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.)

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	Preliminary Proxy Statement				
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	Definitive Additional Materials				
	Soliciting Material Pursuant to §2-	10.14a-12			
	BLUI	EPRINT MEDICINES CORPORATION (Name of Registrant as Specified In Its Charter)			
		(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)			
Payme	nt of Filing Fee (Check all boxes th				



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

NOTICE OF 2022 ANNUAL MEETING OF STOCKHOLDERS

To Be Held On June 21, 2022

Dear Stockholders:

You are cordially invited to attend the 2022 annual meeting of stockholders of Blueprint Medicines Corporation to be held on Tuesday, June 21, 2022 at 3:30 p.m., Eastern Daylight Time, virtually via live webcast at http://www.virtualshareholdermeeting.com/BPMC2022, where you will be able to vote electronically and submit questions. You will need the 16-digit control number included with these proxy materials to attend the annual meeting. At the annual meeting, stockholders will consider and vote on the following matters:

- The election of three Class I directors nominated by our board of directors, each to serve for a three-year term expiring at the 2025 annual meeting of stockholders or until his or her successor has been duly elected and qualified;
- 2. To approve a non-binding, advisory vote on the compensation paid to our named executive officers;
- 3. The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2022; and
- 4. 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 25, 2022 will be entitled to notice of and to vote at the annual meeting or any adjournment or postponement thereof. We encourage you to access the annual meeting before it begins. Online check-in to access the meeting will start shortly before the meeting on June 21, 2022. If you attend the annual meeting at http://www.virtualshareholdermeeting.com/BPMC2022, you may vote electronically during the meeting even if you have previously returned a proxy. Stockholders will also have the opportunity to submit questions during the annual meeting through http://www.virtualshareholdermeeting.com/BPMC2022. A technical support telephone number will be posted on the log-in page that you can call if you encounter any difficulties accessing the virtual meeting during the check-in or during the meeting.

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 online. However, whether or not you plan to attend the annual meeting, 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,

Hote & Hom

Kathryn Haviland

President and Chief Executive Officer

Cambridge, Massachusetts April 29, 2022

Important Notice Regarding Internet Availability of Proxy Materials:

We are furnishing proxy materials to our stockholders primarily via the Internet. On April 29, 2022, we mailed to our stockholders a Notice of Internet Availability, or Notice, containing instructions on how to access our proxy materials, including this proxy statement and our 2021 annual report. The Notice also instructs you on how to submit your proxy or voting instructions through the Internet or to request a paper copy of our proxy materials, including a proxy card or voting instruction form that includes instructions on how to submit your proxy or voting instructions by mail or telephone. Other stockholders, in accordance with their prior requests, have received e-mail access to our proxy materials and instructions to submit their vote via the Internet, or have been mailed paper copies of our proxy materials and a proxy card or voting instruction form.

A copy of this proxy statement and our 2021 annual report to stockholders are available at www.proxyvote.com.

Internet distribution of our proxy materials is designed to expedite receipt by stockholders, lower the cost of the annual meeting, and conserve natural resources. However, if you would prefer to receive printed proxy materials, please follow the instructions included in the Notice. If you have previously elected to receive our proxy materials electronically, you will continue to receive these materials via e-mail unless you elect otherwise.

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

PROXY STATEMENT

2022 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JUNE 21, 2022

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 online on Tuesday, June 21, 2022 at 3:30 p.m., Eastern Daylight Time, and at any adjournment thereof. The annual meeting will be held entirely online this year at https://www.virtualshareholdermeeting.com/BPMC2022. We encourage all stockholders to attend the annual meeting online. However, whether or not you plan to attend the annual meeting, we encourage you to read this proxy statement and submit your proxy or voting instructions as soon as possible. Additional details regarding attending the virtual annual meeting and voting at the meeting are provided below

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 subsidiaries. References to our website are inactive textual references only, and the contents of our website are not incorporated by reference into this proxy statement.

This proxy statement summarizes information about the proposals to be considered at the meeting and other information you may find useful in determining how to vote. The proxy card is the means by which you actually authorize another person to vote your shares in accordance with your instructions. We are making this proxy statement, the related proxy card and our 2021 annual report to stockholders available to stockholders for the first time on or about April 29, 2022.

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as filed with the Securities and Exchange Commission, or SEC, except for exhibits, will be furnished without charge to any stockholder upon written or oral request to Blueprint Medicines Corporation, 45 Sidney Street, Cambridge, Massachusetts 02139 or by calling 1-800-579-1639, by emailing sendmaterial@proxyvote.com or by submitting a request over the Internet at www.proxyvote.com. This proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2021 are also available on the SEC's website at www.sec.gov and the "Investors & Media—SEC Filings" section of our website, which is located at http://ir.blueprintmedicines.com.

IMPORTANT INFORMATION ABOUT THE ANNUAL MEETING AND VOTING

Q. Why did I receive these proxy materials?

A. We have made these materials available to you on the Internet in connection with the solicitation of proxies for use at our 2022 annual meeting of stockholders to be held online on Tuesday, June 21, 2022 at 3:30 p.m., Eastern Daylight Time, at http://www.virtualshareholdermeeting.com/BPMC2022. As a holder of common stock, you are invited to attend the annual meeting online 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 I directors nominated by our board of directors, each to serve for a three-year term expiring at the 2025 annual meeting of stockholders or until his or her successor has been duly elected and qualified (Proposal 1);
 - 2. A non-binding, advisory vote on the compensation paid to our named executive officers (Proposal 2);
 - 3. The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2022 (Proposal 3); and
 - 4. The transaction of any other business that may properly come before the annual meeting or any adjournment or postponement thereof.

O. 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 25, 2022, the record date for our annual meeting. As of the record date, there were 59,570,547 shares of our common stock outstanding and entitled to vote at the annual meeting.

O. 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.

O. 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 as follows:
 - 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 20, 2022, 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 1-800-690-6903, and follow the instructions provided on the proxy card. If you vote by telephone, you do not need to complete and mail your proxy ord 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 20, 2022, 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 20, 2022, 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. During the Annual Meeting: You may vote during the annual meeting by going to http://www.virtualshareholdermeeting.com/BPMC2022 and following the instructions on that website for submitting your vote. You will need the 16-digit control number included on your Notice. If you previously voted via the Internet (or by telephone or mail), you will not limit your right to vote online at the annual 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 3) 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 3

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 I directors (Proposal 1) and a non-binding, advisory vote on the compensation paid to our named executive officers (Proposal 2) is not considered to be a discretionary item. Accordingly, if you do not give your bank, brokerage firm or other nominee voting instructions on Proposals 1 or 2 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 annual meeting online. You may not vote shares held in street name at the annual 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 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.

O. How do I attend the annual meeting online?

A. Our 2022 annual meeting will be held entirely online because it allows stockholders to attend the meeting from anywhere while providing stockholders the same rights and opportunities as an in-person meeting and it enables us to continue to support the health and well-being of our partners, employees, and stockholders during the continuing uncertainty and public health impact of the COVID-19 pandemic. There will not be a physical location for in-person stockholder attendance at the meeting. Stockholders of record as of April 25, 2022 will be able to attend and participate in the annual meeting by accessing http://www.virtualshareholdermeeting.com/BPMC2022. To join the annual meeting, you will need to have your 16-digit control number, which is included on your Notice and your proxy card.

Even if you plan to attend the annual meeting online, we recommend that you also vote by proxy as described herein so that your vote will be counted if you decide not to attend the annual meeting.

Log in Instructions. To attend the online annual meeting, log in at http://www.virtualshareholdermeeting.com/BPMC2022. Stockholders will need their unique 16-digit control number, which appears on the Notice and the instructions that accompanied the proxy materials. In the event that you do not have a control number, please contact your broker, bank, or other nominee as soon as possible and no later than June 20, 2022, so that you can be provided with a control number and gain access to the meeting.

Q. How do I ask questions at the annual meeting?

A: If you have logged into the annual meeting using your 16-digit control number and wish to ask a question during the meeting, you may do so on the virtual meeting website by typing your question into the "Ask a Question" field, and clicking "Submit." Those without a control number will not have the option to ask questions during the meeting.

If questions submitted are repetitive as to a particular topic, the Chairman of the meeting may limit discussion on such topic. During the formal portion of the meeting, all questions presented should relate directly to the proposal under discussion. We will also hold a question and answer period at the end of the meeting, as time permits, during which time we welcome questions not relating to specific proposals.

For further details, please review the annual meeting's Rules of Conduct, which will be posted on http://www.virtualshareholdermeeting.com/BPMC2022 during the annual meeting.

Following the annual meeting, an archived replay of the audio webcast will be available on the Investor Relations section of our website for approximately 30 days thereafter.

Q: How do I access technical support at the annual meeting?

A: Beginning 15 minutes prior to the start of and during the virtual annual meeting, we will have a support team ready to assist stockholders with any technical difficulties they may have accessing or hearing the virtual meeting. If you encounter any difficulties accessing the virtual meeting during the check-in or meeting time, please call the technical support number that will be posted on the virtual shareholder meeting log-in page.

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 online and vote 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 at the annual meeting online if you obtain a legal proxy as described in the answer above.

O. 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 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 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, online or by proxy, of holders representing a majority of our outstanding common stock as of the record date, April 25, 2022, or approximately 29,785,274 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 I 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 nominee(s); 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— Non-Binding Advisory Vote on the Compensation Paid to Named Executive Officers

To approve Proposal 2, holders of a majority of the votes cast on the matter must vote FOR the proposal. **Proposal 2 is a non-discretionary matter.** Therefore, if your shares are held by your brokerage firm in street name and you do not timely provide voting instructions with respect to your shares, your brokerage firm cannot vote your shares on Proposal 2. If you ABSTAIN from voting on Proposal 2, your shares will not be voted FOR or AGAINST the proposal and will also not be counted as votes cast or shares voting on the proposal. As a result, such "broker non-votes" and abstentions will have no effect on the voting on

Proposal 2. Proposal 2 is non-binding. Because this vote is advisory and not binding on us or our board in any way, our board may decide that it is in our and our stockholders' best interests to compensate our named executive officers in an amount or manner that differs from that which is approved by our stockholders.

Proposal 3—Ratification of the Appointment of Independent Registered Public Accounting Firm

To approve Proposal 3, holders of a majority of the votes cast on the matter must vote FOR the proposal. **Proposal 3 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 3. If you ABSTAIN from voting on Proposal 3, your shares will not be voted FOR or AGAINST the proposal and will also not be counted as votes cast or shares voting on the proposal. As a result, voting to ABSTAIN will have no effect on the outcome of Proposal 3.

Although stockholder approval of our audit committee's appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2022 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 ending December 31, 2022.

O. 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 all of the nominees to serve as Class I directors, each for a three-year term; and

FOR the approval, on a non-binding, advisory basis, of the compensation of our named executive officers; and

FOR the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2022.

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 I directors, the approval of the compensation of our named executive officers and the ratification of the appointment of our independent registered public accounting firm. If any other matters are properly presented at the annual meeting, the persons named in the accompanying proxy intend to vote, or otherwise act, in accordance with their judgment on the matter.

Q. Where can I find the voting results?

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

Q. What are the costs of soliciting these proxies?

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

We have engaged Innisfree M&A Incorporated, or Innisfree, to solicit proxies from stockholders in connection with the annual meeting. We will pay Innisfree a fee of approximately \$25,000, plus reasonable out-of-pocket fees and expenses for soliciting proxies. In addition, Innisfree and certain related persons will be indemnified against certain liabilities arising out of or in connection with the engagement.

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

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

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

PROPOSAL 1 — ELECTION OF DIRECTORS

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

The term of office of our Class I directors, Jeffrey Albers, Mark Goldberg, M.D. and Nicholas Lydon, Ph.D., will expire at the 2022 annual meeting of stockholders. The nominees for Class I directors for election at the 2022 annual meeting of stockholders are Mr. Albers and Drs. Goldberg and Lydon. If any of Mr. Albers and Drs. Goldberg and Lydon are elected at the 2022 annual meeting of stockholders, such individual will be elected to serve for a three-year term that will expire at our 2025 annual meeting of stockholders and until such individual's successor is elected and qualified.

If no contrary indication is made, proxies in the accompanying form will be voted for Mr. Albers and Drs. Goldberg and Lydon or, in the event that any of Mr. Albers and Drs. Goldberg and Lydon 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 I directors, as of April 4, 2022. 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 that the nominating and corporate governance committee expects of each director, which are described in "-Director Nomination Process'

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

On April 26, 2022, Charles A. Rowland, Jr. notified us that due to his other professional commitments and demands on his time, he is resigning from our board of directors (which includes his service on our audit committee, of which he is the chair, and our compensation committee) effective immediately prior to the 2022 annual meeting of stockholders. Mr. Rowland's decision did not result from any disagreement with us on any matter relating to our operations, policies or

Name	Age	Position(s)	
Class I Directors Nominees			
Jeffrey W. Albers	50	Executive Chairman, Director	
Mark Goldberg, M.D. (1)(4)	67	Director	
Nicholas Lydon, Ph.D. (3)(4)	65	Director	
Class II Directors			
Alexis Borisy (4)	50	Director	
Lonnel Coats (1)(2)(3)	57	Director	
Kathryn Haviland	46	President and Chief Executive Officer, Director	
Charles A. Rowland, Jr. (1)(2)	63	Director	
Class III Director Nominees			
Daniella Beckman (1)	43	Director	
George D. Demetri, M.D. (3)(4)	65	Director	
Lynn Seely, M.D. (2)(4)	63	Lead Independent Director	

- Member of the audit committee.
 Member of the compensation committee.
 Member of the nominating and corporate governance committee.
 Member of the research and development committee.

Class I Director Nominees — For a Three-Year Term Expiring at the 2025 Annual Meeting of Stockholders

Jeffrey W. Albers has served as our executive chairman since April 4, 2022. Prior to that he served as our president and chief executive officer from July 2014 to April 2022. In addition, Mr. Albers has served on the board of directors of Magenta Therapeutics, Inc. since July 2017 and is currently a member of its audit committee and its compensation committee. Mr. Albers has also served on the board of directors of Kymera Therapeutics, Inc. since September 2020 and is currently a member of its compensation committee. Mr. Albers has over fifteen years 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 was a member of the management team and oversaw the U.S. commercial and business functions. Prior to Algeta, from July 2005 to November 2011, Mr. Albers was at Genzyme Corporation, or Genzyme, a biotechnology company that is now a wholly-owned subsidiary of Sanofi S.A., most recently as vice president of the U.S. hematology and oncology business unit. Mr. Albers received a B.S. from Indiana University and an M.B.A. and a J.D. from Georgetown University. We believe that Mr. Albers' leadership in the life sciences industry qualifies him to serve on our board of directors.

Mark Goldberg, M.D. has served as a member of our board of directors since June 2015. Dr. Goldberg has served as a member of the board of directors of ImmunoGen, Inc. since November 2011, including currently serving as a member of its compensation committee and its governance and nomination committee, and as a member of the board of directors of GlycoMimetics, Inc. since July 2014, currently serving as chair of its governance and nomination committee and a member of its compensation committee. Dr. Goldberg has also served as a member of the board of directors of Idera Pharmaceuticals, Inc. since March 2014 currently serving on its audit committee and as chair of its science and technology committee, and a member of the board of directors of Avacta Group plc since August 2021. Additionally, he has been a member of the board of directors of Walden Biosciences since March 2020. Dr. Goldberg served in various executive capacities of increasing responsibility at Synageva BioPharma Corp., or Synageva, a biopharmaceutical company, from 2011 to 2014, including as executive vice president, medical and regulatory strategy from January to October 2014. From October 2014 through the acquisition of Synageva by Alexion Pharmaceuticals, Inc. in 2015, Dr. Goldberg, while no longer an officer, remained employed by Synageva contributing to medical and regulatory strategy. Prior to joining Synageva, Dr. Goldberg served in various management capacities of increasing responsibility at Genzyme from November 1996 to July 2011, including 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 and he still has an appointment at Brigham and Women's Hospital. He served as a member of the board of directors of Audentes Therapeutics, Inc. between December 2017 and its acquisition by Astellas Pharma Inc. in January 2020, and from April 2015 until December 2017 was a member of the board of directors of aTyr Pharma, Inc. Dr. Goldberg is a part-time Lecturer in Medicine at Harvard Medical School. From 2015 to 2018 he served as acting chief medical officer of CANbridge Life Sciences Ltd. where he is still an advisor. From 2010 to 2017, Dr. Goldberg served on the board of directors of the New England Division of the American Cancer Society. Since December 2017, he has been on the eastern New England Board of the American Cancer Society serving as the chair from December 2017 until April 2020, and since January 2019 has been a member of the national board of directors of the American Cancer Society currently serving on the audit committee, governance committee, compensation committee and as chair of the mission outcomes committee. Dr. Goldberg received an A.B. in biochemical sciences from Harvard College 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., FRS is a scientific founder of Blueprint Medicines and has served as a member of our board of directors since April 2011 and as a member of our scientific advisory board since 2017. Dr. Lydon is a co-founder and chairman of Recludix Pharma Inc. and has served as a member of its board of directors and as a scientific advisor since 2019. Dr. Lydon is a managing member of VB Therapeutics LLC, which he co-founded in 2019. Dr. Lydon is a co-founder of IDRX, Inc., which was formed in 2021. In addition, Dr. Lydon currently serves as the managing member of Staurus Biopharma, LLC, a privately held biopharmaceutical company that he co-founded. Dr. Lydon is a co-founder of AnaptysBio Inc. and served as a scientific advisor and member of its board of directors between 2006 and 2019. From 2003 to 2011, Dr. Lydon served as a scientific advisor and member of the board of directors of Ambit Biosciences Corp., a biopharmaceutical company. From 2000 to 2002, Dr. Lydon served as vice president, small molecule drug discovery, at Amgen, Inc., or Amgen. Prior to joining Amgen, 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 as a 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 has been awarded the Lasker-DeBakey Clinical Medical Research Award, the Kettering Price from the General Motors Cancer Research Foundation and the Japan Prize for his role in the 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

Class II Directors — Term Expiring at the 2023 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. Mr. Borisy is the executive chairman, co-founder, and former chief executive officer of EQRx Inc., a pharmaceutical company committed to developing and delivering innovative medicines to patients at radically lower prices. From 2010 to 2019, Mr. Borisy was a partner at Third Rock Ventures, a life sciences venture capital firm focused on the formation, development and strategy of new companies. Mr. Borisy currently serves as chairman on the board of directors of Relay Therapeutics, Inc., and serves on its audit, compensation, and research and development committees, and as chairman on the board of directors of Tango Therapeutics, Inc. and on its audit and compensation committees. In addition, Mr. Borisy serves on the board of directors for Revolution Medicines, Inc. and as a member of its compensation committee

and nominating and corporate governance committee, and on the board of directors of Magenta Therapeutics, Inc. and on its compensation committee and nomination and corporate governance committee. Mr. Borisy also serves on the board of directors of Celsius Therapeutics, Inc., a privately held biopharmaceutical company, and previously served as its chief executive officer. From November 2013 to March 2018, Mr. Borisy served as a member of the board of directors of Editas Medicine, Inc. From 2007 to 2012, Mr. Borisy served as chairman of FORMA Therapeutics, Inc., a biopharmaceutical company focused on discovering and developing medicines in cancer and other genetically-driven diseases. Mr. Borisy co-founded Foundation Medicine, Inc., or Foundation Medicine, where he served as its interim chief executive officer from 2009 to 2011 and served as a member of its board of directors from 2009 until its acquisition by F. Hoffmann-La Roche AG, 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 2009 to 2009. Mr. Borisy received an A.B. in chemistry from the University of Chicago and an A.M. in chemistry and chemical biology 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 life sciences venture capital industry qualifies him to serve on our board of directors.

Lonnel Coats has served as a member of our board of directors since February 2016. Since July 2014, Mr. Coats has served as chief executive officer and a member of the board of directors of Lexicon Pharmaceuticals, Inc., or Lexicon, a biopharmaceutical company with a mission of pioneering medicines that transform patients' lives in a range of diseases including neuropathic pain, heart failure, diabetes, and metabolism. 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, both of which are 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.

Kathryn Haviland has served as our president and chief executive officer and as a member of our board of directors since April 4, 2022. Ms. Haviland previously served as our chief operating officer from January 2019 to April 2022 and as our chief business officer from January 2016 to January 2019. Ms. Haviland also currently serves as chairperson of the board of directors and as a member of the audit and compensation committees of Fulcrum Therapeutics, Inc. Prior to joining us, Ms. Haviland served as vice president, rare diseases and oncology program leadership at Idera Pharmaceuticals, Inc. from April 2014 to December 2015, as head of commercial development at Sarepta Therapeutics, Inc. from June 2012 to April 2014, as executive director of Commercial Development at PTC Therapeutics, Inc. from April 2007 to June 2012 and held various 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. We believe that Ms. Haviland's leadership experience in the life sciences industry and at our company qualifies her to serve as a member of our board of directors.

Charles A. Rowland, Jr., M.B.A. has served as a member of our board of directors since March 2015. From April 2016 to February 2017, Mr. Rowland served as president and chief executive officer of Aurinia Pharmaceuticals Inc., or Aurinia, and as a member of the board of directors of Aurinia from July 2014 to February 2017. Mr. Rowland previously served as vice president and chief financial officer of ViroPharma Incorporated, or ViroPharma, an international biopharmaceutical company, from October 2008 until it was acquired by Shire plc in January 2014. Prior to joining ViroPharma, from 2006 to 2008, Mr. Rowland served as executive vice president and chief financial officer, as well as the interim co-chief executive officer, for Endo Pharmaceuticals Inc., a specialty pharmaceutical company with a primary focus in pain management. Mr. Rowland previously held positions of increasing responsibility at the following biopharmaceutical companies: Biovail Pharmaceuticals, Inc., Breakaway Technologies, Inc., Pharmacia Corporation, Novartis AG and Bristol-Myers Squibb Co. Mr. Rowland has served as a member of the board of directors and chairman of the audit committee and compensation committee of Orchard Therapeutics plc since July 2017, and as a member of the board of directors, chairman of the compensation committee of the haudit committee of Viking Therapeutics, Inc. since July 2017, and as a member of the board of directors and chairman of the audit committee of Nabriva Therapeutics, AG, since January 2015. In addition, Mr. Rowland currently serves on the board of directors and as chairman of the audit committee of Generation Bio. Mr. Rowland has also previously served as a member of the board of directors of Idenix Pharmaceuticals, Inc., Vitae Pharmaceuticals, Inc., BIND Therapeutics, Inc. and PsiOxus Therapeutics. 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 a

Class III Directors Nominees —Term Expiring at the 2024 Annual Meeting of Stockholders

Daniella Beckman has served as a member of our board of directors since December 2021. Since September 2019, she has served as the chief financial officer of Tango Therapeutics, Inc., or Tango. Prior to joining Tango, Ms. Beckman provided consulting services and served as the interim chief financial officer for early-stage biotechnology companies from November 2015 to September 2019. Previously, Ms. Beckman was chief financial officer of Idenix Pharmaceuticals, Inc., where she was responsible for finance,

investor relations, and IT from June 2011 until the company was acquired by Merck in 2014. Earlier in her career, she held various finance positions at Coley Pharmaceutical Group, Inc., Biogen Inc., and PricewaterhouseCoopers. Ms. Beckman also serves as a member of the board of directors of Vor Biopharma Inc., as chair of its audit committee and as a member of its compensation committee, and as a member of the board of directors of 5:01 Acquisition Corp., as chair of the audit committee and as a member of the nomination and governance committee. She also previously served a member of the board of directors of Translate Bio, Inc. and as chair of both its audit committee and its nomination and governance committee. Ms. Beckman received her BA in business administration and accounting from Boston University. We believe that Ms. Beckman's deep financial and operational experience across the biotechnology industry, having worked with both private and publicly traded companies throughout her career, qualifies her to serve as a member of our board of directors.

George D. Demetri, M.D., FASCO has served as a member of our board of directors since December 2014. Since 1989, Dr. Demetri has served on the faculty of the Dana-Farber Cancer Institute, or DFCI, and Harvard Medical School, where he is a Professor of Medicine and serves as a co-director of the Ludwig Center at Harvard. At DFCI, Dr. Demetri is Director of the Sarcoma Center, the senior vice president for Experimental Therapeutics, the Quick Family Chair in Medical Oncology and an associate director for clinical sciences at the NCI-designated Dana-Farber/Harvard Comprehensive Cancer Center Consortium. Dr. Demetri's research and clinical interests have centered on mechanism-based drug development for solid tumors, with an emphasis on molecularly-defined subsets of sarcomas such as gastrointestinal stromal tumors. Dr. Demetri has contributed to the development of several new drugs for sarcomas and other malignancies, including imatinib, sunitinib, dasatinib, trabectedin, everolimus, pazopanib and regorafenib. He was also a member of the scientific advisory board for Plexxikon Inc. and helped to develop the mutant BRAF inhibitor, venurafenib. In addition, Dr. Demetri has served as a member of the board of directors of Translate Bio since July 2019. Dr. Demetri also previously served as a member of the board of directors and organization and compensation committee of Merrimack Pharmaceuticals, Inc. between December 2017 and October 2019. Dr. Demetri serves as chair of the Science Policy and Government Affairs Committee for the American Association for Cancer Research as well as several other scientific and editorial advisory boards. Dr. Demetri received an A.B. in biochemistry from Harvard College and an M.D. from Stanford University School of Medicine. We believe that Dr. Demetri's more than 25 years of experience as an oncologist and his significant leadership experience on various national and international scientific and company advisory boards qualifies him to serve as a member of our board of directors.

Lynn Seely, M.D. has served as a member of our board of directors since April 2016 and as our lead independent director since June 2021. In addition, Dr. Seely has served as a member of the board of directors and on the nominating and corporate governance committee of Lyell Immunopharma, Inc. since May 2021. Between June 2016 and January 2021, Dr. Seely served as the chief executive officer and a member of the board of directors of Myovant Sciences, Inc., or Myovant, a biopharmaceutical company focused on redefining care for women and for men by developing and commercializing innovative therapies such as ORGOVYX (relugolix), approved for the treatment of men with advanced prostate cancer, and MYFEMBREE, approved for the treatment of women with uterine fibroids and heavy menstrual bleeding. Prior to joining Myovant, Dr. Seely served as chief medical officer at Medivation, Inc. from March 2005 until her retirement in October 2015. In this role, Dr. Seely led the development of XTANDI (enzalutamide) from the first-in-human clinical trial through global approvals for the treatment of men with castration-resistant prostate cancer. Dr. Seely previously served as vice president of clinical development at Anevisa, Inc. (formerly Corgentech Inc.), Cycte Health Corporation and ProDuct Health, Inc., and 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 EACH OF JEFFREY ALBERS, MARK GOLDBERG, M.D., AND NICHOLAS LYDON, PH.D., TO SERVE AS CLASS I 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 & Media — Corporate Governance" section of our website, which is located at http://ir.blueprintmedicines.com. Alternatively, you can request a copy of any of these documents by contacting us at Blueprint Medicines Corporation, 45 Sidney Street, Cambridge, Massachusetts 02139, Attn: Investor Relations, telephone: (617) 714-6674, e-mail: ir@blueprintmedicines.com.

Code of Business Conduct and Ethics and Corporate Governance Guidelines

Our board of directors has adopted a written code of business conduct and ethics, as amended, 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 our code of business conduct and ethics is available on the "Investors & Media — Corporate Governance" section of our website, which is located at http://ir.blueprintmedicines.com. We intend to disclose on our website any amendments to, or waivers from, our 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 our corporate governance guidelines is available on the "Investors & Media — Corporate Governance' section of our website, which is located at http://ir.blueprintmedicines.com.

Board Leadership Structure and Risk Oversight

Board Leadership Structure

Under our corporate governance guidelines, the positions of chairperson our board of directors and of chief executive officer may, but need not be, the same person. Additionally, our corporate governance guidelines provide that if the chairperson of the board of directors is not an independent director, then the independent directors may elect one independent director to serve as the lead independent director.

Until June 2021, Daniel Lynch served as chairperson of the board of directors. When his tenure ended in June 2021, Jeffrey W. Albers, our president and chief executive officer, became chairperson of the board. Because Mr. Albers is employed by us, the board does not consider him to be an "independent" director. Therefore, in June 2021, the board designated Lynn Seely as our lead independent director. Dr. Seely's service as lead independent director provides an effective independent voice in our leadership structure, encouraging objective oversight of management's performance and enhancing the effectiveness of the board of directors as a whole. As lead independent director, Dr. Seely presides over meetings of our independent directors, serves as a liaison between our executive chairman and the independent directors and performs such additional duties as our board of directors may otherwise determine and delegate.

Currently, the roles of chairperson and chief executive officer are separated. On April 4, 2022, Mr. Albers transitioned from his prior role as our president and chief executive officer and became executive chairman of the board of directors, and Kathryn Haviland became our president and chief executive officer and a member of our board. Assuming that Mr. Albers is reelected as a director at the 2022 annual meeting, Mr. Albers will serve as executive chairman of the board of directors through December 31, 2022, with continued service as chairman of the board of directors thereafter. Mr. Albers possesses detailed and first-hand knowledge of the issues, opportunities, and challenges facing our business, making him well-suited to preside over meetings of, and oversee, our board of directors. Because Mr. Albers has been employed by us in his role as president and chief executive officer, and continues to be employed by us in his role as executive chairman, the board does not consider him to be an "independent" director in his role as executive chairman of the board and does not expect to consider him to be "independent" in his role as chairman of the board of directors.

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. Meanwhile, the extensive company-specific experience and expertise of Mr. Albers and Ms. Haviland, together with the outside experience, oversight and expertise of our independent directors, allows for differing perspectives and roles regarding strategy development that benefit our stockholders.

We believe that our current leadership structure provides effective independent director oversight of management, while allowing our board to benefit from Mr. Albers' and Ms. Haviland's experience and leadership in our business, enabling Mr. Albers and Ms. Haviland to act as key links between our board of directors and other members of management and enhancing our ability to communicate our strategy clearly and consistently to our investors, employees and partners. We and our board of directors continue to review the leadership structure of the board on a regular basis.

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

Our board of directors annually undertakes a review of the composition of our board of directors and its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that each of our directors, with the exception of Jeffrey W. Albers and Kathryn Haviland, 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 currently employed as our president and chief executive officer. Ms. Haviland is not an independent director under Rule 505(a)(2) because she is currently employed as our president and chief executive officer and, until April 4, 2022, was previously employed as our chief operating officer. Our board of directors also determined that Charles A. Rowland, Jr., Daniella Beckman, Lonnel Coats and Mark Goldberg, who comprise our audit committee, Lynn Seely, Lonnel Coats, and Charles A. Rowland, Jr., who comprise our compensation committee, Daniel Lynch, who served on our compensation committee until his tenure on our board of directors ended in June 2021, and George D. Demetri, Lonnel Coats 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. 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 and acted by unanimous written consent eight times during the year ended December 31, 2021. During the year ended December 31, 2021, 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 except Ms. Beckman, who joined our board of directors on December 8, 2021 and missed one meeting of the board of directors.

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 2021 annual meeting of stockholders other than Mr. Lynch, whose term expired at our 2021 annual meeting of stockholders.

Communicating with the Board of Directors

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

Stockholders who wish to send communications on any topic to our board of directors (or any individual director) should address such communications to Blueprint Medicines Corporation, Attention: Board of Directors, 45 Sidney Street, Cambridge, Massachusetts 02139. Upon receipt of such communications, the correspondence will be directed to the appropriate person, including individual directors. A copy of any such written communication may also be forwarded to the company's legal counsel and a copy of such communication may be retained for a reasonable period of time. You may submit your concern anonymously or confidentially.

The audit committee oversees the procedures for the receipt, retention, and treatment of complaints received by the company regarding accounting, internal accounting controls or auditing matters, and the confidential, anonymous submission by employees of concerns regarding questionable accounting or auditing matters. The company has also established a toll-free telephone number for the reporting of such activity, which is 1-844-857-5642.

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 & Media — Corporate Governance" section of our website, which is located at http://ir.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., Daniella Beckman, Lonnel Coats and Mark Goldberg. Mr. Rowland serves as chair of the audit committee. Our board of directors has determined that each of Mr. Rowland and Ms. Beckman qualifies as an "audit committee financial expert" within the meaning of applicable SEC rules. The audit committee held five meetings and acted by unanimous written consent one time during the year ended December 31, 2021.

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;
- reviewing and 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 evaluating the performance of 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 Lynn Seely, Lonnel Coats and Charles A. Rowland, Jr. Dr. Seely serves as chair of the compensation committee. Daniel Lynch served as chair of the compensation committee in 2021 until his tenure on our board of directors ended in June 2021. The compensation committee held eight meetings and acted by unanimous written consent sixteen times during the year ended December 31, 2021.

The compensation committee may delegate its authority to our chief executive officer to grant certain equity awards to certain individuals, and our compensation committee has delegated such authority to Mr. Albers with respect to certain equity awards. For more information, please see "Compensation Discussion and Analysis—Overview of Executive Compensation Process."

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee's responsibilities include:

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

The members of our nominating and corporate governance committee are George Demetri, Lonnel Coats and Nicholas Lydon. Dr. Demetri serves as chair of the nominating and corporate governance committee held two meetings during the year ended December 31, 2021.

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 one meeting during the year ended December 31, 2021.

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.

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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 candidates history of actively contributing to any boards of directors on which the candidate previously served.

The director biographies on pages 6-9 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 such individual 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.

The nominating and corporate governance committee board are committed to equity, diversity and inclusion. We believe that our board of directors, taken as a whole, should embody a diverse set of skills, experiences and backgrounds. While our nominating and corporate governance committee does not assign any particular weighting of diversity or any other characteristic, the committee and our board of directors take diversity into consideration, including with respect to gender, race and national origin, 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.

Board Diversity

Diversity is among the relevant factors considered by our board of directors and corporate governance committee for membership on our board of directors. The table below provides certain highlights relating the composition and diversity of our board of directors. Each of the categories listed in the below table has the meaning used in Nasdag Listing Rule 5605(f).

Board Diversity Matrix (as of April 4, 2022)

Total Number of Directors	Female	Male	Non-Binary	Did not Disclose Gender
Directors	3	7	- '	-
Number of Directors who identify in Any of the Categories Below:	-	-	-	-
African American or Black	-	1	-	-
Alaskan Native or Native American	-	-	-	-
Asian	-	-	-	-
Hispanic or Latinx	-	-	-	-
Native Hawaiian or Pacific Islander	-	-	-	-
White	3	6	-	-
Two or More Races or Ethnicities	-	-	-	-
LGBTQ+	-	-	-	-
Did not Disclose Demographic Background	-	-	-	-

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 the amount of our beneficially owned common stock held by the stockholder or group of stockholders making the recommendation as of the date such recommendation is made, to Blueprint Medicines Corporation, Attention: Nominating and Corporate Governance Committee, 45 Sidney Street, Cambridge, Massachusetts 02139. Assuming that appropriate biographical and background material has been provided on a timely basis, the nominating and corporate governance committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others. If the board determines to nominate a stockholder-recommended candidate and recommends his or her election, then his or her name will be included in our proxy card for the next annual meeting.

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

Our Corporate Social Responsibility Efforts

At Blueprint Medicines, we believe that when we work together, the impact of our collective efforts can make a profound impact on patients, our employees and the communities where we live and work. We understand the importance of expanding our corporate citizenship and sustainability efforts and we are committed to making a meaningful difference by leading with our core values.



We view our corporate responsibility efforts and environmental, social and governance, or ESG, efforts as a journey. In 2022, we plan to issue our first Corporate Responsibility Report. The report will be guided by the Sustainability Accounting Standards Board (SASB) and UN Sustainable Development Goals (UN SDGs) and will be informed by topics that are important to the patients, families and healthcare providers we serve, as well as our employees, investors and community.

ESG matters are coordinated by corporate affairs and overseen by our management and our nominating and governance committee. Our ESG committee, formed in late-2021 and composed of subject matter experts from investor relations, patient advocacy, human resources, legal and compliance, research and development, supply chain, commercial, and facilities, will convene throughout the course of each year to discuss our ESG strategy and reporting. We plan to report ESG matters to our nominating and governance committee at least annually or as relevant matters occur.

Patients and Families

Putting patients first is our primary core value, and we are committed to providing patients with support and access to our therapies. To better support patients and to bring meaningful therapies to the community, we engage with and support patients through a broad range of activities such as our advisory patient council, which helps us incorporate the patient voice throughout the drug development process, the creation and distribution of patient education programs and resources which drive awareness and understanding of cancer and hematologic disease, and our work with patient advocacy organizations supporting their ability to impact communities globally. Through our patient assistance program, YourBlueprintTM, we support patient access through the treatment journey. In addition, we provide global pre-approval access programs for eligible patients.

Human Capital Management and Equity Diversity and Inclusion

We are committed to creating an environment where employees feel empowered to do their best work. We promote a culture of transparency, curiosity and diversity where our employees are encouraged to live by our core values.

We provide our employees with robust compensation packages, including competitive base pay, incentive compensation and equity programs, and provide a broad range of benefits, including 401(k) plan (pension outside the U.S.), healthcare and insurance benefits, paid time off, paid family and medical leave, flexible work environment and schedules, and various innovative health and wellness programs. In addition, we are committed to the continuing education and professional development of our employees, who

can take advantage of various learning opportunities, such as our mentorship program, skill builder accelerator programs, and various training programs. We also support a range of internal and external career development, mentorship, and networking programs focusing on communities of color, women, and the LGBTQ+ community.

At Blueprint Medicines, we support efforts to promote equity, diversity and inclusion, or ED&I, through activities and programs that increase understanding and celebrate the diversity of our employees and the communities we serve, as well as direct efforts to recruit, retain, and develop a diverse workforce. Our efforts are driven by an employee-led ED&I committee, with support and guidance from our executive team. Recent educational and culture-building ED&I initiatives have included an employee storytelling event centered on social justice, quarterly "ED&I Circle" discussion forums, company-wide unconscious bias trainings, and an educational program focused on environmental disparities related to racial and economic inequality in Boston area communities. In addition, we partnered with two non-profit organizations, Life Science Cares' Project Onramp and American Chemical Society's Project Seed, to expand the diversity and community impact of our intern program, resulting in the majority of our 2021 intern class coming from traditionally underrepresented groups in the biopharmaceutical industry. In 2021, we were recognized by Energage with a 2021 Top Workplaces Culture Excellence - DE&I Practices Award.

Environmental Impact

Blueprint Medicines is committed to operating our business in a sustainable manner and limiting our environmental impact. Our Green Team coordinates internal educational seminars to raise awareness and provide resources on environmental issues. We have also sponsored waste reduction programs including composting and recycling efforts. We provide commuter benefits, including bike-to-work and public transportation subsidies, to help reduce carbon emissions.

EXECUTIVE OFFICERS

Certain information regarding our executive officers who are not also directors, as of April 4, 2022, is set forth below. Information regarding Kathryn Haviland, as of April 4, 2022, is set forth above in the section titled "Board Leadership Structure".

Name	Age	Position(s)
Percy Carter, Ph.D.	51	Chief Scientific Officer
Debra Durso-Bumpus	52	Chief People Officer
Becker Hewes, M.D.	56	Chief Medical Officer
Ariel Hurley	48	Vice President, Finance and Controller
Michael Landsittel	50	Chief Financial Officer
Philina Lee, Ph.D.	45	Chief Commercial Officer
Tracey L. McCain, Esq.	54	Chief Legal and Compliance Officer
Christopher K. Murray, Ph.D.	59	Senior Vice President, Technical Operations
Fouad Namouni, M.D.	53	President, Research and Development
Christina Rossi	46	Chief Operating Officer

Percy Carter, Ph.D., has served as our chief scientific officer since May 2021. Dr. Carter previously served as chief scientific officer at FibroGen, Inc. from September 2020 and May 2021. From June 2019 and September 2020, he served as global head of discovery sciences at Janssen Pharmaceuticals, Inc., a division of Johnson & Johnson, where he led more than 700 employees comprising several key research and discovery functions, and drove the synthetic discovery strategy in collaboration with partners across various therapeutic areas. From August 2011 to May 2019, Dr. Carter held roles of increasing responsibility in drug discovery, covering all therapeutic areas, drug platforms and stages of discovery at Bristol-Myers Squibb Company, or BMS, including serving as senior vice president and head of discovery between November 2018 and May 2019. Prior to his experience at BMS, he was senior research scientist in chemical and physical sciences at DuPont Pharmaceuticals Company, until it was acquired by BMS in 2001. Dr. Carter is an inventor or co-inventor on more than 28 U.S. patents, and has authored or co-authored numerous peer-reviewed publications. Dr. Carter received an A.B. in Chemistry from Dartmouth College and a Ph.D. in Organic Chemistry from Harvard University. In addition, he received an M.B.A. from Massachusetts Institute of Technology.

Debra Durso-Bumpus has served as our chief people officer since February 2020. She has been with us since April 2015 and previously served as our senior vice president, human resources. With more than fifteen years of experience focused on leading business's through expediential growth and complexity, building organizational capabilities, and shaping high performance culture, Ms. Durso-Bumpus has operated in a number of leadership positions. Prior to joining our company, she served as the interim head of human resources at Cubist Pharmaceuticals, Inc. or Cubist, where she was appointed to lead the post-merger human resource integration following the acquisition of Cubist by Merck & Co., from January 2015 to April 2015. Between April 2009 and the acquisition, Ms. Durso-Bumpus served as the global head for talent management and organizational development at Cubist, where she was primarily responsible for building talent and leadership strength and depth while managing growth on a global scale to create a cohesive and highly differentiated culture. Ms. Durso-Bumpus serves as a member of the board of directors for the Massachusetts Biotechnology Education Foundation, a nonprofit organization committed to supporting science and biotechnology education in Massachusetts through school programs, workforce training and lifelong learning. Ms. Durso-Bumpus received a B.S. in business management from Bentley University

Becker Hewes, M.D. has served as chief medical officer since January 2021. Dr. Hewes previously served as our senior vice president of clinical development from May 2020 to January 2021. Prior to joining us, he served as chief medical officer of Repertoire Immune Medicines, Inc. from February 2017 to May 2020, where he built their multidisciplinary clinical and biomarker team and advanced its immuno-oncology programs into clinical development. From June 2013 to February 2017, Dr. Hewes served as executive director of translational clinical oncology at the Novartis Institutes for BioMedical Research where he led clinical development and translational medicine teams. Prior to joining Novartis, he worked at AstraZeneca PLC, Genzyme Corporation and Wyeth Pharmaceuticals Inc. where he led registration programs. Dr. Hewes brings 20 years of industry and clinical experience in oncology and hematology to our company. Dr. Hewes holds an M.D. from the Georgetown University of Medicine and a B.S. from Vanderbilt University.

Ariel Hurley has served as our vice president, finance and controller since February 2019. Ms. Hurley previously served as our Senior Director, Controller from January 2016 to December 2018 and as our Director, Controller from September 2014 to December 2015. Prior to joining us, Ms. Hurley served in various accounting and finance roles at Millennium Pharmaceuticals, Inc. (now a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited) from December 2005 to September 2014. Ms. Hurley began her career at Deloitte & Touche, LLP. She earned her certified public accountant license in Massachusetts. Ms. Hurley received a B.S. in accounting from Providence College.

Michael Landsittel has served as our chief financial officer since January 2019. Mr. Landsittel previously served as our vice president, finance from February 2016 to January 2019 and as our senior director, finance from September 2014 to February 2016. Prior to joining our company, Mr. Landsittel served as senior director, finance at Algeta ASA from October 2012 to July 2014, as

director, finance at Infinity Pharmaceuticals, Inc. from March 2012 to October 2012 and held various business development and strategic planning roles of increasing responsibility at Genzyme Corporation from August 2002 to March 2012. 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.

Philina Lee, Ph.D., has served as our chief commercial officer since April 4, 2022. Dr. Lee previously served as our senior vice president, head of portfolio strategy and program management from January 2021 to April 2022, our vice president, marketing and precision medicine from August 2019 to December 2020, our vice president, commercial strategy and operations from July 2017 to August 2019 and as our senior director, new product strategy and development from August 2014 to June 2017. Previously, Dr. Lee held product strategy and marketing roles of increasing responsibility at Algeta ASA, Sanofi S.A. and Genzyme Corporation. Dr. Lee also serves on the board of Fusion Pharmaceuticals, as a member of the nomination and governance and the research and development committees. Dr. Lee earned a B.S. in biochemistry from the University of Alberta, and a Ph.D. in cell biology from the Massachusetts Institute of Technology.

Tracey L. McCain, Esq. has served as our executive vice president and chief legal officer since September 2016 and as our chief compliance officer since June 2017. Prior to joining us, from January 2016 to September 2016, Ms. McCain served as senior vice president and head of legal of Sanofi Genzyme, a global business unit of Sanofi S.A., or 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 has served as a member of the board of directors of Kiniksa Pharmaceuticals, Ltd. since 2018 and currently serves on its audit committee. She has also served as a member of the board of directors of ImmunoGen, Inc. since December 2021 and currently serves on its audit committee. Ms. McCain holds a B.A. from the University of Pennsylvania with a major in political science and a J.D. from Columbia University School of Law.

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

Fouad Namouni, M.D. has served as our president, research and development, since September 2020. Prior to joining us, Dr. Namouni served in leadership roles at Bristol-Myers Squibb Company since 1999. Most recently, he served as senior vice president and head of oncology development from August 2016 to April 2020 with the responsibility for driving product development plans across a portfolio of drug candidates. Previously, Dr. Namouni served as head of global medical affairs from September 2015 to September 2017 and head of development for Opdivo (nivolumab) and Yervoy (ipilimumab) from January 2011 to September 2015. Dr. Namouni has served as a member of the board of directors of Aprea Therapeutics, Inc. since June 2020. Dr. Namouni brings more than 20 years of oncology and cancer immunotherapy drug development expertise. He holds an M.D. from the University of Annaba Medical School in Algeria and a Pediatrics degree from Université Rene Descartes in Paris, France. Additionally, Dr. Namouni has received a Pediatric Oncology and Hematology degree and a M.S. in clinical and experimental pharmacology from Université Paris-Sud in France.

Christina Rossi has served as our chief operating officer since April 4, 2022 and previously served as our chief commercial officer from October 2018 to April 2022. Prior to joining us, from January 2015 to October 2018, Ms. Rossi served as the Multiple Sclerosis business unit head, North America, at Sanofi Genzyme, a global business unit of Sanofi S.A. In this role, she was responsible for all aspects of the financial performance of Sanofi Genzyme's multiple sclerosis franchise and increased market share for existing products, led the launch of new therapies and optimized operations to accelerate patient access. Previously, Ms. Rossi served as vice president, Multiple Sclerosis Sales at Sanofi Genzyme form May 2014 to December 2015 and vice president, Multiple Sclerosis Patient and Provider Services at Sanofi Genzyme from June 2012 to May 2014. Prior to joining Sanofi Genzyme, Ms. Rossi served in various roles at Biogen, Inc., or Biogen, including head, commercial strategy for Eidetica Biopharma GmbH, Biogen's biosimilar-focused venture, and U.S. brand leader for TYSABRI® (natalizumab). In addition, Ms. Rossi consulted in the healthcare practice at the Boston Consulting Group. Ms. Rossi holds a B.S. in biology, cum laude, from Duke University and an M.B.A. from Harvard Business School.

EXECUTIVE COMPENSATION

Leadership Transitions

Effective April 4, 2022, Kathryn Haviland became our president and chief executive officer as the successor to Jeffrey Albers, who transitioned into a new role as our executive chairman on that date. Our board of directors' selection of Ms. Haviland as our new president and chief executive officer was the culmination of a thoughtful, long-term succession planning process that was led by Mr. Albers and our board of directors and purposefully designed to drive the company's continued success, ensure continuity, and empower our strong executive team. In connection with Ms. Haviland's appointment as president and chief executive officer and Mr. Albers' transition to executive chairman, after considering market data, internal equity, advice from its independent compensation consultant and other factors, the compensation committee adjusted the compensation of these two individuals. For more information, see "Compensation Discussion and Analysis – Employment, Severance and Change-in-Control Arrangements" below.

Assuming that Mr. Albers is reelected as a director at the 2022 annual meeting, Mr. Albers will continue to serve as chairman of the board of directors. See the discussion above under "Corporate Governance – Board Leadership Structure," for more information about our board of directors' determination to maintain a governance structure that includes an executive chairman and a separate lead independent director, which is intended to ensure continuity and strong and effective leadership at this time.

Compensation Discussion and Analysis

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

For 2021, our named executive officers were as follows:

- Jeffrey W. Albers, who served as our president and chief executive officer until April 4, 2022;
- Michael Landsittel, our chief financial officer;
- Fouad Namouni, M.D., our president, research and development;
- Kathryn Haviland, who served as our chief operating officer until April 4, 2022; and
- Percy Carter, Ph.D., our chief scientific officer, whose employment began with us on May 19, 2021.

Executive Summary

We are a global precision therapy company that is inventing life-changing medicines for people with cancer and blood disorders. Applying an approach that is both precise and agile, we create therapies that selectively target genetic drivers, with the goal of staying one step ahead across stages of disease. Since 2011, we have leveraged our research platform, including expertise in molecular targeting and world-class drug design capabilities, to rapidly and reproducibly translate science into a broad pipeline of precision therapies. Today, we are delivering our approved medicines, AYVAKIT®/AYVAKYT® (avapritinib) and GAVRETO® (pralsetinib), to patients in the U.S. and Europe, and we are globally advancing multiple programs for systemic mastocytosis, or SM, lung cancer and other genomically defined cancers, and cancer immunotherapy. Our drug discovery approach combines our biological insights with our proprietary compound library and chemistry expertise to design highly selective and potent precision therapies, with the goal of delivering significant and durable clinical benefit to patients based on the genetic driver of their disease. This uniquely targeted, scalable approach is designed to empower the rapid design and development of new treatments and increase the likelihood of success. In addition, our business model integrates our research engine with robust clinical development and commercial capabilities in oncology and hematology to create a cycle of innovation.

In 2021, as a fully-integrated, global precision therapy company focused on discovering, developing and commercializing a portfolio of precision therapies, we made substantial progress towards our vision to bring life-changing precision therapies to as many patients with cancer and hematologic disorders as possible. We achieved a number of significant milestones in 2021, including the following, towards our corporate goals described below in this Compensation Discussion and Analysis section.

- Build on our fully-integrated global company, expanding indications and strategic partnerships to address more patients in need
 - In March 2021, we announced that the European Medicines Agency, or EMA, has validated our Type II variation marketing authorization
 application for AYVAKYT for the treatment of advanced systemic mastocytosis, or SM.
 - In June 2021, the U.S. Food and Drug Administration, or FDA, approved AYVAKIT for the treatment of adult patients with advanced SM, including aggressive SM, SM with an associated hematological neoplasm and mast cell leukemia.
 - On July 28, 2021, we announced a three-year strategic research collaboration with The University of Texas MD Anderson Cancer Center focused
 on accelerating development of BLU-222, an investigational precision therapy designed to target cyclin-dependent kinase 2, or CDK2.
 - We received, via our collaboration with Roche, a conditional marketing authorization by the European Commission for GAVRETO for the
 treatment of adults with RET fusion-positive non-small cell lung cancer, or NSCLC, not previously treated with a RET inhibitor.
 - On November 9, 2021, we announced an exclusive collaboration and license agreement with Zai Lab Limited for the development and
 commercialization of BLU-945 and BLU-701 for the treatment of patients with epidermal growth factor receptor, or EGFR, driven NSCLC
 in Greater China, including mainland China, Hong Kong, Macau and Taiwan.
 - On December 30, 2021, we announced the completion of our acquisition of Lengo Therapeutics Inc., expanding our lung cancer pipeline with BLU-451 (formerly LNG-451), an oral precision therapy in development for the treatment of NSCLC in patients with EGFR exon 20 insertion mutations
- Leverage our culture of thoughtfulness and urgency to expand and deepen our pipeline of transformative therapies
 - We initiated the HARBOR trial, a randomized, double-blind, placebo-controlled Phase 2/3 trial of BLU-263 in non-advanced SM.
 - We initiated the global Phase 1/2 trial of BLU-945 in patients with treatment-resistant EGFR-driven NSCLC.
 - We treated the first patient in the Phase 1/2 HARMONY trial of BLU-701 in EGFR-driven NSCLC.
- Operate with a focus on strong cultural and financial health and integrity to best enable bringing Blueprint therapies to patients in need
 - As of December 31, 2021, our cash, cash equivalents and marketable securities were \$1,034.6 million, as compared to \$1,549.7 million as of December 31, 2020.
 - Revenues for the year ended December 31, 2021 were \$180.1 million, including \$53.0 million of net product revenues from sales of AYVAKIT,
 \$4.7 million of net product revenues from sales of GAVRETO and \$122.4 million in collaboration revenues.
 - In April 2021, we announced that multiple presentations across our SM program reported at the AACR annual meeting focused on registrational PATHFINDER trial data of AYVAKIT in advanced SM, PIONEER Part 1 data highlighting the impact of AYVAKIT on skin manifestations of SM, and Phase 1 trial data for BLU-263.
 - In June 2021 we presented updated Phase 1/2 ARROW trial data during the 2021 American Society of Clinical Oncology, or ASCO, annual
 meeting demonstrating durable clinical benefits of GAVRETO in metastatic RET fusion-positive NSCLC and other advanced solid tumors.
 - In December 2021, we announced two Nature Medicine publications on the registration-enabling EXPLORER and PATHFINDER trials of AYVAKIT, highlighting its robust efficacy and safety datasets in advanced SM.
 - We maintained a high employee engagement rate based on survey results and a turnover rate that was significantly below the industry average.

As described in more detail below, based on the significant advances that we made on our 2021 corporate performance goals (including the overachievement on some goals balanced against the underachievement of others), upon the recommendation of our compensation committee, our board of directors determined that we achieved our 2021 corporate performance goals at 120.0%.

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

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

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

_	What We Do		What We Don't Do
7	Maintain an industry-specific and size-appropriate peer group for benchmarking compensation	×	Allow hedging or pledging without pre-approval by the Audit Committee Re-price stock options without prior stockholder approval
	Target compensation based on market norms		Provide significant perquisites to our executive officers
7	Deliver executive compensation primarily through variable, at-risk incentive pay	×	Provide supplemental executive retirement plans or special health and welfare benefits to our executive officers
	Set challenging corporate performance goals	\boxtimes	Provide tax gross-up payments for any change-of-control payments
7	Consult with an independent compensation advisor on compensation levels and practices		To race and grow up payments for any entange of control payments
7	Offer market-competitive benefits for executives that are consistent with the rest of our employees		
	Use double trigger change-in-control protection for our executive officers		
7	Cap annual cash incentive program payouts at 150% of the target payout level		
7	Maintain a clawback policy covering cash and equity incentive compensation paid to our executive officers		
7	Maintain an equity ownership policy for non-employee directors and our executive officers		
	2	21	

Compensation Objectives and Philosophy

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

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

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

- Base salaries: Our compensation committee generally targets base salaries at the 50th percentile of our peer group, as discussed below, and seeks
 to ensure that such salaries reflect each executive's level of experience, performance and responsibility and that such levels are competitive with
 those of other companies in our industry and region that compete with us for executive talent.
- Annual performance-based cash incentive compensation: Our compensation program links a substantial portion of our named executive officers' compensation to the achievement of scientific, business, organizational and operational goals such as our commercialization activities; progress in our clinical trials and research programs; key research and development achievements; maintaining the strong financial health of the company, including implementation of appropriate financing strategies; maintaining and establishing key strategic relationships; addition and development of internal competencies, including retention of high-performing employees; and achievement of desired financial metrics. Our compensation committee targets annual performance-based cash incentive compensation at the 50th percentile of our peer group and caps annual cash incentive program payouts in any given year at 150% of the target payout level.
- Equity incentive compensation: In addition, we provide a significant portion of our executive compensation in the form of stock options and restricted stock units, or RSUs, that vest over time, which we believe helps to retain our executives and aligns their interests with those of our stockholders by allowing them to participate in the longer term success of our company as reflected in the appreciation of our stock price. When determining equity incentive compensation for our named executive officers, our compensation committee considers a host of factors in comparison to our named peers, including the following: annual long-term incentive target values, annual equity awards expressed as a percent of total shares outstanding, total annual and cumulative dilution, the retentive value of outstanding awards and total equity ownership and the equity compensation practices of other companies in our industry that compete with us for talent. While the compensation committee generally targets the 65th percentile of our peer group, given the dynamic biopharmaceutical market, the compensation committee does not overemphasize any one perspective. Rather, the compensation committee takes a holistic perspective, further considering the factors enumerated above, the achievement of company goals and how that impacts total shareholder return, when determining actual award levels for the named executive officers.

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

Annual Say-on-Pay Vote on Executive Compensation

The compensation committee considered the results of the non-binding, stockholder advisory votes on the compensation of our named executive officers conducted at our 2021 annual meeting of stockholders, commonly referred to as a "say-on-pay" vote. As

reported in our current report on Form 8-K, filed with the SEC on June 4, 2021, approximately 98% of the votes cast on the proposal expressed support for the compensation program offered to our named executive officers as disclosed in last year's proxy statement. The compensation committee appreciated this support and believes it indicates that our stockholders are supportive of the current executive compensation structure and policies. As such, the committee made no changes to our executive compensation program as a result of the say-on-pay vote.

Further, our board of directors has elected to conduct the say-on-pay vote annually, thereby giving our stockholders the opportunity to provide feedback on the compensation of our named executive officers each year. We will be conducting our annual say-on-pay vote as described in Proposal 2 of this proxy statement at our 2022 annual meeting of stockholders. Our board of directors and our compensation committee will consider the outcome of the say-on-pay vote, as well as feedback received throughout the year, when making compensation decisions for our named executive officers in the future. Following our 2022 annual meeting, the next say-on-pay vote will be held at the 2023 annual meeting of stockholders.

Overview of Executive Compensation Process

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

Role of the Compensation Consultant. The compensation committee has the sole authority to retain, at our expense, one or more third-party compensation consultants to assist the compensation committee in performing its responsibilities. The compensation committee may terminate the services of the consultant if the compensation committee deems it appropriate. In 2021, the compensation committee utilized the services of Aon's Human Capital Solutions practice, a division of Aon plc, or Aon (formerly known as Radford), to assist it in fulfilling its responsibilities. Aon was retained exclusively by the compensation committee and has not been retained by management to perform any work for the company other than projects performed at the direction of the compensation committee. Aon provides analysis and recommendations regarding:

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

In addition, we subscribe to Aon's various global annual and specialized life sciences and general industry surveys on an ongoing basis. Aon advised the compensation committee on all of the principal aspects of executive compensation, including executive new hire compensation arrangements. Aon consultants attend meetings of the compensation committee, including executive sessions in which executive compensation issues are discussed, when requested to do so. Aon reports to the compensation committee and not to management, although it meets with management for purposes of gathering information for its analyses and recommendations. The compensation committee annually evaluates its engagement of compensation consultants, and selected Aon to advise with respect to compensation matters based on Aon's industry experience and reputation, which our compensation committee concluded give Aon useful context and knowledge to advise it. The compensation committee has assessed the independence of Aon pursuant to SEC and Nasdaq rules and concluded that no conflict of interest exists that would prevent Aon from independently advising the compensation committee.

Role of the Compensation Committee. The compensation committee works closely with Aon throughout the year to develop our executive compensation program and to align pay with performance, stockholder interests, and pay at our peer companies. Annual base salaries for the year, and annual performance-based cash incentives and equity incentive awards for all employees for the prior year are generally determined in the first quarter of the year based on company and individual performance of the prior year, as well as other factors, including compensation trends in the biopharmaceutical industry and among our benchmark peers.

Our compensation committee has delegated authority to our chief executive officer to make equity awards under our 2015 Plan to any new hire, or replacement or substitute hire of the company or its subsidiaries and existing employees of the company or any of its subsidiaries in connection with promotions, employee recognition or exceptional performance, in each case, subject to

certain limitations. In particular, our chief executive officer is not authorized to grant equity awards (i) to an employee who is a senior vice president (or above) or a direct report to the chief executive officer; (ii) to an employee who is an officer or director of the company or its subsidiaries and is subject to Section 16 of the Exchange Act; (iii) to an employee who is at the time of grant, or who is anticipated to become during the term of the applicable equity award, a "covered employee", as defined in Section 162(m)(3) of the Internal Revenue Code; (iv) to himself or herself; or (v) to any other person that our board of directors or compensation committee, respectively, may from time to time designate in writing as not being eligible to receive equity awards under the authority delegated to the chief executive officer. In addition, the number of shares underlying any equity awards granted by our chief executive officer must be within the range specified by our compensation committee for these awards, and the aggregate number of shares underlying equity awards that our chief executive officer may grant in any one calendar year or to any person in any one calendar year must be within specified limits established by our compensation committee. The exercise price of stock options must be equal to the closing price of our common stock on the Nasdaq Global Select Market on the date of grant, and all equity awards must have vesting terms consistent with those approved by our compensation committee. In addition, our chief executive officer is required to maintain a list of equity awards granted pursuant to such delegated authority and periodically report to our compensation committee regarding such awards.

With respect to any equity awards granted by our chief executive officer to new hires, our chief executive officer approves the awards in connection with such hires and provides that the awards are to be granted to the new hires on the first day of the calendar month following the date of such new hires' first date of regular employment. With respect to any equity awards granted by our chief executive officer to employees in connection with mid-year promotions, our chief executive officer approves the awards in connection with such promotions and provides that the awards are to be granted on July 1 of the applicable year.

Notwithstanding the delegation of authority to our chief executive officer to grant certain equity awards in connection with new-hires and promotions, our compensation committee approves all equity awards that are a) granted under the 2020 Plan or 2015 Plan and b) in connection with annual promotions as part of our annual compensation review process.

Defining and Comparing Compensation to Market Benchmarks

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

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

Based on these criteria, our peer group for 2021, referred to as our 2021 peer group, as approved by our compensation committee, was comprised of the following 20 companies:

ACADIA Pharmaceuticals Inc.	Biohaven Pharmaceutical Holding Company Ltd.	Intercept Pharmaceuticals, Inc.
Acceleron Pharma Inc.	bluebird bio, Inc.	Nektar Therapeutics
Agios Pharmaceuticals, Inc.	Deciphera Pharmaceuticals, Inc.	Sage Therapeutics, Inc.
Alkermes, Inc.	Exelixis, Inc.	Sarepta Therapeutics, Inc.
Alnylam Pharmaceuticals, Inc.	FibroGen, Inc.	Seagen Inc. (formerly Seattle Genetics, Inc.)
Amarin Corporation plc	Global Blood Therapeutics, Inc.	Ultragenyx Pharmaceutical Inc.
Amicus Therapeutics, Inc.	Immunomedics, Inc.	

The compensation committee believes the compensation practices of our peer group provide us with appropriate compensation benchmarks for evaluating the compensation of our named executive officers. Such information provides a solid reference point for making decisions and useful context. Notwithstanding the similarities of our peer group to our Company, due to the nature of our business, we compete for executive talent with many companies that are larger and more established than we are or that possess greater resources than we do, as well as with prestigious academic and non-profit institutions. Other considerations, including market factors, the experience level of the executive and the executive's performance against established corporate goals and individual objectives, may require that our compensation committee vary from its historic compensation practices or deviate from its general compensation philosophy under certain circumstances. We believe that the compensation practices of our 2021 peer group provided us with appropriate compensation benchmarks for evaluating the compensation of our named executive officers during 2021.

For purposes of compensation for 2022, our compensation committee, with the advice of Aon, examined our 2021 peer group in light of our continued growth throughout 2021, which we anticipate to continue in 2022, the stage of commercialization and development of our approved drug and clinical programs and changes in our market capitalization. With reference to market

capitalization, therapeutic area, stage of development, number of employees and other key business metrics, as well as whether the companies in our 2021 peer group suffered any clinical setbacks or experienced reduced growth, our compensation committee approved the following 17 companies as our 2022 peer group:

ACADIA Pharmaceuticals Inc.	Biohaven Pharmaceutical Holding Company Ltd.	Neurocrine Biosciences, Inc.*
Acceleron Pharmaceuticals Inc.#	CRISPER Therapeutics AG*	Sage Therapeutics, Inc.
Agios Pharmaceuticals, Inc.	Exelixis, Inc.	Sarepta Therapeutics, Inc.
Alkermes, Inc.	Halozyme Therapeutics, Inc.*	Ultragenyx Pharmaceutical Inc.
Alnylam Pharmaceuticals, Inc.	Ionis Pharmaceuticals, Inc.*	United Therapeutics Corporation*
Amicus Theraneutics Inc	Nektar Therapeutics	

^{*} addition to 2022 peer group from the 2021 peer group

Based on the considerations described above, six companies that were in our 2021 peer group were not included in our 2022 peer group — bluebird bio, Inc., Deciphera Pharmaceuticals, Inc., FibroGen, Inc., Global Blood Therapeutics, Inc., Intercept Pharmaceuticals, Inc. and Seagen, Inc.

Executive Compensation Elements

The primary elements of our executive compensation program are base salary, annual performance-based cash incentives and equity incentive awards. Our compensation committee uses sound judgment to allocate long-term and short-term compensation for our named executive officers, in alignment with our pay-for-performance philosophy and the long-term interests of stockholders. After reviewing information provided by our compensation consultant and other relevant data, our compensation committee exercises its judgment to determine what it believes to be the appropriate level and mix of the various compensation components. We generally strive to provide our named executive officers with a balance of short-term and long-term incentives to encourage consistently strong performance. Ultimately, the objective in allocating between long-term and currently paid compensation is to ensure adequate base compensation to attract and retain talent, while providing incentives to maximize long-term value for our company and our stockholders. Therefore, we provide cash compensation in the form of base salary to meet competitive salary norms and reward performance on an annual basis and in the form of incentive compensation to incent and reward performance based on specific annual goals. To further focus our executives on longer-term performance, we rely upon equity-based awards that vest over a meaningful period of time, thereby reinforcing stockholder value creation.

In addition, we provide our executives with benefits that are available to all employees, including medical, vision and dental insurance; life and disability insurance; medical and dependent care flexible spending accounts; a 401(k) plan; and an opportunity to invest in our company pursuant to our employee stock purchase plan. We offer our executives severance benefits upon an involuntary or constructive termination, as we believe such post-employment compensation protections are appropriate in light of similar benefits available to executive officers at companies in our peer group. We also offer our executives additional severance benefits in connection with change-in-control situations. We believe that reasonable and competitive change-in-control payments and benefits are an important part of an executive compensation program to attract and retain senior executives. We also believe such payments and benefits are in the best interests of our stockholders because they incentivize senior executives to continue to strive to achieve stockholder value in connection with change-in-control situations, particularly where the possibility of a change-in-control and the related uncertainty may lead to the departure or distraction of senior executives to the detriment of our company and our stockholders.

Base Salary

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

In February 2021, our compensation committee approved salary increases for each of our named executive officers (other than Dr. Carter, who joined the company in May 2021) based on a review of market data provided by Aon, the current compensation levels of our named executive officers, the company's performance against the 2020 corporate performance goals and, in the case of

[#] Acceleron Pharmaceuticals Inc. was subsequently removed from our 2022 peer group when it was acquired in November 2021

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

	2020	2021	
Name	Base Salary (\$)	Base Salary (\$)	Increase (%)
Jeffrey W. Albers	645,000	745,000	15.5%*
Michael Landsittel	379,575	435,000	14.6%*
Fouad Namouni, M.D. (1)	550,000(1)	555,899	1.1%
Kathryn Haviland	460,944	501,277	8.8%
Percy Carter, Ph.D. (2)	N/A	550,000(2)	N/A

- *Includes a market adjustment to align with the 50th percentile of our peer group in addition to merit increase. The base salary of Messrs. Albers and Landsittel were consistently below the 50th percentile of our peer group in prior years notwithstanding salary adjustments in previous years to bring their base salary closer to the 50th percentile of our peer group
- (1) Dr. Namouni joined the company as our president, research and development, in September 2020 and was eligible to receive a pro-rata merit increase in base salary for the year ending December 31, 2021.
- (2) Dr. Carter joined the company as our chief scientific officer in May 2021. This amount represents his annualized base salary for the year ended December 31, 2021, which was determined based on the negotiated terms of his offer of employment.

Annual Performance-Based Cash Incentives

Our board of directors has adopted a senior executive cash incentive bonus plan, or the executive bonus plan, which provides for cash bonus payments to eligible executives based upon the attainment of performance targets established by the compensation committee for each executive during the first quarter of the applicable fiscal year. The payment targets are related to individual performance measures or objectives (other than for our chief executive officer), which we refer to as individual performance goals, and corporate financial and operational measures or objectives, which we refer to as corporate performance goals. Other than for our chief executive officer whose target award opportunity is solely based on corporate performance goals, the target award opportunity for each of our named executive officers is based 25% on individual performance goals and 75% on corporate performance goals. We believe this executive bonus plan provides incentive that motivates and rewards achievement of performance goals that directly correlates to enhancement of stockholder value, consistent with our compensation philosophy.

Each executive officer who is selected to participate in the executive bonus plan has a target award opportunity set for each performance period. Subject to the rights contained in any agreement between the executive officer and the company, an executive officer must be employed by the company on the bonus payment date to be eligible to receive a bonus payment. The executive bonus plan also permits the compensation committee to approve additional bonuses to executive officers in its sole discretion, but the compensation committee did not approve any such additional bonuses in 2021. Each of our named executive officers is eligible to participate in the executive bonus plan. Our compensation committee caps annual cash incentive program payouts in any given year at 150% of the target payout level.

Below is the list of the company's 2021 corporate performance goals and relative weighting assigned to each goal, which were approved by our board of directors and considered by our executive leadership team and compensation committee in their respective assessment of the company's achievement of corporate performance goals for 2021:

- Build on our fully-integrated global company, expanding indications and strategic partnerships to address more patients in need [relative weighting: 35%]
 - Obtain avapritinib US FDA approval in line-agnostic advanced SM*
 - Receive avapritinib EU CHMP positive opinion in advanced SM*
 - Fully enroll Part 2 of PIONEER trial for avapritinib*
 - First patient dosed in HARBOR trial for BLU-263*
 - Execute additional collaborations in line with the company's overall portfolio and commercial strategy*
- Leverage our culture of thoughtfulness and urgency to expand and deepen our pipeline and external engagements [relative weighting: 30%]
 - File an IND for BLU-945*
 - Complete certain enrollment goals for BLU-945-1101*
 - File an IND for BLU-701 and first patient dosed in Phase 1 study*
 - Nominate a CDK2 development candidate*

- File an IND for our CDK2 program*
- Initiate a certain number of research programs*
- Operate with a focus on strong cultural and financial health and integrity to best enable our efforts to bring our Company's therapies to patients in need [relative weighting: 35%]
 - Achieve specified revenue targets in global commercial sales and in milestones or other revenue and specified operating expense by the end of 2021*
 - Support a certain number of publications, scientific/clinical presentations, oral presentations a major meetings*
 - Foster a differentiated culture that facilitates organizational effectiveness measured by the engagement survey results, achieving a specified favorability rating across resource allocation and collaboration metrics, by the end of the fourth quarter of 2021*
 - Engage a certain percentage of employees in at least one ED&I initiative or activity and ensure at least a certain percentage of candidates interviewed for positions at specified levels are from underrepresented groups by the end of the fourth quarter of 2021*
 - * These corporate performance goals include highly sensitive competitive data, including pre-clinical, clinical, regulatory and financial targets. We do not disclose the specific portions of these goals because we believe that such disclosure would result in competitive harm to us. We purposely set these goals at challenging levels. Revealing certain elements of these goals could potentially reveal insights about our pre-clinical, clinical, regulatory and strategic plans or objectives that our competitors or potential collaborators could use against us.

Based on the recommendation of our compensation committee (including the overachievement on some goals balanced against the underachievement of others), our board determined that our company achieved the 2021 corporate performance goals at 120.0%, as set forth in the table below.

2021 Corporate Goals	Relative Weighting	Assessment of Actual Achievement for 2021 (% of Target Award)	Weighted Performance
Build on our fully-integrated global company, expanding indications and strategic partnerships to address more patients in need	35.0%	126%	44%
Leverage our culture of thoughtfulness and urgency to expand and deepen our pipeline of transformative therapies	30.0%	127%	38%
Operate with a focus on strong cultural and financial health and integrity to best enable bringing Blueprint therapies to patients in need	35.0%	109%	38%
Total	100.0%		120%

The individual objectives in 2021 assigned to our named executive officers other than our chief executive officer were as follows:

- Michael Landsittel Mr. Landsittel was assigned objectives related to (1) evolving finance and facilities functional capabilities and processes to meet the needs of our company as we transition to a fully integrated, global company, including the oversight of near and longer-term capital strategy to support pipeline expansion, business development capacity, achievement of the overall financial health for our company and the development and implementation of a long-term operating model following COVID-19 and (2) continuing to develop a strong leadership both internally and externally. For 2021, the compensation committee determined that Mr. Landsittel achieved 119% of his individual objectives.
- Fouad Namouni, M.D. Dr. Namouni was assigned objectives related to (1) building an end-to-end integrated research and development organization
 and pipeline, including promoting emerging leaders within the research and development function internally and leveraging external innovation to
 diversify our pipeline and (2) building both external and internal visibility and engagement with key stakeholders. For 2021, the compensation
 committee determined that Dr. Namouni achieved 120% of his individual objectives.
- Kathryn Haviland Ms. Haviland was assigned objectives related to (1) driving sustainable growth at our company, including efforts on implementing a
 new governance model by mid-year, leveraging business development

- opportunities, and working with technical operations leadership to define long term strategy and build effective leadership with the group and throughout the organization by year end and (2) building additional leadership skills for CEO readiness. For 2021, the compensation committee determined that Ms. Haviland achieved 125% of her individual objectives.
- Percy Carter, Ph.D. Dr. Carter was assigned objectives related to (1) expanding and advancing our pipeline and platform, including establishing the
 strategy to diversify the platform and identify a new technology to achieve it, meeting discovery stage pipeline goals and identifying at least one key
 partnership to support pipeline diversification and (2) increasing internal and external profile through hiring, active stakeholder management and
 engagement with our ED&I committee. For 2021, the compensation committee determined that Dr. Carter achieved 115% of his individual objectives.

Based on company and individual performance, the compensation committee approved the following 2021 cash incentive payments for each of our named executive officers:

Name	Target Award (% of Base Salary)	Actual Cash Incentive Payment (\$)	Cash Incentive Payment (% of Target Award)
Jeffrey W. Albers	70%(1)	625,800	120%
Michael Landsittel	45% (1)	232,453	119%
Fouad Namouni, M.D.	45%	300,185	120%
Kathryn Haviland	45%	273,509	121%
Percy Carter, Ph.D.	45% (2)	182,221(2)	119%

- (1) For each of Messrs. Albers and Landsittel, such individual's target award percentage increased by 5% relative to the target award percentage for 2021 to align with the 50th percentile of our peer group.
- (2) Dr. Carter joined the company as our chief scientific officer in May 2021. The actual cash incentive payment he received was prorated on a monthly basis. Under the terms of Dr. Carter's employment agreement, he was eligible to receive a pro-rate bonus for the year ended December 31, 2021.

Equity Incentive Awards

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 and RSUs.

Equity compensation represents the largest at-risk component of our named executive officers' compensation arrangements. We believe that it is appropriate to align the interests of our named executive officers with those of our stockholders to achieve and sustain long-term stock price growth. For employees at or above the vice president level, including our executive officers, our compensation committee granted a combination of stock options and RSUs in connection with their annual equity awards at a fixed ratio. The compensation committee structured the mix of equity vehicles and the relative weight assigned to each type of award to motivate stock price appreciation over the long term through stock options, which deliver value only if the stock price increases, and to ensure some amount of value delivery through the RSUs, which are complementary because they have upside potential but deliver some value even if the stock price does not go up, while also reinforcing an ownership culture and commitment to us. We also expect to generally grant stock options and RSUs to executive officers in the form of initial grants and on an annual basis in subsequent years. None of our named executive officers are currently party to an employment agreement that provides for an automatic equity award.

Any initial equity awards granted to executive officers in connection with the commencement of their employment are typically granted on the first day of the calendar month following the date of such new hires' first date of regular employment, and any annual equity awards granted to executive officers are typically granted in the first quarter of the year following the applicable performance period. Any stock options granted to our executive officers will have an exercise price equal to the closing price of our common stock as reported on the Nasdaq Global Select Market on the date of grant, will have time-based vesting and will expire ten years after the date of grant. The initial stock options granted to executive officers upon the commencement of their employment vest as to 25% of the shares underlying the option on the first anniversary of the grant date and as to an additional 1/48th of the shares underlying the option monthly thereafter, subject to the executive officer's continued employment. The annual stock options granted to executive officers vest as to 1/48th of the shares underlying the option on the one-month anniversary of the grant date and as to an additional 1/48th of the shares underlying the option monthly thereafter, subject to the executive officer's continued employment. Upon a termination of employment, vesting for any stock options granted to executive officers will cease and exercise rights will

generally cease three months thereafter. Each RSU granted to our executive officers will have time-based vesting and will entitle the executive officer to one share of our common stock if and when the RSU vests. Any initial RSUs granted to executive officers upon the commencement of their employment and any annual RSUs granted to executive officers vest as to 25% of the shares underlying the RSU award on the first anniversary of the grant date and as to an additional 25% of the shares underlying the RSU award annually thereafter, subject to the executive officer's continued employment. Vesting for any RSUs granted to executive officers will cease upon termination of employment. In specified termination and change-in-control circumstances, equity awards held by our named executive officers are subject to accelerated vesting. See "—Severance and Change-in-Control Benefits" below for further information.

In determining the size of the equity awards to our named executive officers, our compensation committee, with assistance from Aon, considers our company performance, individual performance, the potential for enhancing the creation of value for our stockholders, the company's broader organizational equity needs and overall dilution, as well as industry and peer group benchmark data. We evaluate our equity award program on an annual basis to ensure that it appropriately links to our long-term performance by aligning the interests of our executives and our stockholders, remains competitive with industry and peer benchmarks and is consistent with our overall equity needs and dilution levels.

In February 2021, our compensation committee granted stock options and RSUs to our named executive officers (other than Dr. Carter, who joined the company in May 2021) in the amounts set forth in the table below, generally aligning competitive equity award grants with the 65th percentile of our peer group. In connection with Dr. Carter's commencement of employment, our compensation committee granted stock options and RSUs to Dr. Carter, in the amounts set forth in the table below.

Name	Option Award (# shares)	(# shares)
Jeffrey W. Albers	80,000	40,000
Michael Landsittel	26,125	13,062
Fouad Namouni, M.D.	26,125	13,062
Kathryn Haviland	26,125	13,062
Percy Carter, Ph.D. (1)	39,200	21,843

(1) Dr. Carter joined the company as our chief scientific officer in May 2021. Under the terms of Dr. Carter's employment agreement, Dr. Carter was granted a stock option to purchase 39,200 shares of our common stock and 21,843 RSUs effective as of June 1, 2021. The amounts of Dr. Carter's new hire equity awards were determined by our compensation committee with assistance from Aon based on benchmarks from our 2021 peer group and arms-length negotiations.

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

401(k) Plan. We maintain a 401(k) plan that is intended to qualify under Section 401(k) of the Internal Revenue Service Code of 1986, as amended, or the Internal Revenue Code. In general, all of our employees, including our named executive officers, are eligible to participate in the 401(k) plan. Under the 401(k) plan, employees may elect to reduce their current compensation by up to the statutorily prescribed annual limit. We currently match 100% of the first 2% contributed to the plan and 50% of the next 4% of compensation contributed to the plan. Matching contributions are 100% vested immediately. Matching contributions made to each of our named executive officers are included in the "2021 Summary Compensation Table" below.

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

Perquisites. We do not provide perquisites or personal benefits to our named executive officers other than in connection with relocation assistance for new hires on a limited basis.

No Tax Gross-ups. We do not provide for any tax gross-up payments to our named executive officers other than in connection with the tax protection of certain relocation expenses.

Other Compensation Policies and Practices

Clawback Policy. Our clawback policy covers incentive compensation paid to our executive officers, or covered executives. The policy provides that if we are required to prepare an accounting restatement due to our material non-compliance with any financial reporting requirement and intentional misconduct by a covered executive, our compensation committee may require the covered executive to repay to us any excess compensation received by the covered executive during the 12-month period preceding the publication of such restatement. For purposes of this policy, excess compensation means annual cash bonus and equity incentive

compensation that is in excess of the amount such covered executive would have received, if the annual cash bonus and/or equity incentive compensation had been determined wholly or in part based on the restated financial reporting measures.

Stock Ownership Guidelines. In December 2020, our board of directors adopted stock ownership guidelines designed to ensure that our directors and senior executive officers are focused on both short- and long-term objectives and to better align their interests with other stockholders.

The guidelines provide that each of our chief executive officer and other named executive officers should achieve the ownership level associated with his or her position within five years from the date of the appointment as the chief executive officer or designation as a named executive officer, as the case may be. Each non-employee director is required to achieve the ownership level required for non-employee directors within five years from the date of his or her initial election to our board. The guidelines are determined in comparison to base salary as follows.

Named Executive Officer	Applicable Multiple
Chief Executive Officer	3x base salary
Other named executive officers	1x base salary
Non-employee directors	3x annual cash retainer

For the purpose of determining stock ownership levels, we include shares underlying restricted stock and restricted stock units (whether or not vested) and shares underlying "in-the-money" vested stock option awards. As of December 31, 2021, our chief executive officer and other named executive officers and our non-employee directors had each satisfied the requirements of our stock ownership guidelines.

Anti-Hedging and Pledging Policy. Our insider trading policy expressly prohibits all of our employees, including our named executive officers, as well as our directors, from engaging in speculative transactions in our stock, including buying our securities on margin, borrowing against our securities held in a margin account, engaging in short sales of our securities, and buying or selling derivatives on our securities. Our insider trading policy generally prohibits all of our employees, including our named executive officers, as well as our directors, from pledging our securities as collateral for a loan, other than as may be allowed in certain exceptional and limited circumstances, with prior approval of our audit committee. To date, no such requests have been made or approved.

Tax and Accounting Considerations

We account for equity compensation paid to our employees under the rules of the Financial Accounting Standards Board Accounting Standards Codification Topic 718, or FASB ACS Topic 718, which rules require us to estimate and record an expense over the service period of any such award. Accounting rules also require us to record cash compensation as an expense at the time the obligation is accrued. To date, these accounting requirements have not impacted our executive compensation programs and practices.

Prior to January 1, 2018, when the Tax Cuts and Jobs Act of 2017, or the Tax Act, became effective, Section 162(m) of the Internal Revenue Code, or Section 162(m), generally limited to \$1 million the deduction that a public company could claim in any tax year with respect to compensation paid to each of its chief executive officer and three other named executive officers whose compensation was required to be disclosed in the proxy statement (other than the chief financial officer), unless such compensation was performance-based as determined under the Section 162(m) regulations. Under the Tax Act, the performance-based compensation exception has been repealed, subject to certain transition rules. In addition, the deduction limitation now applies to anyone serving as the chief executive officer, the chief financial officer, and the top three other most highly compensated officers, and once an executive becomes a "covered employee" under Section 162(m), the individual will continue to be a "covered employee" as long as he or she remains employed by the company. The new rules generally apply to taxable years beginning after December 31, 2017 but do not apply to compensation paid pursuant to a written binding contract in effect on November 2, 2017 that is not modified in any material respect after that date. As a result, for fiscal years beginning after December 31, 2017, all compensation in excess of \$1 million paid to the specified executives will not be deductible, subject to the transition relief. On March 11, 2021, The American Rescue Plan Act of 2021, or ARPA, was signed into law to assist in the economic and health recovery brought on by the COVID-19 pandemic. Beginning on or after January 1, 2027, the ARPA expands the applicability of Section 162(m) to also include the next five highest paid corporate officers so that the total number of covered employees subject to the \$1 million deduction limitation will at least be 10. In designing our executive compensation program and determining the compensation of our executive officers, including our named executive officers, our compensation committee considers a variety of factors, including the potential impact of the Section 162(m) deduction limit. However, to maintain flexibility to compensate our executive officers in a manner designed to promote our short-term and long-term corporate goals, our compensation committee has not adopted a policy that all compensation must be deductible. Our compensation committee believes that our stockholders' interests are best served if its discretion and flexibility in awarding compensation is not restricted, even though some compensation awards may result in non-deductible compensation expense.

2022 Executive Compensation

Base Salary Compensation for Our Named Executive Officers in 2022

Mr. Albers served as our president and chief executive officer until April 4, 2022 when he became our executive chairman. In connection with Mr. Albers' transition to the role of executive chairman, in the first quarter of 2022 the compensation committee reviewed Mr. Albers' overall compensation and determined to maintain his base salary of \$745,000 for the period beginning on January 1, 2022 and ending on April 3, 2022 and a base salary of \$425,000 for the remainder of 2022. Further, in connection with Ms. Haviland's transition to serve as our president and chief executive officer effective April 4, 2022, in the first quarter of 2022 the compensation committee reviewed Ms. Haviland's overall compensation and determined to increase her base salary to \$501,227 for the period beginning on January 1, 2022 and ending on April 3, 2022 and a base salary of \$745,000 for the remainder of 2022. In addition, in the first quarter of 2022, our compensation committee approved merit increases in base salary for each of our other named executive officers effective January 1, 2022 based upon the company's achievement of 2021 corporate performance goals, each executive officer's achievement of individual performance goals and the comparison to the base salary of similar executive officers in our 2022 peer group. The table below sets forth the adjustments to base salary, in dollars and as a percentage, for each of our named executive officers:

	2021 Base Salary	2022 Base Salary	
Name	(\$)	(\$)	Increase (%)
Jeffrey W. Albers	745,000	505,000 (2)	N/A
Michael Landsittel	435,000	513,300	18.0 %*
Fouad Namouni, M.D.	555,899	583,694	5.0 %
Kathryn Haviland	501,277	704,120 (2)	N/A
Percy Carter, Ph.D.	550,000 (1)	567,050	3.1 %

^{*}Includes a market adjustment to align with the 50th percentile of our peer group in addition to merit increase. Mr. Landsittel's base salary was consistently below the 50th percentile of our peer group in prior years notwithstanding salary adjustments in previous years to bring his base salary closer to the 50th percentile of our peer group.

(2) Mr. Albers and Ms. Haviland's salary represents the impact of the change in salary as discussed above as a result of the transition of roles as discussed above.

Cash Incentive Compensation for Our Named Executive Officers in 2022

In the first quarter of 2022, our compensation committee approved target award opportunities for each of our named executive officers for 2022. As a result of our leadership transitions, the target award opportunity for Mr. Albers will be based solely on 2022 corporate performance goals for the period starting January 1, 2022 and ending on April 3, 2022, and the target award opportunity for Ms. Haviland will be based 25% on individual performance goals and 75% on 2022 corporate performance goals for the period starting January 1, 2022 and ending on April 3, 2022 and will be based solely on 2022 corporate performance goals for the remainder of 2022. The target award opportunity for each of our other named executive officers for 2022 will be based 25% on individual performance goals and 75% on 2022 corporate performance goals. The table below shows the target award as a percentage of each named executive officer's annual base salary in 2022, as well as the target cash incentive payment in dollars for 2022.

Name	2022 Target Award (% of Base Salary)	2022 Target Cash Incentive Payment (\$)
Jeffrey W. Albers	26 % (1)	130,375
Michael Landsittel	50 %	256,650
Fouad Namouni, M.D.	60 %	350,216
Kathryn Haviland	68 % (1)	478,802
Percy Carter, Ph.D.	50 %	283,525

⁽¹⁾ Mr. Albers and Ms. Haviland's amounts represents the impact of the change in base salary and target annual incentive compensation as a result of the transition of their respective roles as of April 4, 2022. For the period beginning on January 1, 2022 and ending on April 3, 2022, Mr. Albers is eligible to earn pro-rated incentive compensation in connection with his services as our president and chief executive officer during that period based on a target bonus percentage of 70% (as a percentage of annualized base salary, weighted 100% with respect to the company's performance with respect to its goals for the fiscal year ending December 31, 2022). Ms. Haviland's target annual incentive compensation will be (i) for the period starting on January 1, 2022 and ending on April 3, 2022, 60% of her annual base salary as in effect during that period (which will be weighted 75% on company performance and 25% on Ms. Haviland's individual performance) and (ii) for the period starting on April 4, 2022 and ending on December 31, 2022, 70% of her annual base salary as in effect during that period, weighted 100% on the company's performance with respect to its goals for the fiscal year ending December 31, 2022. See "Employment, Severance and Change in Control Arrangements" for more information.

⁽¹⁾ Dr. Carter joined the company as our chief scientific officer in May 2021. This amount represents his annualized base salary for the year ended December 31, 2021, which was determined based on the negotiated terms of his offer of employment.

In determining the 2022 actual cash incentive compensation for our named executive officers, our compensation committee and board of directors will review the performance of the company during 2022. Our compensation committee retains the discretion to adjust upward or downward any bonus award as it deems appropriate. However, as noted above, any annual performance-based cash incentive program payouts will be capped at 150% of the target payout level. We expect to pay any cash incentive compensation in the first quarter of 2023.

Compensation Committee Report

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

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

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

Lynn Seely, M.D. (chair) Lonnel Coats Charles A. Rowland, Jr.

2021 Summary Compensation Table

The following table sets forth information regarding total compensation, for service rendered in all capacities, earned by or paid to each of our named executive officers during the years indicated.

				Stock	Option	Non-Equity Incentive Plan	All Other	
Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Awards (\$)(1)	Awards (\$)(1)	Compensation (\$)(2)	Compensation (\$)	Total (\$)
			Donus (3)					
Jeffrey W. Albers (3)	2021	745,000		4,005,200	4,325,704	625,800	11,600 (4)	9,713,304
President and Chief Executive Officer	2020	645,000		2,435,850	2,710,242	545,025	8,550	6,344,667
	2019	590,000		2,576,350	5,808,841	378,780	8,400	9,362,371
Michael Landsittel	2021	435,000		1,307,898	1,412,613	232,453	11,600 (4)	3,399,564
Chief Financial Officer	2020	379,575		676,625	752,845	197,379	8,550	2,014,974
	2019	345,000		454,650	1,025,090	125,580	8,400	1,958,720
Fouad Namouni, M.D.	2021	555,899		1,307,898	1,412,613	300,185	130,437 (5)	3,707,032
President, Research and Development	2020 (6)	186,154		3,052,725	3,326,739	103,114	´ — ` ´	6,668,732
•								
Kathryn Haviland	2021	501,277		1,307,898	1,412,613	273,509	11,600 (4)	3,506,897
Chief Operating Officer	2020	460,944		771,353	858,243	264,466	8,550	2,363,556
* * * * * * * * * * * * * * * * * * * *	2019	431,830		757,750	1,708,483	183,960	8,400	3,090,423
Percy Carter, Ph.D. (7)	2021	344,808 (8)		1,947,522	1,883,325	182,221	19,650 (9)	4.3477,525
Chief Scientific Officer		, , ,				· ·	, , ,	· · · · · ·

⁽¹⁾ These amounts represent the aggregate grant date fair value of stock option awards and RSU awards granted to our named executive officers in 2021, 2020 and 2019, as applicable, computed in accordance with FASB ASC Topic 718. Such aggregate grant date fair values do not take into account any estimated forfeitures related to service-based vesting conditions. See Note 12 to the audited consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2021 regarding assumptions underlying the valuation of equity awards.

- (3) 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.
- (4) Amount represents the dollar value of matching contributions made under our 401(k) plan.
- (5) Amount represents the reimbursements for expenses incurred in connection with his relocation, including \$36,951 related to a tax gross up.
- (6) Dr. Namouni joined the company as our president, research and development, in September 2020 and was not a named executive officer for 2019.
- (7) Dr. Carter joined the company as our chief scientific officer in May 2021 and was not a named executive officer for 2020 and 2019.

⁽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 2021 was earned in 2021 and paid in 2022, annual cash incentive compensation for 2020 was earned in 2020 and paid in 2021 and annual cash incentive compensation for 2019 was earned in 2019 and paid in 2020.

- (8) Amount represents the salary actually paid to Dr. Carter for his services in 2021 and does not represent Dr. Carter's annualized base salary. His annualized base salary was \$550,000 for 2021.
- (9) Amount represents the dollar value of matching contributions made under our 401(k) plan equal to \$2,538 and travel reimbursement related to travel to the corporate headquarters equal to \$17,111.

Grants of Plan-Based Awards for Fiscal Year 2021

The following table sets forth information concerning each grant of an award made to a named executive officer during the fiscal year ended December 31, 2021 under any plan, contract, authorization or arrangement pursuant to which cash, securities, similar instruments or other property may be received:

		Date of Compensation	Payouts U Equity	ed Future Inder Non Incentive vards (1)	All Other Stock Awards: Number of	All Other Option Awards: Number of Securities	Exercise or Base Price of Option	Grant Date Fair Value of Stock and Option
Name	Grant Date	Committee Approval	Target (\$)	Maximum (\$)(2)	Shares of Stock or Units (#)	Underlying Options (#)	Awards (\$)(3)	Awards (\$)(4)
Jeffrey W. Albers			521,500	782,250				
	3/1/2021 3/1/2021	2/18/2021 2/18/2021			40,000	80,000	100.13	4,005,200 4,325,704
Michael Landsittel			195,750	293,625				
	3/1/2021 3/1/2021	2/18/2021 2/18/2021		,	13,062	26,125	100.13	1,307,898 1,412,613
Fouad Namouni, M.D.			250,155	375,232				
,	3/1/2021 3/1/2021	2/18/2021 2/18/2021	,	,	13,062	26,125	100.13	1,307,898 1,412,613
Kathryn Haviland			225,575	338,362				
,	3/1/2021 3/1/2021	2/18/2021 2/18/2021			13,062	26,125	100.13	1,307,898 1,412,613
Percy Carter, Ph.D. (5)			182,221	273,332				
•	6/1/2021 6/1/2021	5/4/2021 5/4/2021			21,843	39,200	89.16	1,947,522 1,883,325

⁽¹⁾ Amounts shown in the "Target (\$)" and "Maximum (\$)" columns reflect the target and maximum amounts payable to each named executive officer under our 2021 annual performance-based cash incentive program as described under "Annual Performance-Based Cash Incentives" above. Actual payments made for 2021 are provided in the "2021 Summary Compensation Table." As there are no threshold amounts with respect to these performance-based cash payments, the column "Threshold (\$)" is inapplicable and therefore has been omitted from this table.

⁽²⁾ Our compensation committee determined to formally cap annual cash incentive program payouts in any given year at 150% of the target payout level.

⁽³⁾ The exercise price of these stock options is equal to the closing price of our common stock as reported on the Nasdaq Global Select Market on the grant date.

⁽⁴⁾ These amounts represent the aggregate grant date fair value of awards granted to our named executive officers in 2021, computed in accordance with FASB ASC Topic 718. Such grant-date fair values do not take into account any estimated forfeitures related to service-based vesting conditions. See Note 12 to the audited consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2021 regarding assumptions underlying the valuation of equity awards.

⁽⁵⁾ Dr. Carter joined the company as our chief scientific officer, in May 2021. Under the terms of his employment agreement, he was eligible to receive a pro-rata target award for the year ended December 31, 2021.

Outstanding Equity Awards at 2021 Fiscal Year-End

The following table sets forth information concerning outstanding equity awards held by each of our named executive officers at December 31, 2021. Unless otherwise specified, the equity awards are subject to certain acceleration of vesting provisions as set forth in the applicable named executive officer's employment agreement, as described below.

		Option Awar	ds		Stock Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of StockThat HaveNotVested (\$)(1)		
JeffreyW. Albers	135,403 (2)	_	\$1.87	7/30/2024 (3)	_	_		
	7,170 (2)	_	\$8.80	2/10/2025 (3)	_	_		
	77,500 (2)	_	\$15.01	2/3/2026 (4)	_	_		
	170,000 (2)		\$36.05	2/16/2027 (4)				
	162,916 (5)	7,084	\$81.44	2/16/2028 (4)	_	_		
	75,968 (6)	34,532	\$86.60	3/1/2029 (4)	14,874 (7)	1,593,154 (4)		
	39,375 (8)	50,625	\$54.13	3/1/2030 (4)	33,750 (9)	3,614,963 (4)		
	15,000 (10)	65,000	\$100.13	3/1/2031 (4)	40,000 (11)	4,284,400 (4)		
Michael Landsittel	26,363 (2)	_	\$1.87	10/8/2024 (3)	_	_		
	1,818 (2)	_	\$8.80	2/10/2025 (3)	_			
	10,000 (2)	_	\$15.01	2/3/2026 (4)	_	_		
	20,000 (2)		\$36.05	2/16/2027 (4)	_			
	24,916 (5)	1,084	\$81.44	2/16/2028 (4)	_	_		
	13,406 (6)	6,094	\$86.60	3/1/2029 (4)	2,624 (7)	281,057 (4)		
	10,937 (8)	14,063	\$54.13	3/1/2030 (4)	9,375 (9)	1,004,156 (4)		
	4,898 (10)	21,227	\$100.13	3/1/2031 (4)	13,062 (11)	1,399,071 (4)		
Fouad Namouni, M.D.	18,958 (12)	46,042	\$93.93	10/1/2030 (15)	24,375 (14)	2,610,806 (15)		
	4,898 (10)	21,227	\$100.13	3/1/2031 (4)	13,062 (11)	1,399,071 (4)		
Kathryn Haviland	2 (2)	_	\$16.28	2/1/2026 (4)	_	_		
	591 (2)		\$36.05	2/16/2027 (4)				
	37,375 (5)	1,625	\$81.44	2/16/2028 (4)				
	22,343 (6)	10,157	\$86.60	3/1/2029 (4)	4,374 (7)	468,499 (4)		
	12,468 (8)	16,032	\$54.13	3/1/2030 (4)	10,687 (9)	1,144,685 (4)		
	4,898 (10)	21,227	\$100.13	3/1/2031 (4)	13,062 (11)	1,399,071 (4)		
Percy Carter, Ph.D.	— (16)	39,200	\$89.16	6/1/2031 (15)	21,843 (17)	2,339,604 (15)		

- (1) Amounts shown are based on a price of \$107.11 per share, which was the closing price of our common stock as reported on the Nasdaq Global Select Market on December 31, 2021, the last trading day of the year.
- (2) This option was fully vested as of December 31, 2021.
- (3) This equity award was granted under our 2011 Stock Option and Grant Plan, as amended from time to time, or the 2011 Plan.
- (4) This equity award was granted under our 2015 Stock Option and Incentive Plan.
- (5) This option vested with respect to 1/48th of the shares underlying the option on March 16, 2018 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through February 16, 2022, subject to continued employment through each applicable vesting date.
- (6) This option vested with respect to 1/48th of the shares underlying the option on April 1, 2019 and vests as to an additional 1/48th of the shares underlying the option each month thereafter through March 1, 2023, subject to continued employment through each applicable vesting date.
- (7) This RSU vests in in four equal installments on each of March 1, 2020, 2021, 2022 and 2023, subject to continued employment through each applicable vesting date
- (8) This option vested with respect to $1/48^{th}$ of the shares underlying the option on April 1, 2020 and vests as to an additional $1/48^{th}$ of the shares underlying the option each month thereafter through March 1, 2024, subject to continued employment through each applicable vesting date.
- (9) This RSU vests in four equal installments on each of March 1, 2021, 2022, 2023 and 2024, subject to continued employment through each applicable vesting date
- (10) This option vested with respect to $1/48^{th}$ of the shares underlying the option on April 1, 2021 and vests as to an additional $1/48^{th}$ of the shares underlying the option each month thereafter through March 1, 2025, subject to continued employment through each applicable vesting date.
- (11) This RSU vests in four equal installments on each of March 1, 2022, 2023, 2024 and 2025, subject to continued employment through each applicable vesting date.
- (12) This option vests with respect to 25% of the shares underlying the option on October 1, 2021 and vests to an additional 1/48th of the shares underlying the option each month thereafter through October 1, 2024, subject to continued employment through each applicable vesting date.

- (13) This option vests with respect to 25% of the shares underlying the option on June 1, 2022 and vests to an additional 1/48th of the shares underlying the option each month thereafter through June 1, 2025, subject to continued employment through each applicable vesting date.
- (14) This RSU vests in four equal installments on each of October 1, 2021, 2022, 2023 and 2024, subject to continued employment through each applicable vesting date.
- (15) This equity award was granted under our 2020 Inducement Plan.
- (16) This option vests with respect to 25% of the shares underlying the option on June 1, 2022 and vests to an additional 1/48th of the shares underlying the option each month thereafter through June 1, 2025, subject to continued employment through each applicable vesting date.
- (17) This RSU vests in four equal installments on each of June 1, 2022, 2023, 2024 and 2025, subject to continued employment through each applicable vesting date

Option Exercises and Stock Vested

The following table sets forth information concerning option exercises and the vesting of RSU awards for each of our named executive officers during the fiscal year ended December 31, 2021:

	Option Awa	rds	Stock Awards			
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$) (1)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)(2)		
Jeffrey W. Albers	111,000	9,905,740	18,688	1,871,229		
Michael Landsittel	_	_	4,438	444,377		
Fouad Namouni, M.D.	_	_	8,125	826,475		
Kathryn Haviland	4,000	249,040	5,751	575,848		
Percy Carter, Ph.D.	_	_	_	_		

- (1) The value realized when the stock options were exercised represents (i) the excess of the closing price of a share of our common stock as reported on the Nasdaq Global Select Market on the date of exercise over the per share exercise price of the stock option, multiplied by (ii) the number of option shares exercised.
- (2) The value realized upon vesting of RSUs is calculated by multiplying the number of RSUs vested by the closing price market price of a share of our common stock as reported on the Nasdaq Global Select Market on the vest date.

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, including certain severance payments and benefits in connection with a change-in-control. We believe that reasonable and competitive change-in-control payments and benefits are an important part of an executive compensation program to attract and retain senior executives. We also believe such payments and benefits are in the best interests of our stockholders because they incentivize senior executives to continue to strive to achieve stockholder value in connection with change-in-control situations, particularly where the possibility of a change-in-control and the related uncertainty may lead to the departure or distraction of senior executives to the detriment of our company and our stockholders.

Jeffrey W. Albers, Chief Executive Officer. Under the terms of the employment agreement with Mr. Albers, our chief executive officer, until it was amended in December 2021 as described below, if Mr. Albers' employment is terminated by us without cause or by Mr. Albers for good reason (each term 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) continued base salary in an amount equal to one (1) times Mr. Albers' 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.

Effective December 22, 2021, we entered into an employment agreement amendment with our chief executive officer, which was approved by the compensation committee of our board of directors. The changes contained in the amendment are

consistent with our industry peer group and were recommended to the compensation committee by Aon. Under the amendment to Mr. Albers' employment agreement, in the event that Mr. Albers' employment is terminated by us without cause or Mr. Albers terminates his employment with us for good reason (each term as defined in Mr. Albers' employment agreement), in either case within 12 months following the occurrence of a sale event (as defined in Mr. Albers' employment agreement), subject to Mr. Albers' execution of a release of potential claims against us, he will be entitled to receive: (i) a lump sum in cash in an amount equal to the sum of (A) two (2) times his base salary then in effect plus (B) two (2) times his target annual incentive compensation for the year in which the termination occurs, (ii) a monthly cash payment for 24 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.

Mr. Albers served as our president and chief executive officer until April 4, 2022 when he became our executive chairman. In connection with Mr. Albers' transition to the role of executive chairman, in January 2022, we entered into an amended and restated employment agreement with Mr. Albers, effective as of April 4, 2022, which was intended to replace each prior agreement entered into by the company and Mr. Albers. Pursuant to such agreement, Mr. Albers receives an annual base salary of \$425,000. For the period beginning on January 1, 2022 and ending on April 3, 2022, Mr. Albers is eligible to earn pro-rated incentive compensation in connection with his services as our president and chief executive officer during such period based on a target bonus percentage of 70% (as a percentage of annualized base salary, weighted 100% with respect to the Company's performance with respect to its goals for the fiscal year ending December 31, 2022), provided Mr. Albers remains a member of our board of directors on the day such incentive compensation is paid. In connection with his transition to serve as our executive chairman, Mr. Albers was granted options to purchase 15,000 shares of the company's common stock, 25% of which will vest upon the one year anniversary of the grant date and 75% of which shall thereafter vest ratably in monthly installments over 36 months, subject to continued service through each applicable vesting date, and 7,500 restricted stock units, which shall vest ratably in annual installments over four years beginning on the one year anniversary of the grant date, subject to continued service through each applicable vesting date. The grant date was March 1, 2022. If Mr. Albers' employment is terminated by us without cause or by Mr. Albers for good reason (each term 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) continued base salary in an amount equal to one (1) times Mr. Albers' 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. Mr. Albers' change-in-control payments and benefits were revised pursuant to his amended and restated employment agreement to provide that 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 one and one-half (1.5) times Mr. Albers' base salary then in effect plus one-and-one half (1.5) 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.

If any payment and benefits to be paid or provided to Mr. Albers, whether pursuant to the terms of his employment agreement or otherwise, would be subject to "golden parachute" excise taxes under the Internal Revenue Code of 1986, as amended, or the Code, the payments and benefits will be reduced to the extent necessary to avoid such excise taxes, but only if such a reduction of pay or benefits would result in a greater after-tax benefit to him.

Named Executive Officers Other Than Chief Executive Officer. Under the employment agreements with each of our other named executive officers prior to when such employment agreements were amended as of December 2021 as described below, if the executive officer's employment is terminated by us without cause or by the executive officer for good reason (each term as defined in his or her employment agreement), and subject to the executive officer's execution of a release of potential claims against us, the executive officer will be entitled to receive: (i) continued base salary in an amount equal to one (1) times the executive's base salary and (ii) a monthly cash payment for 12 months for medical and dental benefits or the executive officer's COBRA health continuation period, whichever ends earlier. However, in the event that the executive officer's employment is terminated by us without cause, or the executive officer terminates his or her employment with us for good reason, in either case within 12 months following the occurrence of a sale event (as defined in his or her employment agreement), in lieu of the severance payments and benefits described in the preceding sentence and subject to the executive officer's execution of a release of potential claims against us, the executive officer will be entitled to receive: (i) a lump sum in cash in an amount equal to the sum of 12 months of the executive officer's base salary then in effect plus the executive officer's target annual incentive compensation for the year in which the termination occurs, (ii) a monthly cash payment for 12 months for medical and dental benefits or the executive officer's COBRA health continuation period, whichever ends earlier, and (iii) full and immediate vesting and exercisability of all time-based stock options and other time-based stock-based awards held by the executive officer.

Effective December 22, 2021, we entered into employment agreement amendments with our chief financial officer, other named executive officers and other officers of the company, which were approved by the compensation committee of our board of directors. The changes contained in the amendment are consistent with our industry peer group and were recommended to the compensation committee by Aon. The amendments to the employment agreements with named executive officers other than Mr

Albers provide that in the event that the executive's employment is terminated by us without cause or the executive terminates his or her employment with us for good reason, in either case within 12 months following the occurrence of a sale event (each term as defined in the executive's existing employment agreement), subject to the executive's execution of a release of potential claims against us, the executive will be entitled to receive: (i) a lump sum in cash in an amount equal to the sum of (A) one and one-half (1.5) times the executive's 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 the executive's COBRA health continuation period, whichever ends earlier, and (iii) full and immediate vesting and exercisability of all time-based stock options and other time-based stock-based awards held by the executive

On April 4, 2022, Ms. Haviland became our president and chief executive officer. In connection with Ms. Haviland's transition into the role of our president and chief executive officer, on January 4, 2022, we entered into an amended and restated employment agreement, effective as of April 4, 2022, which was intended to replace each prior agreement entered into by the company and Ms. Haviland. Pursuant to such agreement, Ms. Haviland will receive an annual base salary of \$745,000 and her target annual incentive compensation will be 70% of her annual base salary, weighted 100% on the company's performance with respect to its goals for the fiscal year ending December 31, 2022. For the period starting on January 1, 2022 and ending on April 3, 2022, Ms. Haviland is eligible to earn prorated incentive compensation under her prior employment agreement in connection with her services as chief operating officer during such period based on Ms. Haviland's target annual incentive compensation equal to 60% of her annual base salary as in effect during such period (which will be weighed 75% on the company's performance and 25% on Ms. Haviland's individual performance), provided Ms. Haviland remains employed by the company on the day such incentive compensation is paid. In connection with her appointment as our new president and chief executive officer, Ms. Haviland was granted options to purchase 80,000 shares of the company's common stock, 25% of which will vest upon the one year anniversary of the grant date and 75% of which will thereafter vest ratably in monthly installments over 36 months subject to continued service through each applicable vesting date, and 40,000 restricted stock units, which shall vest ratably in annual installments over four years beginning on the one-year anniversary of the grant date subject to continued service through each applicable vesting date. The grant date was March 1, 2022. If Ms. Haviland's employment is terminated by us without cause or by Ms. Haviland for good reason (each term as defined in her employment agreement), and subject to Ms. Haviland's execution of a release of potential claims against us, Ms. Haviland will be entitled to receive: (i) continued base salary in an amount equal to one (1) times Ms. Haviland's base salary then in effect and (ii) a monthly cash payment for 12 months for medical and dental benefits or Ms. Haviland's COBRA health continuation period, whichever ends earlier. Ms. Haviland's change-in-control payments and benefits were revised pursuant to her amended and restated employment agreement to provide that in the event that Ms. Haviland's employment is terminated by us without cause or Ms. Haviland terminates her employment with us for good reason, in either case within 12 months following the occurrence of a sale event (as defined in Ms. Haviland's employment agreement), in lieu of the severance payments and benefits described in the preceding sentence and subject to Ms. Haviland's execution of a release of potential claims against us, she will be entitled to receive: (i) a lump sum in cash in an amount equal to the sum of (A) two (2) times her base salary then in effect plus (B) two (2) times her target annual incentive compensation for the year in which the termination occurs. (ii) a monthly cash payment for 24 months for medical and dental benefits or Ms. Haviland'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. Haviland.

If any payment and benefits to be paid or provided to a named executive officer, whether pursuant to the terms of his or her employment agreement or otherwise, would be subject to "golden parachute" excise taxes under the Code, the payments and benefits will be reduced to the extent necessary to avoid such excise taxes, but only if such a reduction of pay or benefits would result in a greater after-tax benefit to the executive.

Subject to the terms of our employment agreement with Dr. Carter, we will also reimburse to Dr. Carter or pay to third parties on his behalf all reasonable and documented expenses incurred in connection with Dr. Carter's relocation up to a maximum aggregate amount of \$150,000. We will gross-up any taxes incurred on eligible relocation expenses reimbursed to Dr. Carter or paid to third parties on his behalf, and following Dr. Carter's relocation, we will also pay him a one-time, lump sum relocation allowance in the amount of \$10,000 to use in his discretion to cover expenses related to his relocation to the Cambridge, Massachusetts area. In addition, we agreed to provide Mr. Carter with a one-time cash sign-on bonus in an amount of up to \$200,000, plus a gross-up payment to make Dr. Carter whole for income taxes he is required to pay on such sign-on bonus. These relocation and sign-on bonus amounts were not paid in 2021. If within specific time periods Dr. Carter either terminates his employment without good reason or is terminated for cause, Dr. Carter is obligated to repay all or a portion of any sign-on bonus and associated tax gross-up he received; the aggregate relocation expenses reimbursed to Dr. Carter or paid to third parties on his behalf and the associated tax gross-up and the relocation allowance, all subject to the terms of the employment agreement.

In addition, under the employment agreement with Dr. Namouni, we agreed to reimburse to Dr. Namouni or pay to third parties on his behalf all reasonable and documented expenses incurred in connection with his relocation up to a maximum aggregate amount of \$150,000, and gross-up any taxes incurred on eligible relocation expenses reimbursed to Dr. Namouni or paid to third parties on his behalf, and following the commencement of his employment, we also agreed to provide Dr. Namouni a one-time, lump sum relocation allowance in the amount of \$10,000 to use in his discretion to cover expenses related to his relocation to the Cambridge, Massachusetts area. If within specific time periods Dr. Namouni terminates his employment without good reason or is

terminated for cause, in either case, Dr. Namouni is obligated to repay all or a portion of the aggregate relocation expenses reimbursed to Dr. Namouni or paid to third parties on his behalf and the relocation allowance, subject to the terms of the employment agreement.

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, subject to specified terms and conditions and provisions required by law, the named executive officer will not compete with us and will not solicit our employees, consultants, customers or suppliers.

Potential Payments Upon Termination or Change-in-Control

We offer our executives severance benefits upon an involuntary or constructive termination, as we believe such post-employment compensation protections are appropriate in light of similar benefits available to executive officers at companies in our peer group. We also offer our executives additional severance benefits in connection with change-in-control situations. We believe that reasonable and competitive change-in-control payments and benefits are an important part of an executive compensation program to attract and retain senior executives. We also believe such payments and benefits are in the best interests of our stockholders because they incentivize senior executives to continue to strive to achieve stockholder value in connection with change-in-control situations, particularly where the possibility of a change-in-control and the related uncertainty may lead to the departure or distraction of senior executives to the detriment of our company and our stockholders.

The amount of compensation and benefits payable to each named executive officer under our employment agreements in various termination and/or change-in-control situations has been estimated in the table below, which assumes that such termination and/or change-in-control occurred on December 31, 2021 and that no noncompetition provisions will be enforced following any such termination. Such compensation and benefits amounts were calculated based on employment agreements, as amended, in effect on December 31, 2021. The value of the equity vesting acceleration was calculated based on the assumption that the change-in-control and/or executive's employment termination occurred on December 31, 2021, the last business day of the fiscal year ended December 31, 2021. For purposes of the following table, we have used \$107.11 per share, which was the closing price of our common stock as reported on the Nasdaq Global Select Market on December 31, 2021, the last trading day of the year 2021, to estimate the value of our common stock upon acceleration. The value of the option vesting acceleration was calculated by multiplying the number of unvested shares underlying stock options subject to vesting acceleration as of December 31, 2021 by the difference between the closing price of our common stock as reported on the Nasdaq Global Select Market on December 31, 2021 and the exercise price for such unvested stock options. The value of the RSU vesting acceleration was calculated by multiplying the number of unvested RSUs subject to vesting acceleration as of December 31, 2021 by the closing price of our common stock as reported on the Nasdaq Global Select Market on December 31, 2021.

			Resignation for			
Name	Benefit	Sale Event Without Termination of Employment (S)				
Jeffrey W. Albers(1)	Severance payments		745,000 (2)	Sale Event (\$) 1,490,000 (3)		
semey willibers(1)	Cash incentive payments	_	, is, occ (2)	1,251,600 (4)		
	Health care continuation	_	22,256 (5)	44.511 (6)		
	Acceleration of equity award vesting	_		13,518,427 (7)		
	Total	_	767,256	16,304,538		
Michael Landsittel	Severance payments	_	435,000 (2)	652,500 (8)		
	Cash incentive payments	_		348,680 (9)		
	Health care continuation	_	22,256 (5)	33,384 (10)		
	Acceleration of equity award vesting	_	<u> </u>	3,730,320 (7)		
	Total	_	457,256	4,764,884		
Fouad Namouni, M.D.	Severance payments	_	555,899 (2)	833,849 (8)		
	Cash incentive payments	_	_	450,278 (9)		
	Health care continuation	_	22,256 (5)	33,108 (10)		
	Acceleration of equity award vesting	_	_ `	4,764,875 (7)		
	Total	_	578,155	6,082,386		
Kathryn Haviland (11)	Severance payments	_	501,277 (2)	751,916 (8)		
	Cash incentive payments	_	<u> </u>	410,264 (9)		
	Health care continuation	_	22,072 (5)	33,108 (10)		
	Acceleration of equity award vesting	_	<u> </u>	4,259,828 (7)		
	Total	_	523,349	5,455,116		
Percy Carter, Ph.D.	Severance payments	_	344,808 (2)	517,212 (8)		
	Cash incentive payments			273,332 (9)		
	Health care continuation	_	22,256 (5)	33,384 (10)		
	Acceleration of equity award vesting			3,043,244 (7)		
	Total	_	367,064	3,867,172		

Mr. Albers' employment agreement was amended effective April 4, 2022 in connection with his transition to the role of executive chairman, including the amount of compensation and benefits payable to Mr. Albers in various termination and/or change-in-control situations. See "—Jeffrey W. Albers, Chief Executive Officer" above for a description of such amounts. (1)

- (2) Represents continued base salary in an amount equal to one (1) times the named executive officer's base salary in effect as of December 31, 2021.
- (3) Represents a lump sum in cash in an amount equal to two (2) times Mr. Albers' base salary in effect as of December 31, 2021.
- (4) Represents a lump sum in cash in an amount equal to two (2) times Mr. Albers' target annual incentive compensation for the year ended December 31, 2021.
- (5) Represents a monthly cash payment for 12 months for continued medical and dental benefits for the named executive officer.
- (6) Represents a monthly cash payment for 24 months for continued medical and dental benefits for Mr. Albers.
- (7) Represents the acceleration of vesting as to 100% of the unvested equity awards held by the named executive officer.
- (8) Represents a lump sum in cash in an amount equal to one and one-half (1.5) times the named executive officer's base salary in effect as of December 31, 2021.
- (9) Represents a lump sum in cash in an amount equal to one-and-one half (1.5) times the named executive officer's target annual incentive compensation for the year ended December 31, 2021.
- (10) Represents a monthly cash payment for 18 months for continued medical and dental benefits for the named executive officer.
- (11) Ms. Haviland's employment agreement was amended effective April 4, 2022 in connection with her transition to the role of president and chief executive officer including the amount of compensation and benefits payable to Ms. Haviland in various termination and/or change-in-control situations. See "— Named Executive Officers Other Than Chief Executive Officer" above for a description of such amounts.

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 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, agai

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

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

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

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

Compensation Committee Interlocks and Insider Participation

From January 1, 2021 through June 2, 2021, Daniel Lynch, Charles A. Rowland, Jr. and Lynn Seely served on our compensation committee and, after Mr. Lynch's tenure on our board of directors ended on June 2, 2021, Lonnel Coats was appointed to serve on our compensation committee such that the membership for the remainder of the year consisted of Dr. Seely, Mr. Coats and Mr. Rowland. 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, other than Jeffrey W. Albers and Kathryn Haviland, who serve as members of our board of directors but do not serve on 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 company.

CEO PAY RATIO DISCLOSURE

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, and Item 402(u) of Regulation S-K, we are providing the following information about the relationship of the total annual compensation of our employees and the total annual compensation of Jeffrey W. Albers, our chief executive officer. The pay ratio included in this information is a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K. The pay ratio reported by other companies may not be comparable to the pay ratio reported below, as other companies have different employee populations and compensation practices and may use different methodologies, exclusions, estimates and assumptions in calculating their own pay ratios.

Pav Ratio Disclosure

For 2021, our last completed fiscal year:

- the total annual compensation of our median employee was \$396,068, as determined in accordance with Item 402 of Regulation S-K; and
- the total annual compensation of our chief executive officer, as determined in accordance with Item 402 of Regulation S-K and reported in the "2021 Summary Compensation Table" included elsewhere in this proxy statement was \$9,713,304.

Based on this information, for 2021, the ratio of the total annual compensation of Mr. Albers, who served as our chief executive officer during 2021, to the total annual compensation of our median employee was approximately 25 to 1.

Methodology

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

- We determined that, as of December 31, 2021, our employee population consisted of 566 individuals (excluding the 11 employees of Lengo
 Therapeutics, Inc., which we acquired and which became our wholly-owned subsidiary on December 30, 2021). Our employee population
 consisted of all full-time, part-time and temporary employees as of such date, excluding our chief executive officer.
- To identify the "median employee" from our employee population, for each employee we compared the amount of salary paid as of December 31, 2021, the bonus earned for 2021, employer contributions under our 401(k) plan for our U.S. employees and employer contributions under any defined contribution plan, if any, for our non-U.S. employees and the grant date fair value of stock options and RSUs awarded in 2021 as reflected in our human resources, payroll and equity award systems. In identifying the median employee, we included employees in non-U.S. countries. For our non-U.S. employees, amounts were converted to U.S. dollars using the foreign exchange rates from for the period from January 1, 2021 through December 31, 2021. We did not make any cost-of-living adjustments and did not annualize compensation.
- Once we identified our median employee, we combined all of the elements of such employee's compensation for 2021 in accordance with the requirements of Item 402 of Regulation S-K. As noted elsewhere in this proxy statement, we maintain a 401(k) plan that is intended to qualify under Section 401(k) of the Internal Revenue Code, and in general, all of our U.S. based employees, including our chief executive officer, are eligible to participate in the 401(k) plan. Effective January 1, 2021 we match 100% of an employee's 401(k) contributions up to the first 2% of the employee's compensation and 50% of an employee's 401(k) contributions up to a maximum of 4% of the participant's compensation, and any matching contributions are 100% vested immediately. Matching 401(k) contributions were included the median employee's total annual compensation.

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 our non-employee director compensation policy as it was in effect until June 2021, our non-employee directors were compensated as follows:

- Each non-employee director received an annual cash fee of \$40,000 (\$72,500 for a non-executive chairman of the board of directors and \$80,000 for the lead-independent director).
- Each non-employee director who is a member of the audit committee received an additional annual cash fee of \$9,000 (\$18,000 for the audit committee chairman).
- Each non-employee director who is a member of the compensation committee received an additional annual cash fee of \$7,500 (\$10,000 for the
 compensation committee chairman).
- Each non-employee director who is a member of the nominating and corporate governance committee received an additional annual cash fee of \$5,000 (\$10,000 for the nominating and corporate governance committee chairman).
- Members of the research and development committee received an additional annual cash fee of \$5,000 (\$10,000 for the nominating and corporate
 governance committee chairman).
- Each new non-employee director received an initial grant of a stock option to purchase 9,000 shares of common stock and 4,500 RSUs, each under the 2015 Plan, upon his or her initial election to our board of directors.
- Each continuing non-employee director received an annual grant of a stock option to purchase 4,500 shares of common stock and 2,250 RSUs, each under the 2015 Plan, on the date of the first meeting of our board of directors held after each annual meeting of our stockholders.

In June 2021, upon the recommendation of our compensation committee, our board of directors amended the non-employee director compensation policy. Under the amended non-employee director compensation policy, our non-employee directors are compensated as follows:

- Each non-employee director will receive an annual cash fee of \$50,000 (\$85,000 for a non-executive chairman of the board of directors and \$80,000 for the lead-independent director).
- Each non-employee director who is a member of the audit committee will receive an additional annual cash fee of \$10,000 (\$20,000 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 \$10,000 (\$20,000 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 \$5,000 (\$10,000 for the nominating and corporate governance committee chairman).
- Members of the research and development committee no longer receive an additional annual cash fee.
- Each new non-employee director will receive an initial grant of a stock option to purchase 7,000 shares of common stock and 3,400 RSUs, each
 under the 2015 Plan, upon his or her initial election to our board of directors.
- Each continuing non-employee director will receive an annual grant of a stock option to purchase 4,500 shares of common stock and 2,250 RSUs, each under the 2015 Plan, on the date of the first meeting of our board of directors held after each annual meeting of our stockholders.

The stock options granted to our non-employee directors will have an exercise price equal to the closing price of our common stock as reported on the Nasdaq Global Select Market on the date of grant and will expire ten years after the date of grant. The initial stock options granted to new non-employee directors will vest in equal monthly installments over a three-year period following the grant date, subject to such director's continued service on the board of directors. The initial RSUs granted to new non-employee directors will vest in equal annual installments over a three-year period beginning on the one-year anniversary of the grant date, subject to such director's continued service on the board of directors. The annual stock options and the annual RSUs 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 and annual equity awards 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.

In December 2020, our board of directors adopted stock ownership guidelines designed to ensure that our directors and senior executive officers are focused on both short- and long-term objectives and to better align their interests with other stockholders. See Other Compensation Policies and Practices – Stock Ownership Guidelines' for more information.

The following table sets forth a summary of the compensation for our non-employee directors during 2021.

Fees Earned or Paid	Stock Awards	Option Awards	All Other	
in Cash (\$)(2)	(\$)(3)	(\$)(3)	Compensation (\$)	Total (\$)
_	335,648	340,290	_	675,938
46,639	196,043	200,973	_	443,655
60,883	196,043	200,973	_	457,899
56,639	196,043	200,973	_	453,655
55,967	196,043	200,973	_	452,982
55,000	196,043	200,973	20,000(10)	472,016
58,819	_	68,711(12)	29,167(13)	156,697
70,253	196,043	200,973	_	467,268
68,069	196,043	200,973	_	465,085
	or Paid in Cash (\$)(2) — 46,639 60,883 56,639 55,967 55,000 58,819 70,253	or Paid in Cash (\$)(2) (\$)(3) — 335,648 46,639 196,043 60,883 196,043 56,639 196,043 55,967 196,043 55,000 196,043 58,819 — 70,253 196,043	or Paid in Cash (\$)(2) Awards (\$)(3) Awards (\$)(3) — 335,648 340,290 46,639 196,043 200,973 60,883 196,043 200,973 56,639 196,043 200,973 55,967 196,043 200,973 55,000 196,043 200,973 58,819 — 68,711(12) 70,253 196,043 200,973	or Paid in Cash (S)(2) Awards (S)(3) Awards (S)(3) All Other Compensation (S) 46,639 196,043 200,973 — 60,883 196,043 200,973 — 56,639 196,043 200,973 — 55,967 196,043 200,973 — 55,000 196,043 200,973 — 55,819 — 68,711(12) 29,167(13) 70,253 196,043 200,973 —

- Mr. Albers, our executive chairman, and Ms. Haviland, our president and chief executive officer, do not receive any compensation for their service as directors. Information regarding
 Mr. Albers and Ms. Haviland's compensation can be found in the "2021 Summary Compensation Table" included elsewhere in this proxy statement.
- (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 2021, computed in accordance with FASB ASC Topic 718. Such aggregate grant date fair values do not take into account any estimated forfeitures related to service-based vesting conditions. See Note 12 to the audited consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2021 regarding assumptions underlying the valuation of equity awards.
- (4) Ms. Beckman became a member of our board of directors in December 2021 and received initial director grants in accordance with the terms of our non-employee director compensation policy. As of December 31, 2021, Ms. Beckman held options to purchase 7,000 shares of our common stock and 3,400 restricted stock units.
- (5) As of December 31, 2021, Mr. Borisy held options to purchase 21,375 shares of our common stock and 2,250 restricted stock units.
- (6) As of December 31, 2021, Mr. Coats held options to purchase 55,011 shares of our common stock and 2,250 restricted stock units.
- (7) As of December 31, 2021, Dr. Demetri held options to purchase 78,646 shares of our common stock and 2,250 restricted stock units
- (8) As of December 31, 2021, Dr. Goldberg held options to purchase 32,284 shares of our common stock and 2,250 restricted stock units.
- (9) As of December 31, 2021, Dr. Lydon held options to purchase 43,193 shares of our common stock and 2,250 restricted stock units
- (10) Amount represents cash compensation for services rendered by Dr. Lydon as a member of our scientific advisory board.
- (11) Mr. Lynch's tenure on our board of directors ended in June 2021. As of December 31, 2021, Mr. Lynch held options to purchase 38,693 shares of our common stock and no restricted stock units.
- (12) Represents the incremental fair value, calculated in accordance with FASB ASC Topic 718, related to the amendment to Mr. Lynch's options to extend the post-termination exercise period for such options to one year following the end of his consulting service relationship with the company instead of one year following the end of his tenure on our board of directors.
- (13) Amount represents cash compensation for services rendered by Mr. Lynch for consulting services provided after Mr. Lynch's tenure on our board of directors ended.
- (14) As of December 31, 2021, Mr. Rowland held options to purchase 32,284 shares of our common stock and 2,250 restricted stock units.
- $(15) \ \ As of December \ 31, 2021, Dr. \ Seely \ held \ options \ to \ purchase \ 65,011 \ shares \ of our \ common \ stock \ and \ 2,250 \ restricted \ stock \ units \ december \ 31, 2021, Dr. \ Seely \ held \ options \ to \ purchase \ 65,011 \ shares \ of our \ common \ stock \ and \ 2,250 \ restricted \ stock \ units \ december \ 31, 2021, Dr. \ Seely \ held \ options \ to \ purchase \ 65,011 \ shares \ of our \ common \ stock \ and \ 2,250 \ restricted \ stock \ units \ december \ 31, 2021, Dr. \ Seely \ held \ options \ to \ purchase \ 65,011 \ shares \ of \ our \ common \ stock \ and \ 2,250 \ restricted \ stock \ units \ december \ 31, 2021, Dr. \ Seely \ held \ options \ 40,011 \ shares \ of \ our \ common \ stock \ and \ 2,250 \ restricted \ stock \ units \ december \ 40,011 \ shares \ of \ our \ common \ stock \ and \ 2,250 \ restricted \ stock \ units \ december \ 40,011 \ shares \ of \ 0,011 \ shares \ 0,011 \ sh$

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, 2021. As of December 31, 2021, we had four equity compensation plans: the 2011 Plan, the 2015 Plan, the 2015 Employee Stock Purchase Plan, or 2015 ESPP, and the 2020 Plan. Each of the 2011 Plan, the 2015 Plan and the 2015 ESPP was approved by our stockholders.

Equity Compensation Plan Information

Plan Category	_	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	_	Weighted average exercise price of outstanding options, warrants and rights (1)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (2)
Equity compensation plans approved by security holders	(3)	6,603,617(4)	\$	67.33	5,681,767(5)
Equity compensation plans not approved by security holders	(6)	668,565		92.77	288,982
Total		7,272,182	\$	69.37	5,970,749

- (1) The weighted average exercise price is calculated based solely on outstanding stock options.
- (2) As of December 31, 2021, (i) 3,044,717 shares remained available for future issuance under our 2015 Plan, (ii) 2,637,050 shares remained available for future issuance under our 2015 ESPP, and (iii) 288,982 shares remained available for future issuance under our 2020 Plan.
- (3) Consists of the 2011 Plan, the 2015 Plan and the 2015 ESPP.
- (4) Amount does not include any purchase rights accruing under the 2015 ESPP during the current purchase period, which commenced on December 1, 2021, because the purchase right (and therefore the number of shares to be purchased) will not be determined until the end of the purchase period on May 30, 2022. Subject to the number of shares remaining in the share reserve, the maximum number of shares purchasable by any participant in the 2015 ESPP on any one purchase date for any purchase period, including the current purchase period, may not exceed 2,500 shares.
- (5) Our 2015 Plan has an evergreen provision that allows for an annual increase in the number of shares available for issuance under the 2015 Plan to be added on the first day of each fiscal year in an amount equal to 4% of the number of shares of our common stock outstanding on the immediately preceding December 31 or such lesser amount determined by our board of directors or the compensation committee. Effective January 1, 2022, 2,365,64 additional shares were reserved for issuance under the 2015 Plan pursuant to this provision. Our 2015 ESPP has an evergreen provision that allows for an annual increase in the number of shares available for issuance under the 2015 ESPP to be added on the first day of each fiscal year in an amount equal to 1% of the total number of shares of our common stock outstanding on the immediately preceding December 31 or such lesser amount determined by our board of directors or the compensation committee. Effective January 1, 2022, 591,410 additional shares were reserved for issuance under the 2015 ESPP pursuant to this provision. The increases from January 1, 2022 have not been included in the table.
- (6) Consists of the 2020 Plan.

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, 2021 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 1301, "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, 2021.

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

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

Charles A. Rowland, Jr., Chair Daniella Beckman Lonnel Coats Mark Goldberg, M.D.

PROPOSAL 2— NON-BINDING ADVISORY VOTE ON EXECUTIVE COMPENSATION

We are providing our stockholders the opportunity to vote to approve, on an advisory, non-binding basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the SEC's rules. This proposal, which is commonly referred to as "say-on-pay," is required by the Dodd-Frank Act, which added Section 14A to the Securities Exchange Act of 1934, as amended, or the Exchange Act. Our executive compensation program is designed to reward value creation for stockholders and to attract, motivate, and retain our executive officers, who are critical to our success. Under this program, our named executive officers are rewarded for the achievement of our short- and long-term strategic and financial goals, which we believe serves to enhance short- and long-term value creation for our stockholders. Our compensation program contains elements of cash and equity-based compensation and is designed to align the interests of our executives with those of our stockholders and paying for performance.

The section of this proxy statement titled "Executive Compensation" beginning on page 20, including "Compensation Discussion and Analysis," describes in detail our executive compensation program and the decisions made by our compensation committee. As we describe in greater detail in the "Compensation Discussion and Analysis" section, our executive compensation program rewards value creation for stockholders and progress towards achieving our mission and that promotes company performance. At the same time, we believe our program does not encourage excessive risk-taking by management. While we do not have a formal or informal policy for allocating between long-term and short-term compensation, between cash and non-cash compensation or among different forms of non-cash compensation, we generally strive to provide our named executive officers with a mix of short-term and long-term performance-based incentives to encourage consistently strong performance, and our board of directors believes that this link between compensation and the achievement of our near- and long-term business goals has helped drive our performance over time.

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

RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the "Compensation Discussion and Analysis," compensation tables and narrative discussion, is hereby approved.

As an advisory vote, the outcome of the vote on this proposal is not binding and does not overrule any decision by the company or the board of directors (or any committee thereof), create or imply any change to the fiduciary duties of the company or the board of directors (or any committee thereof), or create or imply any additional fiduciary duties for the company or the board of directors (or any committee thereof). However, our compensation committee and board of directors value the opinions expressed by our stockholders in their vote on this proposal and intend to consider carefully the outcome of the vote when making future compensation decisions for named executive officers.

Recommendation of the Board of Directors

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

PROPOSAL 3—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 ending December 31, 2022. 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 online 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, 2021 and December 31, 2020. 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.

	 Year Ended	Decer	nber 31,
Fee Category	2021		2020
Audit Fees (1)	\$ 1,339,800	\$	1,334,492
Audit-Related Fees (2)	_		_
Tax Fees (3)	427,445		327,087
All Other Fees (4)	_		_
Total Fees	\$ 1,767,245	\$	1,661,579

- (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 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 2021 or 2020.
- (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, and the audit committee has approved 100% of the services from Ernst & Young LLP.

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 ENDING DECEMBER 31, 2022.

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. We did not have any related party transactions in 2021.

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, 2022 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 named executive officer listed in the Summary Compensation table above; and
- all of our executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to stock options that are currently exercisable or will become exercisable within 60 days after March 31, 2022 or RSUs vesting within 60 days after March 31, 2022 are considered outstanding and beneficially owned by the person holding the stock options for the purpose of calculating the percentage ownership of that person, but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, to our knowledge, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to applicable community property laws. The inclusion herein of any shares as beneficially owned does not constitute an admission of beneficial ownership.

The column entitled "Percentage of Shares Beneficially Owned" is based on a total of shares of our common stock outstanding as of March 31, 2022. Except as otherwise set forth below, the address of the beneficial owner is c/o Blueprint Medicines Corporation, 45 Sidney Street, Cambridge, Massachusetts 02139. Beneficial ownership representing less than one percent of our outstanding common stock is denoted with an "*."

	Number of shares beneficially	Percentage of shares beneficially
Name and address of beneficial owner	owned	owned
5% stockholders		
Entities affiliated with the Vanguard Group (1)	5,533,771	9.29%
Entities affiliated with BlackRock, Inc. (2)	5,336,874	8.96%
T. Rowe Price Associates, Inc. (3)	4,550,539	7.64%
Entities affiliated with Wellington Management Group LLP (4)	3,447,325	5.84%
Named executive officers and directors		
Jeffrey W. Albers (5)	816,966	1.35%
Daniella Beckman (6)	972	*
Alexis Borisy (7)	81,343	*
Percy Carter, Ph.D. (8)	729	*
Lonnel Coats (9)	54,073	*
George D. Demetri. M.D. (10)	77,708	*
Mark Goldberg, M.D. (11)	36,346	*
Kathryn Haviland (12)	103,276	*
Michael Landsittel (13)	130,992	*
Nicholas Lydon, Ph.D. (14)	76,118	*
Fouad Namouni, M.D. (15)	41,701	*
Charles A. Rowland, Jr. (16)	31,346	*
Lynn Seely, M.D. (17)	64,073	*
All executive officers and directors as a group (19 persons) (18)	2,098,627	3.42%

⁽¹⁾ Based solely on a Schedule 13G/A filed with the SEC on February 9, 2022 by entities affiliated with the Vanguard Group, or Vanguard. The address for Vanguard is 100 Vanguard Blvd., Malvern, PA 19355.

⁽²⁾ Based solely on a Schedule 13G/A filed with the SEC on February 3, 2022 by BlackRock Inc., or BlackRock. The address for BlackRock is 55 East 52nd Street, New York, NY

⁽³⁾ Based solely on a Schedule 13G/A filed with the SEC on February 14, 2022 by T. Rowe Price Associates, Inc., or T Rowe Price. The address for T Rowe Price is 100 E. Pratt Street, Baltimore, MD 21202.

⁽⁴⁾ Based solely on a Schedule 13G filed with the SEC on February 4, 2022 by Wellington Management Group LLP, Wellington. The address for Wellington is 280 Congress Street, Boston, MA 02210.

- (5) Consists of (i) 115,806 shares of common stock and (ii) 700,260 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021.
- (6) Represents 972 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021.
- (7) Consists of (i) 64,468 shares of common stock and (ii) 16,875 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021
- (8) Represents 729 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021.
- (9) Consists of (i) 3,562 shares of common stock and (ii) 50,511 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021.
- (10) Consists of (i) 3,562 shares of common stock and (ii) 74,146 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31,
- (11) Consists of (i) 8,562 shares of common stock and (ii) 27,784 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021
- (12) Consists of (i) 11,565 shares of common stock and (ii) 91,711 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021.
- (13) Consists of (i) 9,173 shares of common stock and (ii) 121,819 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021.
- (14) Consists of (i) 37,425 shares of common stock and (ii) 38,693 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021.
- (15) Consists of (i) 7,103 shares of common stock and (ii) 34,598 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021.
- (16) Consists of (i) 3,562 shares of common stock and (ii) 27,784 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31,
- (17) Consists of (i) 3,562 shares of common stock and (ii) 60,511 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31,
- (18) Consists of (i) 306,858 shares of common stock and (ii) 1,791,769 shares of common stock underlying options exercisable and restricted stock units vesting within 60 days of March 31, 2021.

Delinquent Section 16(a) Reports

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 2021 except that Dr. Hewes and Ms. Rossi each had one late Form 4 transaction due to an administrative oversight.

STOCKHOLDER PROPOSALS

Stockholder Proposals Included in Proxy Statement

In order to be considered for inclusion in our proxy statement and proxy card relating to our annual meeting of stockholders to be held in 2023, stockholder proposals must be received by us no later than December 30, 2022, which is 120 days prior to the first anniversary of the mailing date of this proxy, unless the date of the 2023 annual meeting of stockholders is changed by more than 30 days from the anniversary of our 2022 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 2022 annual meeting of stockholders but not included in the proxy statement by March 23, 2023, but not before February 21, 2023, 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 no earlier than the close of business 120 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 2023 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 c/o Chief Legal Officer and Secretary, 45 Sidney Street, Cambridge, Massachusetts 02139.

STOCKHOLDERS SHARING THE SAME ADDRESS

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 2021 annual report to stockholders, which consists of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, to you if you contact us at Blueprint Medicines Corporation, 45 Sidney Street, Cambridge, Massachusetts 02139, Attn: Investor Relations, telephone: (617) 714-6674, e-mail: ir@blueprintmedicines.com. If you would like to receive separate copies of our proxy materials and annual reports in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address, telephone number or e-mail.

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.



BLUEPRINT MEDICINES CORPORATION ATTN: TRACEY L. MCCAIN 45 SIDNEY STREET CAMBRIDGE, MA 02139



VOTE BY INTERNET - www.proxyvote.com or scan the QR Barcode above
Use the Internet to transmit your voting instructions and for electronic delivery of
information up until 11:59 P.M. Eastern Daylight Time on June 20, 2022, the day
before the Annual Meeting. 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.

During The Meeting - Go to www.virtualshareholdermeeting.com/RPMC2022
You may attend the meeting via the Internet and vote during the meeting. Have
the information that is printed in the box marked by the arrow available and follow
the instructions.

VOTE BY PHONE - 1.800.590.5932

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 on June 20, 2022, the day before the Annual Meeting. 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, ofo Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE,	MARK	BLOCKS	BELOW	IN	BLUE	OR	BLACK	INK	AS F	OLLO	OWS:
						_			DDO	vv	-

KEEP THIS PORTION FOR YOUR RECORDS

	THIS PROXY CAR	IS VALID O	NLY WHEN SIGNED AND DATE	D. DETACH AND RETUR	N THIS PORTION ON
The Board of Directors recommends you the director nominees in Proposal 1.	For All u vote FOR	Withhold For All Except	To withhold authority to vote individual nominee(s), mark "Except" and write the number(s) nominee(s) on the line below.	for any For All of the	
1. Election of Directors	0	0 0	¥ .		
Nominees					
			75 W - 27 27		
01) Jeffrey W. Albers 02) M	lark Goldberg, M.D.	03) Nicholas L	ydon, Ph.D.		
The Board of Directors recommends you	u vote FOR proposals 2	and 3.		Fo	or Against Abstair
2. To approve an advisory vote on n	amed executive officer	compensation.			0 0
B. Ratification of the appointment of firm for the fiscal year ending I	of Ernst & Young LLP as December 31, 2022.	the Company's ind	dependent registered public accounti	ng C	0 0
NOTE: The proxies are authorized to before the meeting or any adjournmen			r business as may properly come		
Please sign exactly as your name(s); please give full title as such. Join partnership, please sign in full cor	t owners should each sig	on personally, All	holders must sign. If a corporation	r fiduciary, n or	
Signature (PLEASE SIGN WITHIN BOX)	Date		Signature (Joint Owners)	Date	

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

BLUEPRINT MEDICINES CORPORATION Annual Meeting of Stockholders June 21, 2022 3:30 PM This proxy is solicited by the Board of Directors

The stockholder(s) hereby appoint(s) Kathryn Haviland, Tracey L. McCain and Michael Landsittel, or any of them, as proxies, each with the power to appoint his or her substitute, and hereby authorize(s) 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 Stockholders to be held at 3:30 PM, Eastern Daylight Time, on June 21, 2022, via a live webcast at www.virtualshareholdermeeting.com/BPMC2022, 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.

Continued and to be signed on reverse side