
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

SCHEDULE 14A

**Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934
(Amendment No.)**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only** (as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to §240.14a-12

BLUEPRINT MEDICINES CORPORATION

(Name of Registrant as Specified in Its certificate of incorporation)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
 - Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies:

 - (2) Aggregate number of securities to which transaction applies:

 - (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

 - (4) Proposed maximum aggregate value of transaction

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 - Fee paid previously with preliminary materials:
 - Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
 - (1) Amount previously paid:

 - (2) Form, Schedule or Registration Statement No.:

 - (3) Filing Party:

 - (4) Date Filed:

-



BLUEPRINT MEDICINES CORPORATION
38 Sidney Street, Suite 200
Cambridge, Massachusetts 02139
(617) 374-7580

NOTICE OF 2017 ANNUAL MEETING OF STOCKHOLDERS

To Be Held On June 20, 2017

Dear Stockholders:

You are cordially invited to attend the 2017 annual meeting of stockholders of Blueprint Medicines Corporation to be held on Tuesday, June 20, 2017 at 3:00 p.m., Eastern Daylight Time, at our offices located at 38 Sidney Street, Suite 200, Cambridge, Massachusetts 02139. At the annual meeting, stockholders will consider and vote on the following matters:

1. The election of three Class II directors nominated by our board of directors, each to serve for a three-year term expiring at the 2020 annual meeting of stockholders or until his successor has been duly elected and qualified;
2. The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ended December 31, 2017; and
3. 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 24, 2017 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", with a long horizontal flourish extending to the right.

Jeffrey W. Albers
President and Chief Executive Officer

Boston, Massachusetts
April 28, 2017

Important Notice Regarding Internet Availability of Proxy Materials: This proxy statement and our 2016 annual report to stockholders, which consists of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, 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	5
Information Regarding Directors	6
Class II Director Nominees—For a Three-Year Term Expiring at the 2020 Annual Meeting of Stockholders	7
Class I Directors—Term Expiring at the 2019 Annual Meeting of Stockholders	7
Class III Directors—Term Expiring at the 2018 Annual Meeting of Stockholders	8
Recommendation of the Board of Directors	9
CORPORATE GOVERNANCE	10
General	10
Code of Business Conduct and Ethics and Corporate Governance Guidelines	10
Board Leadership Structure and Risk Oversight	10
Board Leadership Structure	10
Risk Oversight	10
Board Determination of Independence	11
Board of Director Meetings and Attendance	11
Communicating with the Board of Directors	11
Committees of the Board of Directors	12
Audit Committee	12
Compensation Committee	12
Nominating and Corporate Governance Committee	13
Research and Development Committee	13
Director Nomination Process	13
Criteria and Diversity	13
Stockholder Nominations	14
Compensation Committee Interlocks and Insider Participation	14
EXECUTIVE OFFICERS	15
Executive Compensation	17
Summary Compensation Table	17
Narrative Disclosure to Summary Compensation Table	17
Outstanding Equity Awards at December 31, 2016	19
Employment, Severance and Change in Control Arrangements	20
Other Agreements	21
Limitation of Liability and Indemnification	21
DIRECTOR COMPENSATION	22
SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS	24

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS	25
PROPOSAL 2] RATIFICATION OF THE APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	26
Audit Fees and Services	26
Pre-Approval Policies and Procedures	26
Recommendation of the Board of Directors	27
CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS	28
Policies and Procedures for Related Person Transactions	28
Related Person Transactions	28
Participation in Follow-On Public Offerings	28
STOCK OWNERSHIP AND REPORTING	30
Security Ownership of Certain Beneficial Owners and Management	30
Section 16(a) Beneficial Ownership Reporting Compliance	32
OTHER MATTERS	33
Stockholder Proposals for our 2018 Annual Meeting	33
Stockholder Proposals Included in Proxy Statement	33
Stockholder Proposals Not Included in Proxy Statement	33
Householding of Annual Meeting Materials	33



PROXY STATEMENT

**2017 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON JUNE 20, 2017**

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 Tuesday, June 20, 2017 at 3:00 p.m., Eastern Daylight Time, at our offices located at 38 Sidney Street, Suite 200, 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.

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 2016 annual report to stockholders available to stockholders for the first time on or about April 28, 2017.

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, 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, 38 Sidney Street, Suite 200, 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, 2016 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.

Implications of Being an “Emerging Growth Company”

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We will remain an emerging growth company until the earlier of (i) December 31, 2020; (ii) the last day of the fiscal year in which we have total annual gross revenues of \$1 billion or more; (iii) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include reduced disclosure obligations regarding executive compensation. In addition, as an emerging growth company, we are not required to conduct votes seeking approval, on an advisory basis, of the compensation of our named executive officers or the frequency with which such votes must be conducted. We have taken advantage of certain reduced reporting obligations in this proxy statement. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

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 2017 annual meeting of stockholders to be held at our offices located at 38 Sidney Street, Suite 200, Cambridge, Massachusetts 02139, on Tuesday, June 20, 2017 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 II directors nominated by our board of directors, each to serve for a three-year term expiring at the 2020 annual meeting of stockholders or until his successor has been duly elected and qualified (Proposal 1);
2. The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ended December 31, 2017 (Proposal 2); and
3. 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 24, 2017, the record date for our annual meeting. As of the record date, there were 39,016,421 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, 2017, 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, 2017, 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, 2017, 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 2) 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 2.

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 II directors (Proposal 1) is not considered to be a discretionary item. Accordingly, if you do not give your bank, brokerage firm or other nominee voting instructions on Proposal 1, 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 24, 2017, or approximately 19,508,212 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 II 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—Ratification of the Appointment of Independent Registered Public Accounting Firm

To approve Proposal 2, holders of a majority of the votes cast on the matter must vote FOR the proposal. **Proposal 2 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 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, voting to ABSTAIN will have no effect on the outcome of Proposal 2.

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, 2017 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, 2017.

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 II directors, each for a three year term; 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, 2017.

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 II directors 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, 38 Sidney Street, Suite 200, 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 II directors, Alexis Borisy, Charles A. Rowland, Jr. and Lonnel Coats, will expire at the 2017 annual meeting of stockholders. The nominees for Class II directors for election at the 2017 annual meeting of stockholders are Messrs. Borisy, Rowland and Coats. If any of Messrs. Borisy, Rowland and Coats are elected at the 2017 annual meeting of stockholders, such individual will be elected to serve for a three-year term that will expire at our 2020 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 Messrs. Borisy, Rowland and Coats or, in the event that any of Messrs. Borisy, Rowland and Coats 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 II directors, as of April 15, 2017. 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	45	President and Chief Executive Officer, Director
Mark Goldberg, M.D. (1)(2)(4)	62	Director
Nicholas Lydon, Ph.D. (3)(4)	60	Director
<i>Class II Director Nominees</i>		
Alexis Borisy (4)	45	Director
Charles A. Rowland, Jr. (1)(2)	58	Director
Lonnel Coats (1)(3)	52	Director
<i>Class III Directors</i>		
Daniel S. Lynch	59	Chairman of the Board, Director
George D. Demetri, M.D. (3)(4)	60	Director
Lynn Seely, M.D. (2)(4)	58	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 II Director Nominees—For a Three-Year 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. Since November 2013, Mr. Borisy has served as a member of the board of directors of Editas Medicine, Inc. Since 2011, Mr. Borisy has served as executive chairman of Warp Drive Bio, LLC, a life sciences company focusing on genomics where he served as chief executive officer from 2011 to July 2013. In addition, Mr. Borisy currently serves on the board of directors of the following privately held biopharmaceutical companies: Revolution Medicines, Inc., Magenta Therapeutics, Inc., Relay Therapeutics, Inc. and Tango Therapeutics, 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 Biovail Pharmaceuticals, Inc., Breakaway Technologies, Inc., Pharmacia Corporation, Novartis AG and Bristol-Myers Squibb Co., each a biopharmaceutical company. Mr. Rowland joined the board of directors of Idenix Pharmaceuticals, Inc., a biopharmaceutical company, in June 2013 and served as a member of its audit committee until Idenix was acquired by 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. Since January 2015, he has served as a member of the supervisory board and chairman of the audit committee of Nabriva Therapeutics, AG, a biotechnology company based in Vienna, Austria. 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.

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. 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 director of ImmunoGen, Inc. since November 2011, a director of GlycoMimetics, Inc. since July 2014, a director of Idera Pharmaceuticals, Inc. since March 2014 and a director of aTyr Pharma, Inc. since April 2015. Dr. Goldberg served as a director 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 Pharma, 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 III Directors—Term Expiring at the 2018 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. Mr. Lynch has served as 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: eGenesis, Inc., Proclara Biosciences, Inc., RaNA Therapeutics, Inc. and Surface Oncology, 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. has served as a member of our board of directors since December 2014. Since 1986, Dr. Demetri has served as a Professor of Medicine at Harvard Medical School and as an academic medical oncologist at

the Dana-Farber Cancer Institute, or Dana-Farber, and Harvard Medical School. Dr. Demetri's research and clinical interests have centered on mechanism-based drug development for solid tumors, with a particular emphasis on molecularly-defined subsets of sarcomas such as gastrointestinal stromal tumors. Dr. Demetri has contributed to the development of several new drugs for sarcomas and other malignancies, including imatinib, sunitinib, dasatinib, trabectedin, vemurafenib, everolimus, pazopanib and regorafenib. Dr. Demetri serves as chair of the medical advisory board for the Sarcoma Foundation of America as well as several scientific and editorial advisory boards. With an interest in internet-based patient support, Dr. Demetri also serves on the Medical Advisory Board of ASCO's CancerNet as well as CancerCommons.org. 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 scientific and editorial 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.

Recommendation of the Board of Directors

OUR BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE "FOR" THE ELECTION OF ALEXIS BORISY, CHARLES A. ROWLAND, JR. AND LONNEL COATS TO SERVE AS CLASS II 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, 38 Sidney Street, Suite 200, 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, Alexis Borisy 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.

Board of Director Meetings and Attendance

Our board of directors held eight meetings during fiscal 2016. During fiscal 2016, 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. All members of our board of directors who were then directors attended our 2016 annual meeting of stockholders.

Communicating with the Board of Directors

The board 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 should address such communications to Blueprint Medicines Corporation, Attention: Board of Directors, 38 Sidney Street, Suite 200, Cambridge, Massachusetts 02139.

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 five meetings during fiscal 2016.

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 12 meetings during fiscal 2016.

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 shareholders;
- identifying individuals qualified to become members of the board of directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- developing and recommending to the board of directors a set of corporate governance guidelines; and
- overseeing the evaluation of the board of directors and management.

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 fiscal 2016.

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 four meetings during fiscal 2016.

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 9 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, 38 Sidney Street, Suite 200, 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."

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.

EXECUTIVE OFFICERS

Certain information regarding our executive officers who are not also directors, as of April 15, 2017, is set forth below.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
Anthony L. Boral, M.D., Ph.D.	54	Chief Medical Officer
Marion Dorsch, Ph.D.	52	Chief Scientific Officer
Kathryn Haviland	41	Chief Business Officer
Michael Landsittel	45	Vice President, Finance
Tracey L. McCain, Esq.	49	Chief Legal Officer

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. 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. 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.

EXECUTIVE COMPENSATION

This section discusses the material elements of our executive compensation policies for our “named executive officers” and the most important factors relevant to an analysis of these policies. For 2016, our named executive officers are Jeffrey W. Albers, our president and chief executive officer, and our two other most highly compensated executive officers, Marion Dorsch, Ph.D., our chief scientific officer, and Tracey L. McCain, our chief legal officer. In addition, this section provides qualitative information regarding the manner and context in which compensation is awarded to and earned by our named executive officers and is intended to place in perspective the data presented in the following tables and the corresponding narrative.

Summary Compensation Table

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

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Option Awards (\$)(1)	Non-equity Incentive Plan Compensation (\$)(2)	All Other Compensation (\$)(3)	Total (\$)
Jeffrey W. Albers (4)	2016	476,827 (5)	—	1,407,644	273,125	9,000	2,166,596
President and Chief Executive Officer	2015	416,667	—	698,776	210,375	—	1,325,818
Marion Dorsch, Ph.D. (6)	2016	40,962	150,000 (7)	2,691,326	—	—	2,882,288
Chief Scientific Officer							
Tracey L. McCain (8)	2016	130,846	100,000 (9)	1,843,220	50,117	—	2,124,184
Chief Legal Officer							

(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, 2016 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 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. Dorsch joined our company as chief scientific officer in November 2016.

(7) Amount represents a cash signing bonus of \$150,000 paid to Dr. Dorsch in connection with the commencement of her employment in November 2016.

(8) Ms. McCain joined our company as chief legal officer in September 2016.

(9) Amount represents a cash signing bonus of \$100,000 paid to Ms. McCain in connection with the commencement of her employment in September 2016.

Narrative Disclosure to Summary Compensation Table

The following describes the material terms of the elements of our executive compensation program for our named executive officers during 2016.

Base Salary

Effective as of January 1, 2015, our board of directors increased Mr. Albers’ annual base salary to \$400,000, and effective as of the closing of our initial public offering in May 2015, our board of directors increased Mr. Albers’ annual base salary to \$425,000. Effective as of January 1, 2016, our board of directors increased Mr. Albers’ annual base salary to \$475,000, and effective as of January 1, 2017, the compensation committee of our board of directors increased Mr. Albers’ annual base salary to \$515,375. Dr. Dorsch’s annual base salary was set at \$355,000 when she joined our company as chief scientific officer in November 2016. Ms. McCain’s annual base salary was set at \$405,000 when she joined our company as chief legal officer in September 2016. Effective as of January 1, 2017, the compensation committee of our board of directors increased Ms. McCain’s annual base salary to \$408,861.

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, the compensation committee of our board of directors 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 board of directors reviews and evaluates the need for adjustment of the base salary of our chief executive officers, 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.

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 of our board of directors for each executive. 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. Under the executive bonus plan, the corporate performance goals selected by the compensation committee of our board of directors may include, but are not limited to, one or more of the following: cash flow, including, but not limited to, operating cash flow and free cash flow; sales or revenue; corporate revenue; earnings before interest, taxes, depreciation and amortization; net income, either before or after interest, taxes, depreciation and/or amortization; changes in the market price of our common stock; economic value-added; development, clinical or regulatory milestones; acquisitions or strategic transactions; operating income; return on capital, assets, equity, or investment; stockholder returns; return on sales; gross or net profit levels; productivity; expense efficiency; margins; operating efficiency; customer satisfaction; working capital; earnings per share of our common stock; bookings, new bookings or renewals; sales or market shares; number of customers; number of new customers or customer references; operating income and/or net annual recurring revenue, any of which may be measured in absolute terms or compared to any incremental increase, in terms of growth, as compared to another company or companies or to results of a peer group, against the market as a whole, compared to applicable market indices and/or measured on a pre-tax or post-tax basis.

Each executive officer who is selected to participate in the executive bonus plan has a target bonus opportunity set for each performance period. The bonus formulas adopted for each performance period by the compensation committee of our board of directors and communicated to each executive. The corporate performance goals will be measured at the end of each performance period after our financial reports have been published. If the corporate performance goals and individual performance goals are met, payments will be made as soon as practicable following the end of 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. Mr. Albers' target bonus opportunity is based solely on corporate performance goals, and the target bonus opportunity for each of Dr. Dorsch and Ms. McCain is based on individual performance goals and corporate performance goals. For 2015, Mr. Albers was eligible for a performance bonus of up to 45% of his base salary. In February 2016, our board of directors awarded a bonus to Mr. Albers in the amount of \$210,375 based on our performance as a company for 2015.

For 2016, Mr. Albers was eligible for a performance bonus of up to 50% of his base salary. In February 2017, the compensation committee of our board of directors awarded a bonus to Mr. Albers in the amount of \$273,125 based on our performance as a company for 2016. For 2016, Ms. McCain was eligible for a performance bonus of up to 35% of her base salary. In February 2017, the compensation committee of our board of directors awarded a bonus to Ms. McCain in the amount of \$50,117, which was pro-rated based on the commencement of her employment with us in September 2016, based on her individual performance and our performance as a company for 2016. In addition, Ms. McCain received a signing bonus of \$100,000 following the commencement of her employment with us in September 2016. For 2016, Dr. Dorsch was not eligible for a performance bonus based on the commencement of her employment with us in November 2016. Dr. Dorsch received a signing bonus of \$150,000 following the commencement of her employment with us in November 2016.

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 or restricted stock unit awards.

As part of its annual compensation review, in February 2015, our board of directors awarded Mr. Albers an option to purchase 109,090 shares of common stock, and in February 2016, our board of directors awarded Mr. Albers an option to purchase 140,000 shares of common stock. In November 2016, in connection with Dr. Dorsch’s commencement of employment with us, our board of directors awarded Dr. Dorsch an option to purchase 110,000 shares of common stock. In September 2016, in connection with Ms. McCain’s commencement of employment with us, our board of directors awarded Ms. McCain an option to purchase 100,000 shares of common stock. All of these awards are subject to time-based vesting. See “—Outstanding Equity Awards at December 31, 2016” below.

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. 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 2016, and to have the amount of such reduction contributed to 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. Matching contributions are 100% vested immediately. Matching contributions made to each of our named executive officers are included in the “Summary Compensation Table” above.

Outstanding Equity Awards at December 31, 2016

The following table sets forth information concerning outstanding equity awards for each of our named executive officers at December 31, 2016:

Name	Option Awards			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable(1)	Option Exercise Price (\$)	Option Expiration Date
Jeffrey W. Albers	53,475	—	1.87	7/30/2024
	42,845 (2)	120,235 (2)	1.87	7/30/2024
	106,950 (3)	106,950 (3)	1.87	7/30/2024
	49,999 (4)	59,091 (4)	8.80	2/10/2025
	29,166 (5)	110,834 (5)	15.01	2/3/2026
Marion Dorsch, Ph.D.	— (6)	110,000 (6)	37.11	11/21/2026
Tracey L. McCain	— (7)	100,000 (7)	28.36	10/3/2026

- (1) 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.
- (2) 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.
- (3) 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.

- (4) 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.
- (5) 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, 2020.
- (6) This option vests with respect to 25% of the shares underlying the option on November 21, 2017 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through November 21, 2020.
- (7) This option vests with respect to 25% of the shares underlying the option on September 6, 2017 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through September 6, 2020.

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. 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.

Marion Dorsch, Ph.D. If Dr. Dorsch’s employment is terminated by us without cause (as defined in her employment agreement) or by Dr. Dorsch for good reason (as defined in her employment agreement), and subject to Dr. Dorsch’s execution of a release of potential claims against us, Dr. Dorsch 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 Dr. Dorsch’s COBRA health continuation period, whichever ends earlier. However, in the event that Dr. Dorsch’s employment is terminated by us without cause, or Dr. Dorsch terminates her employment with us for good reason, in either case within 12 months following the occurrence of a sale event (as defined in her employment agreement), in lieu of the severance payments and benefits described in the preceding sentence and subject to Dr. Dorsch’s execution of a release of potential claims against us, Dr. Dorsch will be entitled to receive: (i) a lump sum in cash in an amount equal to the sum of 12 months of Dr. Dorsch’s base salary then in effect plus Dr. Dorsch’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 Dr. Dorsch’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 Dr. Dorsch.

Tracey L. McCain. If Ms. McCain’s employment is terminated by us without cause (as defined in her employment agreement) or by Ms. McCain for good reason (as defined in her employment agreement), and subject to Ms. McCain’s execution of a release of potential claims against us, Ms. McCain 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 Ms. McCain’s COBRA health continuation period, whichever ends earlier. However, in the event that Ms. McCain’s employment is terminated by us without cause, or Ms. McCain terminates her employment with us for good reason, in either case within 12 months following the occurrence of a sale event (as defined in her employment agreement), in lieu of the severance payments and benefits described in the preceding sentence and subject to Ms. McCain’s execution of a release of potential claims against us, Ms. McCain will be entitled to receive: (i) a lump sum in cash in an amount equal to the sum of 12 months of Ms. McCain’s base salary then in effect plus Ms. McCain’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 Ms. McCain’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 Ms. McCain.

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 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.

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:

- each non-employee director will receive an annual cash fee of \$35,000 (\$65,000 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; and
- 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 fair market value of our common stock 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 2016.

Name(1)	Fees Earned or Paid in Cash \$(2)	Option Awards \$(3)	All Other Compensation (\$)	Total (\$)
Alexis Borisy	41,001	135,036 (4)	—	176,037
George D. Demetri, M.D.	48,190	135,036 (5)	—	183,226
Mark Goldberg, M.D.	50,354	135,036 (6)	—	185,390
Nick Lydon, Ph.D.	67,499	135,036 (4)	—	202,535
Daniel S. Lynch	68,576	135,036 (4)	—	203,612
Charles A. Rowland, Jr.	61,001	135,036 (6)	—	196,037
Lonnell Coats (7)	41,091	350,997 (6)	—	392,088
Lynn Seely, M.D. (8)	32,125	407,556 (6)	—	439,681

(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 2016, 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, 2016 regarding assumptions underlying the valuation of equity awards.

(4) As of December 31, 2016, Messrs. Borisy and Lynch and Dr. Lydon held options to purchase 10,909 shares of our common stock.

(5) As of December 31, 2016, Dr. Demetri held options to purchase 46,362 shares of our common stock.

(6) As of December 31, 2016, Drs. Goldberg and Seely and Messrs. Rowland and Coats each held options to purchase 32,727 shares of our common stock.

(7) Mr. Coats was elected to our board of directors in February 2016.

(8) Dr. Seely was elected to our board of directors in April 2016.

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, 2016. As of December 31, 2016, 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

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (1)
	(a)	(b)	(c)
Equity compensation plans approved by security holders	2,622,741	\$ 11.67	2,043,501
Equity compensation plans not approved by security holders	—	—	—
Total	2,622,741	\$ 11.67	2,043,501 (2)

(1) As of December 31, 2016, (i) 1,551,519 shares remained available for future issuance under our 2015 Plan and (ii) 491,982 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, 2016.

(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 of our board of directors. 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 of our board of directors.

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, 2016 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, 2016.

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

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

PROPOSAL 2: 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, 2017. 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, 2016 and December 31, 2015. 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.

Fee Category	2016	2015
Audit Fees (1)	\$ 514,533	\$ 435,301
Audit-Related Fees (2)	—	—
Tax Fees (3)	24,000	26,500
All Other Fees (4)	1,565	1,995
Total Fees	\$ 540,098	\$ 463,796

(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 offering, which closed in December 2016, 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 2016 or 2015.

(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, 2017.

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, 2016 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

December 2016

In December 2016, 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 \$25.00 per share. The offering closed on December 13, 2016. 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.

Purchaser	Shares of Common Stock	Purchase Price
Entities affiliated with Biotechnology Value Fund, L.P.	1,400,000	\$ 35,000,000
Entities affiliated with Deerfield Mgmt, L.P.	500,000	\$ 12,500,000

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.

Purchaser	Shares of Common Stock	Purchase Price
Entities affiliated with Deerfield Mgmt, L.P.	525,000	\$ 21,000,000
Entities affiliated with Fidelity Management & Research	350,000	\$ 14,000,000
Entities affiliated with Biotechnology Value Fund, L.P.	25,000	\$ 1,000,000

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, 2017 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, 2016 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 options or restricted stock unit awards that are currently exercisable or will become exercisable within 60 days after March 31, 2017 are considered outstanding and beneficially owned by the person holding the options or restricted stock units 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 33,249,614 shares of our common stock outstanding as of March 31, 2017. Except as otherwise set forth below, the address of the beneficial owner is c/o Blueprint Medicines Corporation, 38 Sidney Street, Suite 200, 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 Fidelity Management & Research (1)	3,878,140	11.66 %
Entities affiliated with Third Rock Ventures II, L.P. (2)	3,453,753	10.39 %
Entities affiliated with Biotechnology Value Fund, L.P. (3)	3,255,280	9.79 %
Entities affiliated with Deerfield Mgmt, L.P. (4)	1,842,415	5.54 %
Entities affiliated with BlackRock, Inc. (5)	1,693,725	5.09 %
Named executive officers and directors		
Jeffrey W. Albers (6)	434,279	1.29 %
Alexis Borisy (7)	47,390	*
Lonnell Coats (8)	9,090	*
George D. Demetri (9)	47,573	*
Marion Dorsch, Ph.D.	—	*
Mark Goldberg (10)	13,939	*
Nicholas Lydon (11)	202,727	*
Daniel S. Lynch (12)	250,119	*
Tracey L. McCain (13)	312	*
Charles A. Rowland, Jr. (14)	15,757	*
Lynn Seely, M.D. (15)	7,878	*
All executive officers and directors as a group (14 persons) (16)	1,149,267	3.40 %

- (1) Based solely on a schedule 13G/A filed with the SEC on February 14, 2017 by Fidelity Management and Research LLC (“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 Form 4 filed with the SEC on February 27, 2017 by Third Rock Ventures II, L.P. (“TRV LP”). TRV LP directly owns 3,453,753 shares of common stock. Each of Third Rock Ventures II GP, LP (“TRV GP”), the general partner of TRV LP, and Third Rock Ventures GP, LLC (“TRV LLC”), the general partner of TRV GP, and Mark Levin, Kevin Starr and Robert Tepper, the managers of TRV LLC, may be deemed to share voting and investment power over the shares held of record by TRV LP. The address for TRV LP, TRV GP, TRV LLC and Messrs. Levin, Starr and Tepper is c/o Third Rock Ventures, LLC, 29 Newbury Street, 3rd Floor, Boston, MA 02116.
- (3) Based solely on a schedule 13G/A filed with the SEC on February 14, 2017 by Biotechnology Value Fund, L.P. (“BVF”). As of December 31, 2016, BVF beneficially owned 1,564,734 shares of common stock, Biotechnology Value Fund II, L.P. (“BVF II”) beneficially owned 959,457 shares of common stock and Biotechnology Value Trading Fund OS LP (“Trading Fund OS”) beneficially owned 238,070 shares of common stock. BVF Partners OS Ltd. (“Partners OS”), as the general partner of Trading Fund OS, may be deemed to beneficially own 238,070 shares of common stock beneficially owned by Trading Fund OS. BVF Partners L.P. (“Partners”), as the general partner of BVF, BVF II, the investment manager of Trading Fund OS, and the sole member of Partners OS, may be deemed to beneficially own 3,255,280 shares of common stock beneficially owned in the aggregate by BVF, BVF II, Trading Fund OS, and certain Partners managed accounts (the “Partners Managed Accounts”), including 493,019 shares of common stock held in the Partners Managed Accounts. BVF Inc. (“BVF, Inc.”), as the general partner of Partners, may be deemed to beneficially own 3,255,280 shares of common stock beneficially owned by Partners. Mark N. Lampert, as a director and officer of BVF Inc., may be deemed to beneficially own 3,255,280 shares of common stock beneficially owned by BVF, Inc. Partners OS disclaims beneficial ownership of the shares of common stock beneficially owned by Trading Fund OS. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the shares of Common Stock beneficially owned by BVF, BVF II, Trading Fund OS and the Partners Managed Accounts. The address for BVF, BVF II, Partners, BVF Inc. and Mr. Lampert is 1 Sansome Street, 30th Floor, San Francisco, CA 94104. The address for Trading Fund OS and Partners OS is PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands.
- (4) Based solely on a schedule 13G/A filed with the SEC on February 14, 2017. As of December 31, 2016, Deerfield Mgmt, L.P. beneficially owned 1,842,415 shares of common stock, Deerfield Management Company, L.P. beneficially owned 1,842,415 shares of common stock, Deerfield Partners, L.P. beneficially owned 806,977 shares of common stock, Deerfield International Master Fund, L.P. beneficially owned 1,035,438 shares of common stock and James E. Flynn beneficially owned 1,842,415 shares of common stock. The address for James E. Flynn, Deerfield Mgmt, L.P., Deerfield Management Company, L.P., Deerfield Partners, L.P., Deerfield International Master Fund, L.P. is 780 Third Avenue, 37th Floor, New York, NY 10017.
- (5) Based solely on a schedule 13G filed with the SEC on January 30, 2017 by BlackRock Inc. (“BlackRock”). The address for BlackRock is 55 East 52nd Street, New York, NY 10055.
- (6) Consists of (i) 55,486 shares of common stock and (ii) 378,793 options to purchase shares of common stock that are exercisable as of March 31, 2017 or will become exercisable within 60 days after such date.
- (7) Consists of 47,390 shares of common stock.

- (8) Consists of 9,090 options to purchase shares of common stock that are exercisable as of March 31, 2017 or will become exercisable within 60 days after such date.
- (9) Consists of (i) 18,181 shares of common stock and (ii) 29,392 options to purchase shares of common stock that are exercisable as of March 31, 2017 or will become exercisable within 60 days after such date.
- (10) Consists of 13,939 options to purchase shares of common stock that are exercisable as of March 31, 2017 or will become exercisable within 60 days after such date.
- (11) Consists of 202,727 shares of common stock.
- (12) Consists of 250,119 shares of common stock.
- (13) Consists of 312 options to purchase shares of common stock that are exercisable as of March 31, 2017 or will become exercisable within 60 days after such date.
- (14) Consists of 15,757 options to purchase shares of common stock that are exercisable as of March 31, 2017 or will become exercisable within 60 days after such date.
- (15) Consists of 7,878 options to purchase shares of common stock that are exercisable as of March 31, 2017 or will become exercisable within 60 days after such date.
- (16) Consists of (i) 573,903 shares of common stock and (ii) 575,364 options to purchase shares of common stock that are exercisable as of March 31, 2017 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 2016.

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 29, 2017, 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 2017 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 2018 annual meeting of stockholders but not included in the proxy statement by March 22, 2018, but not before February 20, 2018, 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 2018 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, 38 Sidney Street, Suite 200, 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 2016 annual report to stockholders, which consists of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, to you if you contact us at Blueprint Medicines Corporation, 38 Sidney Street, Suite 200, 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.

BLUEPRINT MEDICINES CORPORATION
 ATTN: TRACEY L. NOGAIN
 38 SIDNEY STREET, SUITE 200
 CAMBRIDGE, MA 02139

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Daylight Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Daylight Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

KEEP THIS PORTION FOR YOUR RECORDS
 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

	For All	Withhold All	For All Except		
<p>The Board of Directors recommends you vote FOR the following:</p> <p>1. Election of Directors</p> <p>Nominees</p> <p>01 Alexis Borisy 02 Lonnel Coats 03 Charles A. Rowland, Jr.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<p>To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.</p>
<p>The Board of Directors recommends you vote FOR the following proposal:</p> <p>2 Ratification of the appointment of Ernst & Young LLP as independent registered public accounting firm for the fiscal year ended December 31, 2017.</p> <p>NOTE: The proxies are authorized to vote, in their discretion, upon such other business as may properly come before the meeting or any adjournment or postponement thereof.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<p>For Against Abstain</p>
<p>For address change/comments, mark here. (see reverse for instructions)</p>	<input type="checkbox"/>				
<p>Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name, by authorized officer.</p>					
Signature [PLEASE SIGN WITHIN BOX]		Date		Signature (Joint Owners)	Date

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice & Proxy Statement, Annual Report to Stockholders are available at www.proxyvote.com

BLUEPRINT MEDICINES CORPORATION
Annual Meeting of Stockholders
June 20, 2017 3:00 PM
This proxy is solicited by the Board of Directors

The stockholder(s) hereby appoint(s) Jeffrey W. Albers, Tracey L. McCain and Michael Landsittel, or any of them, as proxies, each with the power to appoint his or her substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of common stock of BLUEPRINT MEDICINES CORPORATION that the stockholder(s) is/are entitled to vote at the Annual Meeting of stockholder(s) to be held at 3:00 PM, Eastern Daylight Time, on June 20, 2017 at our offices, 38 Sidney Street, Suite 200, Cambridge, MA, 02139, and any adjournment or postponement thereof.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.

Address change/comments:

(If you noted any Address Changes and/or Comments above, please mark corresponding box on the reverse side.)

Continued and to be signed on reverse side

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