
- Each non-employee director who is a member of the compensation committee will receive an additional annual cash fee of \$5,000 (\$10,000 for the compensation committee chairman).
- Each non-employee director who is a member of the nominating and corporate governance committee will receive an additional annual cash fee of \$3,500 (\$7,500 for the nominating and corporate governance committee chairman).
- Each non-employee director who is a member of the research and development committee will receive an additional annual cash fee of \$5,000 (\$10,000 for the research and development committee chairman).
- Each new non-employee director will receive an initial grant of an option under our 2015 Stock Option and Incentive Plan, or the 2015 Plan, to purchase 21,818 shares of common stock upon his or her initial election to our board of directors.
- Each non-employee director will receive an annual grant of an option under our 2015 Plan to purchase 10,909 shares of common stock on the date of the first meeting of our board of directors held after each annual meeting of our stockholders.

The stock options granted to our non-employee directors will have an exercise price equal to the closing price of our common stock as reported on the Nasdaq Global Select Market on the date of grant and will expire ten years after the date of grant. The initial stock options granted to new non-employee directors will vest in equal monthly installments over a three-year period following the grant date, subject to such director's continued service on the board of directors. The annual stock options granted to our non-employee directors will vest in full upon the earlier of the first anniversary of the date of grant or the date of the following annual meeting of stockholders, subject to such director's continued service on the board of directors. Any initial stock options and annual stock options granted to each of our non-employee directors will automatically accelerate and become fully vested and exercisable upon the non-employee director's death or disability or upon a sale event (as defined in the 2015 Plan). In addition, each non-employee director has the right to elect to receive all or a portion of his or her annual cash compensation under the non-employee director compensation policy in the form of stock options to purchase our common stock. Any such election must be made before the start of our fiscal year. Any such stock options will vest quarterly over a one-year period, subject to the director's continued service on the board of directors.

All cash fees will be paid quarterly, in arrears, or upon the earlier resignation or removal of the non-employee director. The amount of each payment will be prorated for any portion of a quarter that a non-employee director is not serving on our board of directors, based on the number of calendar days served by such non-employee director.

Each non-employee director is also entitled to reimbursement for reasonable travel and other expenses incurred in connection with attending meetings of the board of directors and any committee on which he or she serves.

The following table sets forth a summary of the compensation for our non-employee directors during 2017.

<u>Name (1)</u>	<u>Fees Earned or Paid in Cash \$(2)</u>	<u>Option Awards \$(3)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
Alexis Borisy	42,500	319,842(4)	—	362,342
George D. Demetri, M.D.	50,000	319,842(5)	—	369,842
Mark Goldberg, M.D.	55,000	319,842(6)	—	374,842
Nick Lydon, Ph.D.	51,000	319,842(4)	20,000(7)	390,842
Daniel S. Lynch	67,500	319,842(4)	—	387,342
Charles A. Rowland, Jr.	62,500	319,842(6)	—	382,342
Lonnell Coats.	48,500	319,842(6)	—	368,342
Lynn Seely, M.D.	47,500	319,842(6)	—	367,342

- (1) Mr. Albers, our president and chief executive officer, does not receive any compensation for his service as a director.
- (2) Amounts represent cash compensation for services rendered by each member of our board of directors for their services on our board of directors or a committee thereof.
- (3) These amounts represent the aggregate grant date fair value of awards granted to our directors in 2017, computed in accordance with FASB ASC Topic 718. See Note 11 to the audited consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2017 regarding assumptions underlying the valuation of equity awards.
- (4) As of December 31, 2017, Messrs. Borisy and Lynch and Dr. Lydon held options to purchase 21,818 shares of our common stock.
- (5) As of December 31, 2017, Dr. Demetri held options to purchase 57,271 shares of our common stock.
- (6) As of December 31, 2017, Drs. Goldberg and Seely and Messrs. Rowland and Coats each held options to purchase 43,636 shares of our common stock.
- (7) Amount represents cash compensation for services rendered by Mr. Lydon as a member of our scientific advisory board.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table provides information about the securities authorized for issuance under our equity compensation plans as of December 31, 2017. As of December 31, 2017, we had three equity compensation plans, each of which was approved by our stockholders: the 2011 Stock Option and Grant Plan, as amended, or 2011 Plan, the 2015 Plan and the 2015 Employee Stock Purchase Plan, or 2015 ESPP.

Equity Compensation Plan Information

<u>Plan Category</u>	<u>Number of securities to be issued upon exercise of outstanding options, warrants and rights</u>	<u>Number of securities remaining available for future issuance under Weighted average exercise price of outstanding options, warrants and rights</u>	<u>equity compensation plans (excluding securities reflected in column (a)) (1)</u>
	(a)	(b)	(c)
Equity compensation plans approved by security holders	3,304,166	\$ 22.45	2,575,561
Equity compensation plans not approved by security holders	—	—	—
Total	<u>3,304,166</u>	<u>\$ 22.45</u>	<u>2,575,561 (2)</u>

- (1) As of December 31, 2017, (i) 1,769,028 shares remained available for future issuance under our 2015 Plan, and (ii) 806,533 shares remained available for future issuance under our 2015 ESPP. No shares remained available for future issuance under the 2011 Plan as of December 31, 2017.
- (2) Our 2015 Plan has an evergreen provision that allows for an annual increase in the number of shares available for issuance under the 2015 Plan to be added on the first day of each fiscal year in an amount equal to 4% of the number of shares of our common stock outstanding on the immediately preceding December 31 or such lesser amount determined by our board of directors or the compensation committee. Effective January 1, 2018, 1,743,101 additional shares were reserved for issuance under the 2015 Plan pursuant to this provision. Our 2015 ESPP has an evergreen provision that allows for an annual increase in the number of shares available for issuance under the 2015 ESPP to be added on the first day of each fiscal year in an amount equal to 1% of the total number of shares of our common stock outstanding on the immediately preceding December 31 or such lesser amount determined by our board of directors or the compensation committee. On January 1, 2018, 435,775 additional shares were reserved for issuance under the 2015 ESPP pursuant to this provision.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

Our audit committee has reviewed our audited consolidated financial statements for the fiscal year ended December 31, 2017 and discussed them with our management and our independent registered public accounting firm, Ernst & Young LLP.

Our audit committee has also received from, and discussed with, Ernst & Young LLP various communications that Ernst & Young LLP is required to provide to our audit committee, including the matters required to be discussed by the statement on Auditing Standards No. 16, "Communication with Audit Committees," as adopted by the Public Company Accounting Oversight Board.

In addition, Ernst & Young LLP provided our audit committee with the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm's communications with the audit committee concerning independence and has discussed with the Company's independent registered public accounting firm their independence.

Based on the review and discussions referred to above, our audit committee recommended to our board of directors that the audited consolidated financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2017.

This report of the audit committee is not "soliciting material," shall not be deemed "filed" with the SEC and shall not be incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing, except to the extent that we specifically incorporate this information by reference, and shall not otherwise be deemed filed under such acts.

By the audit committee of the board of directors of Blueprint Medicines Corporation.

Charles A. Rowland, Jr., Chair
Lonnell Coats
Mark Goldberg

PROPOSAL 2—ADVISORY VOTE ON EXECUTIVE COMPENSATION

We are providing our stockholders the opportunity to vote to approve, on an advisory, non-binding basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the SEC’s rules. This proposal, which is commonly referred to as “say-on-pay,” is required by the Dodd-Frank Act, which added Section 14A to the Securities Exchange Act of 1934, as amended, or the Exchange Act. Section 14A of the Exchange Act also requires that stockholders have the opportunity to cast an advisory vote with respect to whether future advisory votes on the compensation paid to our named executive officers will be held every one, two or three years, which is the subject of Proposal 3 below. Our executive compensation program is designed to reward value creation for stockholders and to attract, motivate, and retain our executive officers, who are critical to our success. Under this program, our named executive officers are rewarded for the achievement of our short- and long-term strategic and financial goals, which we believe serves to enhance short- and long-term value creation for our stockholders. Our compensation program contains elements of cash and equity-based compensation and is designed to align the interests of our executives with those of our stockholders and paying for performance.

The section of this proxy statement titled “Executive Compensation” beginning on page 19, including “Compensation Discussion and Analysis,” describes in detail our executive compensation program and the decisions made by our compensation committee. As we describe in greater detail in the “Compensation Discussion and Analysis” section, our executive compensation program rewards value creation for stockholders and progress towards achieving our mission and that promotes company performance. At the same time, we believe our program does not encourage excessive risk-taking by management. While we do not have a formal or informal policy for allocating between long-term and short-term compensation, between cash and non-cash compensation or among different forms of non-cash compensation, we generally strive to provide our named executive officers with a mix of short-term and long-term performance-based incentives to encourage consistently strong performance, and our board of directors believes that this link between compensation and the achievement of our near- and long-term business goals has helped drive our performance over time.

Our board of directors is asking stockholders to approve a non-binding advisory vote on the following resolution:

RESOLVED, that the compensation paid to the Company’s named executive officers, as disclosed in this proxy statement under the caption “Compensation Discussion and Analysis,” is hereby approved.

As an advisory vote, this proposal is not binding. Neither the outcome of this advisory vote nor of the advisory vote included in Proposal 3 below overrules any decision by the company or the board of directors (or any committee thereof), creates or implies any change to the fiduciary duties of the company or the board of directors (or any committee thereof), or creates or implies any additional fiduciary duties for the company or the board of directors (or any committee thereof). However, our compensation committee and board of directors value the opinions expressed by our stockholders in their vote on this proposal and intend to consider carefully the outcome of the vote when making future compensation decisions for named executive officers.

Recommendation of the Board of Directors

OUR BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE TO APPROVE THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS BY VOTING “FOR” THIS PROPOSAL.

PROPOSAL 3—ADVISORY VOTE ON THE FREQUENCY OF FUTURE EXECUTIVE COMPENSATION ADVISORY VOTES

In Proposal 2 above, we are providing our stockholders the opportunity to vote to approve, on an advisory, non-binding basis, the compensation of our named executive officers. In this Proposal 3, we are asking our stockholders to cast a non-binding advisory vote regarding the frequency of future executive compensation advisory votes. Stockholders may vote for a frequency of every one, two or three years, or stockholders may abstain.

Our board of directors intends to consider carefully the outcome of this vote in making a determination about the frequency of future executive compensation advisory votes. However, because this vote is advisory and non-binding, the board of directors may decide that it is in the best interests of our stockholders and the company to hold the advisory vote to approve executive compensation more or less frequently, but no less frequently than once every three years, as required by the Dodd-Frank Act. In the future, we will propose an advisory vote on the frequency of the executive compensation advisory vote at least once every six calendar years as required by the Dodd-Frank Act.

Stockholders will be asked at the 2018 annual meeting to approve the following resolution pursuant to this Proposal 3:

RESOLVED, that subject to fiduciary duties under applicable law, the stockholders of the Company vote in favor of holding future non-binding advisory votes on executive compensation ever year.

At the 2018 annual meeting, stockholders may cast a vote on the frequency of a say-on-pay vote by choosing the option of one year, two years or three years or stockholders may abstain from voting directly. After careful consideration, the board of directors believes that an executive compensation advisory vote should be held every year, and therefore our board of directors recommends that you vote for a frequency of every one year for future executive compensation advisory votes.

The board of directors believes that an annual executive compensation advisory vote will facilitate more direct stockholder input about executive compensation. Gathering stockholder feedback as close in time to the relevant compensation discussion as possible will be most useful to our board of directors. An annual executive compensation advisory vote is consistent with our policy of reviewing our compensation program annually, as well as seeking frequent input from our stockholders on corporate governance and executive compensation matters. We believe an annual vote would be the best governance practice for our company at this time.

Recommendation of the Board of Directors

OUR BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE IN FAVOR OF AN ANNUAL ADVISORY VOTE ON EXECUTIVE COMPENSATION.

PROPOSAL 4: RATIFICATION OF THE APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our audit committee has appointed the firm of Ernst & Young LLP, an independent registered public accounting firm, as independent auditors for the fiscal year ended December 31, 2018. Although stockholder approval of our audit committee’s appointment of Ernst & Young LLP is not required by law, our board of directors believes that it is advisable to give stockholders an opportunity to ratify this appointment. If this proposal is not approved at the annual meeting, our audit committee will reconsider its appointment of Ernst & Young LLP.

Ernst & Young LLP has no direct or indirect material financial interest in our company or our subsidiaries. Representatives of Ernst & Young LLP are expected to be present at the annual meeting and will have the opportunity to make a statement, if they desire to do so, and will be available to respond to appropriate questions from our stockholders.

Audit Fees and Services

Ernst & Young LLP was our independent registered public accounting firm for the years ended December 31, 2017 and December 31, 2016. The following table summarizes the fees of Ernst & Young LLP billed to us for each of the last two fiscal years. All such accountant services and fees were pre-approved by our audit committee in accordance with the “Pre-Approval Policies and Procedures” described below.

<u>Fee Category</u>	<u>Year Ended December 31,</u>	
	<u>2017</u>	<u>2016</u>
Audit Fees (1)	\$ 853,118	\$ 514,533
Audit-Related Fees (2)	—	—
Tax Fees (3)	47,000	24,000
All Other Fees (4)	1,995	1,565
Total Fees	<u>\$ 902,113</u>	<u>\$ 540,098</u>

- (1) “Audit Fees” consist of fees for the audit of our annual financial statements, the review of the interim financial statements included in our quarterly reports on Form 10-Q, our follow-on public offerings, which closed in April 2017 and December 2017, and other professional services provided in connection with regulatory filings or engagements.
- (2) “Audit-Related Fees” consist of fees billed by Ernst & Young LLP for assurance and related services that are reasonably related to the performance of the audit or review of our consolidated financial statements. There were no such fees incurred in 2017 or 2016.
- (3) “Tax Fees” consist of fees for professional services, including tax consulting and compliance performed by Ernst & Young LLP.
- (4) “All Other Fees” consist of database subscription fees paid to Ernst & Young LLP.

Pre-Approval Policies and Procedures

Our audit committee has adopted procedures requiring the pre-approval of all non-audit services performed by our independent registered public accounting firm in order to assure that these services do not impair the auditor’s independence. These procedures generally approve the performance of specific services subject to a cost limit for all such services. This general approval is to be reviewed, and if necessary modified, at least annually. Management must obtain the specific prior approval of the audit committee for each engagement of the independent registered public accounting firm to perform other audit-related or other non-audit services. The audit committee does not delegate its responsibility to approve services performed by the independent registered public accounting firm to any member of management.

The standard applied by the audit committee in determining whether to grant approval of any type of non-audit service, or of any specific engagement to perform a non-audit service, is whether the services to be performed, the compensation to be paid therefore and other related factors are consistent with the independent registered public accounting firm’s independence under guidelines of the SEC and applicable professional standards. Relevant considerations include whether the work product is likely to be subject to, or implicated in, audit procedures during the audit of our financial statements, whether the independent registered public accounting firm would be functioning in the role of management or in an advocacy role, whether the independent registered public accounting firm’s performance of the service would enhance our ability to manage or control risk or improve audit quality, whether such performance would increase efficiency because of the independent registered public accounting firm’s familiarity with our business, personnel, culture, systems, risk profile and other factors, and whether the amount of fees involved, or the non-audit services portion of the total fees payable to the independent registered public accounting firm in the period would tend to

reduce the independent registered public accounting firm's ability to exercise independent judgment in performing the audit.

Recommendation of the Board of Directors

OUR BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE "FOR" THE RATIFICATION OF THE APPOINTMENT OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDED DECEMBER 31, 2018.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

Policies and Procedures for Related Person Transactions

Our board of directors has adopted a written related person transaction policy to set forth policies and procedures for the review and approval or ratification of related person transactions. This policy covers any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant and any director or executive officer, director nominee, holder of 5% or more of any class of our voting securities or any member of the immediate family of or entities affiliated with any of the foregoing had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. Any such transaction must be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee is to consider the relevant facts and circumstances available and deemed relevant to the audit committee, including, but not limited to, the extent of the related party's interest in the transaction, and whether the transaction is on terms no less favorable to us than terms we could have generally obtained from an unaffiliated third party under the same or similar circumstances.

Related Person Transactions

Other than the compensation arrangements for our named executive officers and directors, which are described elsewhere in the "Executive Compensation" and "Director Compensation" sections of this proxy statement, set forth below is a description of transactions since January 1, 2017 to which we were or will be a party, and in which:

- the amounts involved exceeded or will exceed \$120,000; and
- any of our directors, executive officers, nominees for director or holders of more than 5% of our capital stock, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest.

We believe the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, from unrelated third parties.

Participation in Follow-On Public Offerings

April 2017

In March 2017, we entered into an underwriting agreement with Goldman, Sachs & Co. and Morgan Stanley & Co. LLC, as representatives of the several underwriters, relating to a follow-on underwritten public offering of shares of our common stock. Pursuant to the underwriting agreement, we sold an aggregate of 5,750,000 shares of our common stock to the underwriters, including 750,000 shares of common stock 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 \$40.00 per share. The offering closed on April 4, 2017. Certain holders of more than 5% of our capital stock (including shares of common stock acquired in the offering) purchased shares of our common stock from the underwriters in the offering at the offering price of the shares to the public.

The following table sets forth the number of shares of our common stock purchased and the aggregate cash purchase price paid by each of these stockholders.

<u>Purchaser</u>	<u>Shares of Common Stock</u>	<u>Purchase Price</u>
Entities affiliated with Wellington Management Group LLP . . .	500,000	\$ 20,000,000
Entities affiliated with FMR LLC	350,000	\$ 14,000,000
T. Rowe Price Associates, Inc.	500,000	\$ 20,000,000
Entities affiliated with the Vanguard Group	100,000	\$ 4,000,000
Entities affiliated with Biotechnology Value Fund, L.P.	25,000	\$ 1,000,000

December 2017

In December 2017, we entered into an underwriting agreement with Goldman, Sachs & Co. and Morgan Stanley & Co. LLC, as representatives of the several underwriters, relating to a follow-on underwritten public offering of

shares of our common stock. Pursuant to the underwriting agreement, we sold an aggregate of 4,259,259 shares of our common stock to the underwriters, including 555,555 shares of common stock 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 \$81.00 per share. The offering closed on December 15, 2017. Certain holders of more than 5% of our capital stock (including shares of common stock acquired in the offering) purchased shares of our common stock from the underwriters in the offering at the offering price of the shares to the public.

The following table sets forth the number of shares of our common stock purchased and the aggregate cash purchase price paid by each of these stockholders.

<u>Purchaser</u>	<u>Shares of Common Stock</u>	<u>Purchase Price</u>
Entities affiliated with FMR LLC	684,600	\$ 55,452,600
Entities affiliated with the Vanguard Group	400,000	\$ 32,400,000
T. Rowe Price Associates, Inc.	365,113	\$ 29,574,153
Entities affiliated with BlackRock, Inc.	125,000	\$ 10,125,000

STOCK OWNERSHIP AND REPORTING

Security Ownership of Certain Beneficial Owners and Management

Unless otherwise provided below, the following table sets forth information regarding beneficial ownership of our common stock as of March 31, 2018 by:

- each person, or group of affiliated persons, known to us to be the beneficial owner of 5% or more of the outstanding shares of our common stock;
- each of our current directors;
- our principal executive officer and our two other executive officers who served during the year ended December 31, 2017 named in the Summary Compensation table above, whom we collectively refer to as our named executive officers; and
- all of our executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to stock options that are currently exercisable or will become exercisable within 60 days after March 31, 2018 are considered outstanding and beneficially owned by the person holding the stock options for the purpose of calculating the percentage ownership of that person, but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, to our knowledge, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to applicable community property laws. The inclusion herein of any shares as beneficially owned does not constitute an admission of beneficial ownership.

The column entitled “Percentage of Shares Beneficially Owned” is based on a total of 43,821,247 shares of our common stock outstanding as of March 31, 2018. Except as otherwise set forth below, the address of the beneficial owner is c/o Blueprint Medicines Corporation, 45 Sidney Street, Cambridge, Massachusetts 02139. Beneficial ownership representing less than one percent of our outstanding common stock is denoted with an “*.”

Name and address of beneficial owner	Number of shares beneficially owned	Percentage of shares beneficially owned
5% stockholders		
Entities affiliated with FMR LLC (1)	6,432,408	14.68 %
Entities affiliated with the Vanguard Group (2)	3,316,928	7.57 %
T. Rowe Price Associates, Inc. (3)	3,309,402	7.55 %
Entities affiliated with BlackRock, Inc. (4)	3,081,861	7.03 %
Entities affiliated with Wellington Management Group LLP (5)	2,468,375	5.63 %
Entities affiliated with Third Rock Ventures II, L.P. (6)	2,453,753	5.60 %
Named executive officers and directors		
Jeffrey W. Albers (7)	593,161	1.34 %
Anthony L. Boral, M.D., Ph.D. (8)	103,937	*
Alexis Borisy (9)	64,158	*
Lonnell Coats (10)	27,272	*
George D. Demetri, M.D. (11)	52,801	*
Mark Goldberg, M.D. (12)	32,120	*
Kathryn Haviland (13)	18,280	*
Michael Landsittel (14)	39,143	*
Nicholas Lydon, Ph.D. (15)	188,636	*
Daniel S. Lynch (16)	185,251	*
Christopher K. Murray, Ph.D.	—	*
Charles A. Rowland, Jr. (17)	32,727	*
Lynn Seely, M.D. (18)	26,060	*
All executive officers and directors as a group (15 persons) (19)	1,413,098	3.15 %

-
- (1) Based solely on a Schedule 13G/A filed with the SEC on February 13, 2018 by FMR LLC. Abigail P. Johnson is a Director, the Chairman and the Chief Executive Officer of FMR LLC. Members of the Johnson family, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Abigail P. Johnson has the sole power to vote or direct the voting of the shares owned directly by the various investment companies registered under the Investment Company Act ("Fidelity Funds") advised by Fidelity Management & Research Company ("FMR Co"), a wholly owned subsidiary of FMR LLC, which power resides with the Fidelity Funds' Boards of Trustees. Fidelity Management & Research Company carries out the voting of the shares under written guidelines established by the Fidelity Funds' Boards of Trustees. Fidelity Management & Research Company carries out the voting of the shares under written guidelines established by the Fidelity Funds' Boards of Trustees. The address of FMR LLC is 245 Summer Street, Boston, MA 02210.
 - (2) Based solely on a Schedule 13G filed with the SEC on February 8, 2018 by Entities affiliated with the Vanguard Group ("Vanguard"). The address for Vanguard is 100 Vanguard Blvd., Malvern, PA 19355.
 - (3) Based solely on a Schedule 13G filed with the SEC on February 14, 2018 by T. Rowe Price Associates, Inc. ("T Rowe Price"). The address for T Rowe Price is 100 E. Pratt Street, Baltimore, MD 21202.
 - (4) Based solely on a Schedule 13G/A filed with the SEC on January 29, 2018 by BlackRock Inc. ("BlackRock"). The address for BlackRock is 55 East 52nd Street, New York, NY 10055.
 - (5) Based solely on a Schedule 13G filed with the SEC on February 8, 2018 by Wellington Management Group LLP. Wellington Investment Advisors Holdings LLP is owned by Wellington Group Holdings LLP. Wellington Group Holdings LLP is owned by Wellington Management Group LLP. The shares are owned of record by clients of the following investment advisers (the "Wellington Investment Advisers"): Wellington Management Company LLP, Wellington Management Canada LLC, Wellington Management Singapore Pte Ltd, Wellington Management Hong Kong Ltd, Wellington Management International Ltd, Wellington Management Japan Pte Ltd and Wellington Management Australia Pty Ltd. Wellington Investment Advisors Holdings LLP controls directly, or indirectly through Wellington Management Global Holdings, Ltd., the Wellington Investment Advisers. The address of Wellington Management Group LLP, Wellington Group Holdings LLP, Wellington Investment Advisors Holdings LLP and Wellington Management Company LLP is c/o Wellington Management Company LLP, 280 Congress Street, Boston, MA 02210.
 - (6) Based solely on a Schedule 13G/A filed with the SEC on February 13, 2018 by Third Rock Ventures II, L.P. ("TRV II"). TRV II directly owns 2,453,753 shares of common stock. Each of Third Rock Ventures GP II, L.P. ("TRV GP II"), the sole general partner of TRV II, and TRV GP II, LLC ("TRV GP II LLC"), the sole general partner of TRV GP II, and Mark Levin, Kevin Starr and Robert Tepper, managing members of TRV GP II LLC, may be deemed to share voting and investment power over the shares held of record by TRV II. Additionally, as of December 31, 2017, Messrs. Levin, Starr and Tepper each directly owns 143,290 shares of common stock, 33,398 shares of common stock and 89,378 shares of common stock, respectively. The address for TRV II, TRV GP II, TRV GP II LLC and Messrs. Levin, Starr and Tepper is c/o Third Rock Ventures, LLC, 29 Newbury Street, 3rd Floor, Boston, MA 02116.
 - (7) Consists of 593,161 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (8) Consists of 103,937 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (9) Consists of (i) 53,249 shares of common stock and (ii) 10,909 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (10) Consists of 27,272 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (11) Consists of (i) 6,439 shares of common stock and (ii) 46,362 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (12) Consists of 32,120 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (13) Consists of (i) 5,874 shares of common stock and (ii) 12,406 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (14) Consists of 39,143 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (15) Consists of (i) 177,727 shares of common stock and (ii) 10,909 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (16) Consists of (i) 174,342 shares of common stock and (ii) 10,909 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
 - (17) Consists of 32,727 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.

- (18) Consists of 26,060 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.
- (19) Consists of (i) 417,631 shares of common stock and (ii) 995,467 options to purchase shares of common stock that are exercisable as of March 31, 2018 or will become exercisable within 60 days after such date.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and officers and holders of more than 10% of our common stock to file with the SEC initial reports of ownership of our common stock and other equity securities on a Form 3 and reports of changes in such ownership on a Form 4 or Form 5. Directors and officers and holders of 10% of our common stock are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. To our knowledge, based solely on a review of our records and representations made by our directors and officers regarding their filing obligations, all Section 16(a) filing requirements were satisfied with respect to 2017.

OTHER MATTERS

As of the date of this proxy statement, we know of no matter not specifically referred to above as to which any action is expected to be taken at the annual meeting. The persons named as proxies will vote the proxies, insofar as they are not otherwise instructed, regarding such other matters and the transaction of such other business as may be properly brought before the meeting, as seems to them to be in the best interest of our company and our stockholders.

Stockholder Proposals for our 2018 Annual Meeting

Stockholder Proposals Included in Proxy Statement

In order to be considered for inclusion in our proxy statement and proxy card relating to our 2018 annual meeting of stockholders, stockholder proposals must be received by us no later than December 28, 2018, which is 120 days prior to the first anniversary of the mailing date of this proxy, unless the date of the 2018 annual meeting of stockholders is changed by more than 30 days from the anniversary of our 2018 annual meeting, in which case, the deadline for such proposals will be a reasonable time before we begin to print and send our proxy materials. Upon receipt of any such proposal, we will determine whether or not to include such proposal in the proxy statement and proxy card in accordance with regulations governing the solicitation of proxies.

Stockholder Proposals Not Included in Proxy Statement

In addition, our amended and restated bylaws, or bylaws, establish an advance notice procedure for nominations for election to our board of directors and other matters that stockholders wish to present for action at an annual meeting other than those to be included in our proxy statement. In general, we must receive other proposals of stockholders (including director nominations) intended to be presented at the 2019 annual meeting of stockholders but not included in the proxy statement by March 22, 2019, but not before February 20, 2019, which is not less than 90 days nor more than 120 days prior to the anniversary date of the immediately preceding annual meeting. However, if the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date, notice must be received not earlier than the close of business 120 calendar days prior to such annual meeting and no later than the close of business on the later of 90 days prior to such annual meeting and 10 days following the day on which notice of the date of such annual meeting was mailed or public announcement of the date of such annual meeting was first made. If the stockholder fails to give notice by these dates, then the persons named as proxies in the proxies solicited by the board of directors for the 2019 annual meeting of stockholders may exercise discretionary voting power regarding any such proposal. Stockholders are advised to review our bylaws which also specify requirements as to the form and content of a stockholder's notice.

Any proposals, notices or information about proposed director candidates should be sent to Blueprint Medicines Corporation, Attention: Nominating and Corporate Governance Committee, 45 Sidney Street, Cambridge, Massachusetts 02139.

Householding of Annual Meeting Materials

Some banks, brokerage firms and other nominee record holders may be "householding" our proxy materials. This means a single notice and, if applicable, the proxy materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received. We will promptly deliver a separate copy of the notice and, if applicable, the proxy materials and our 2017 annual report to stockholders, which consists of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, to you if you contact us at Blueprint Medicines Corporation, 45 Sidney Street, Cambridge, Massachusetts 02139, Attn: Investor Relations, telephone: (617) 714-6674, e-mail: ir@blueprintmedicines.com. If you would like to receive separate copies of our proxy materials and annual reports in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address, telephone number or e-mail.