

bluebird bio, Inc.
Form DEF 14A
April 21, 2017

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934

(Amendment No.)

Filed by the Registrant

Filed by a party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to §240.14a-12

bluebird bio, Inc.

(Name of Registrant as Specified In Its Charter)

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

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

- (1) Title of each class of securities to which transaction applies:
- (2) Aggregate number of securities to which transaction applies:
- (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
- (4) Proposed maximum aggregate value of transaction:
- (5) Total fee paid:

Fee paid previously with preliminary materials.

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

- (1) Amount Previously Paid:
 - (2) Form, Schedule or Registration Statement No.:
 - (3) Filing Party:
 - (4) Date Filed:
-

April 21, 2017

Dear Stockholder:

You are cordially invited to attend the 2017 Annual Meeting of Stockholders of bluebird bio, Inc. The meeting will be held on June 8, 2017 at 8:30 a.m. EDT at the offices of the Company, located at 60 Binney Street, Cambridge, Massachusetts.

Details regarding admission to the meeting and the business to be conducted are more fully described in the accompanying Notice of Annual Meeting and Proxy Statement.

At this Annual Meeting, the agenda includes the election of two (2) Class I directors for three-year terms, the approval of executive compensation by advisory vote, and the ratification of the appointment of Ernst & Young LLP as bluebird's independent registered public accounting firm for the fiscal year ending December 31, 2017.

Under Securities and Exchange Commission rules, the Company is providing access to the proxy materials for the Annual Meeting to shareholders via the Internet. Accordingly, you can access the proxy materials and vote at www.proxyvote.com. Instructions for accessing the proxy materials and voting are described below and in the Notice of Annual Meeting that you received in the mail. Your vote is very important. Whether or not you plan to attend the meeting, please carefully review the enclosed proxy statement and then cast your vote, regardless of the number of shares you hold. If you are a stockholder of record, you may vote over the Internet, by telephone, or, if you request to receive a printed set of the proxy materials, by completing, signing, dating and mailing the accompanying proxy card in the return envelope. Submitting your vote via the Internet or by telephone or proxy card will not affect your right to vote in person if you decide to attend the Annual Meeting. If your shares are held in street name (held for your account by a broker or other nominee), you will receive instructions from your broker or other nominee explaining how to vote your shares, and you will have the option to cast your vote by telephone or over the Internet if your voting instruction form from your broker or nominee includes instructions and a toll-free telephone number or Internet website to do so. In any event, to be sure that your vote will be received in time, please cast your vote by your choice of available means at your earliest convenience.

We hope that you will join us on June 8, 2017. Your continuing interest in bluebird is very much appreciated.

Sincerely,

Nick Leschly

President & Chief Executive Officer

NOTICE OF 2017 ANNUAL MEETING OF STOCKHOLDERS

Time 8:30 a.m., Eastern Time

Date Thursday, June 8, 2017

Place The Company's offices at 60 Binney Street, Cambridge, Massachusetts 02142

Purpose To elect Nick Leschly and Mark Vachon as Class I members of the Board of Directors, to serve until the Company's 2020 Annual Meeting of Stockholders and until their successors are duly elected and qualified;

To hold an advisory vote on the compensation paid to the Company's named executive officers;

To ratify the selection of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2017; and

To transact any other business that may properly come before the meeting or any adjournment thereof.

Record Date The Board of Directors has fixed the close of business on April 13, 2017 as the record date for determining stockholders entitled to notice of and to vote at the meeting.

Meeting Admission All stockholders as of the record date, or their duly appointed proxies, may attend the meeting. If you attend, you will be asked to present valid picture identification such as a driver's license or passport. If your bluebird stock is held in a brokerage account or by a bank or other nominee, you are considered the beneficial owner of shares held in street name, and this proxy statement is being forwarded to you by your broker or nominee. As a result, your name does not appear on our list of stockholders. If your stock is held in street name, in addition to picture identification, you should bring with you a letter or account statement showing that you were the beneficial owner of the stock on the record date, in order to be admitted to the meeting.

Voting by Proxy If you are a stockholder of record, please vote via the Internet or, for shares held in street name, please submit the voting instruction form you receive from your broker or nominee, as soon as possible so your shares can be voted at the meeting. You may submit your voting instruction form by mail. If you are a stockholder of record, you may also vote by telephone or by submitting a proxy card by mail. If your shares are held in street name, you will receive instructions from your broker or other nominee explaining how to vote your shares, and you may also have the choice of instructing the record holder as to the voting of your shares over the Internet or by telephone. Follow the instructions on the voting instruction form you received from your broker or nominee.

By order of the Board of Directors,

Jason F. Cole, Secretary

Cambridge, Massachusetts

April 21, 2017

Important Notice Regarding the Availability of Proxy Materials for the bluebird 2017 Annual Meeting of Stockholders to Be Held on June 8, 2017: The Notice of 2017 Annual Meeting of Stockholders, proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, are available at www.bluebirdbio.com by following the link for “Investors & Media.” To obtain directions to our offices in order to attend the Annual Meeting in person, please visit the “Investors & Media – Calendar of Events” section of our website at www.bluebirdbio.com or contact Investor Relations at (339) 499-9300.

BLUEBIRD BIO, INC.

60 BINNEY STREET

CAMBRIDGE, MASSACHUSETTS 02142

PROXY STATEMENT

FOR THE 2017 ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD ON JUNE 8, 2017

AT 8:30 AM EDT

GENERAL INFORMATION

When are this proxy statement and the accompanying material scheduled to be sent to stockholders?

We have elected to provide access to our proxy materials to our stockholders via the Internet. Accordingly, on or about April 21, 2017, we will begin mailing a Notice of Internet Availability of Proxy Materials, or Notice of Internet Availability, and the proxy materials, including the Notice of 2017 Annual Meeting of Stockholders, this proxy statement and accompanying proxy card or, for shares held in street name (held for your account by a broker or other nominee), voting instruction form, and the Annual Report on Form 10-K for the year ended December 31, 2016 will be made available to stockholders on the Internet on the same date.

Why did I receive a Notice of Internet Availability of Proxy Materials instead of a full set of proxy materials?

Pursuant to rules adopted by the Securities and Exchange Commission, or SEC, we are providing access to our proxy materials over the Internet rather than printing and mailing the proxy materials. We believe electronic delivery will expedite the receipt of materials and will help lower our costs and reduce the environmental impact of our annual meeting materials. Therefore, a Notice of Internet Availability will be mailed to holders of record and beneficial owners of our common stock starting on or around April 21, 2017. The Notice of Internet Availability will provide instructions as to how stockholders may access and review the proxy materials, including the Notice of Annual Meeting, proxy statement, proxy card and Annual Report on Form 10-K, on the website referred to in the Notice of Internet Availability or, alternatively, how to request that a copy of the proxy materials, including a proxy card, be sent to them by mail. The Notice of Internet Availability will also provide voting instructions. In addition, stockholders of record may request to receive the proxy materials in printed form by mail or electronically by e-mail on an ongoing basis for future stockholder meetings. Please note that, while our proxy materials are available at the website referenced in the Notice of Internet Availability, and our Notice of Annual Meeting, proxy statement and Annual Report on Form 10-K are available on our website, no other information contained on either website is incorporated by reference in or considered to be a part of this document.

Who is soliciting my vote?

The Board of Directors of bluebird bio, Inc. (the “Company” or “bluebird”) is soliciting your vote for the 2017 Annual Meeting of Stockholders.

When is the record date for the Annual Meeting?

The Board of Directors has fixed the record date for the Annual Meeting as of the close of business on April 13, 2017.

How many votes can be cast by all stockholders?

A total of 40,939,551 shares of common stock of the Company were outstanding on April 13, 2017, and entitled to be voted at the meeting. Each share of common stock is entitled to one vote on each matter.

How do I vote?

If you are a stockholder of record and your shares are registered directly in your name, you may vote:

By Internet. Access the website of the Company's tabulator, Broadridge, at: www.proxyvote.com, using the voter control number printed on the furnished proxy card. Your shares will be voted in accordance with your instructions. You must specify how you want your shares voted or your Internet vote cannot be completed and you will receive an error message. If you vote on the Internet, you may also request electronic delivery of future proxy materials.

By Telephone. Call 1-800-690-6903 toll-free from the U.S., U.S. territories and Canada, and follow the instructions on the enclosed proxy card. Your shares will be voted in accordance with your instructions. You must specify how you want your shares voted or your telephone vote cannot be completed.

1

By Mail. Complete and mail a proxy card in the enclosed postage prepaid envelope to Broadridge. Your proxy will be voted in accordance with your instructions. If you sign and return the enclosed proxy but do not specify how you want your shares voted, they will be voted FOR the director nominees named herein to the Company's Board of Directors, FOR the advisory resolution approving the compensation of the named executive officers, and FOR the ratification of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2017 and will be voted according to the discretion of the proxy holder upon any other business that may properly be brought before the meeting and at all adjournments and postponements thereof. If you are mailed or otherwise receive or obtain a proxy card or voting instruction form, and you choose to vote by telephone or by Internet, you do not have to return your proxy card or voting instruction form.

In Person at the Meeting. If you attend the meeting, be sure to bring a form of personal picture identification with you, and you may deliver your completed proxy card in person, or you may vote by completing a ballot, which will be available at the meeting.

If your shares of common stock are held in street name (held for your account by a broker or other nominee):

By Internet or By Telephone. You will receive instructions from your broker or other nominee if you are permitted to vote by Internet or telephone.

By Mail. You will receive instructions from your broker or other nominee explaining how to vote your shares.

In Person at the Meeting. If you attend the meeting, in addition to picture identification you should both bring an account statement or a letter from the record holder indicating that you owned the shares as of the record date, and contact the broker or other nominee who holds your shares to obtain a broker's proxy card and bring it with you to the meeting.

What are the Board of Director's recommendations on how to vote my shares?

The Board of Directors recommends a vote:

Proposal 1: FOR election of the two Class I director nominees (page 5)

Proposal 2: FOR the advisory resolution approving the compensation of the Company's named executive officers (page 16)

Proposal 3: FOR ratification of the selection of Ernst & Young LLP as the Company's independent registered public accounting firm (page 47)

Who pays the cost for soliciting proxies?

bluebird will pay the cost for the solicitation of proxies by the Board of Directors. The solicitation of proxies will be made primarily by mail and through internet access to materials. Proxies may also be solicited personally, by telephone, fax or e-mail by employees of bluebird without any remuneration to such individuals other than their regular compensation. bluebird will also reimburse brokers, banks, custodians, other nominees and fiduciaries for forwarding these materials to their principals to obtain the authorization for the execution of proxies.

Will my shares be voted if I do not return my proxy?

If your shares are registered directly in your name, your shares will not be voted if you do not vote over the Internet, by telephone, by returning your proxy or by ballot at the Annual Meeting. If your shares are held in street name, your bank, broker or other nominee may under certain circumstances vote your shares if you do not timely return your proxy. Banks, brokers and other nominees can vote customers' unvoted shares on routine matters, but cannot vote such shares on non-routine matters. If you do not timely return a proxy to your bank, broker or other nominee to vote your shares, your bank, broker or other nominee may, on routine matters, either vote your shares or leave your shares

unvoted. Your bank, broker or other nominee cannot vote your shares on any non-routine matter. The election of directors (Proposal 1) and the advisory vote on executive compensation (Proposal 2) are non-routine matters. The ratification of the appointment of our independent registered public accounting firm (Proposal 3) is a routine matter. We encourage you to provide voting instructions to your bank, broker or other nominee by giving your proxy to them. This ensures that your shares will be voted at the Annual Meeting according to your instructions. You should receive directions from your bank, broker or other nominee about how to submit your proxy to them at the time you receive this proxy statement.

Can I change my vote?

You may revoke your proxy at any time before it is voted by notifying the Secretary in writing, by returning a signed proxy with a later date, by transmitting a subsequent vote over the Internet or by telephone prior to the close of the Internet voting facility or the telephone voting facility, or by attending the meeting and voting in person. If your stock is held in street name, you must contact your broker or nominee for instructions as to how to change your vote.

How is a quorum reached?

The presence, in person or by proxy, of holders of at least a majority of the total number of outstanding shares entitled to vote is necessary to constitute a quorum for the transaction of business at the Annual Meeting. Shares held of record by stockholders or brokers, bankers or other nominees who do not return a signed and dated proxy or attend the Annual Meeting in person will not be considered present or represented at the Annual Meeting and will not be counted in determining the presence of a quorum. Abstentions and broker non-votes, if any, will be counted for purposes of determining whether a quorum is present for the transaction of business at the meeting.

What vote is required to approve each item and how are votes counted?

Votes cast by proxy or in person at the Annual Meeting will be counted by the persons appointed by bluebird to act as tabulators for the meeting. The tabulators will count all votes FOR and AGAINST, abstentions and broker non-votes, as applicable, for each matter to be voted on at the Annual Meeting. Abstentions and broker non-votes are not counted as votes cast and, therefore, do not have the effect of votes in opposition to such proposals. A broker non-vote occurs when a nominee holding shares for a beneficial owner does not vote on a particular proposal because the nominee does not have discretionary voting power with respect to that item and has not received instructions from the beneficial owner.

• Proposal 1 – Election of two Class I director nominees

For the election of the two Class I director nominees, each director nominee presented must be elected by a majority of the votes cast in person or by proxy at the Annual Meeting. Director nominees are elected by a majority vote for non-contested director elections. Because the number of director nominees properly nominated for the Annual Meeting does not exceed the number of positions on the Board of Directors to be filled by election at the Annual Meeting, this election of directors is non-contested. To elect a director nominee to the Board of Directors, the votes cast FOR the director nominee must exceed the votes cast AGAINST. Only FOR and AGAINST votes will affect the outcome. Abstentions will have no effect on the voting of Proposal 1. Proposal 1 is a non-routine matter. Therefore, if your shares are held by your bank, broker or other nominee in street name and you do not vote your shares, your bank, broker or other nominee cannot vote your shares on Proposal 1. Shares held in street name by banks, brokers or 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 AGAINST any director nominee and will be treated as broker non-votes. As a result, broker non-votes will have no effect on the voting of Proposal 1.

• Proposal 2 – Advisory vote on executive compensation

For the advisory vote on executive compensation, the votes cast FOR must exceed the votes cast AGAINST to approve, on an advisory basis, the compensation of our named executive officers. Only FOR and AGAINST votes will affect the outcome. Abstentions will have no effect on the voting of Proposal 2. Proposal 2 is a non-routine matter. Therefore, if your shares are held by your bank, broker or other nominee in street name and you do not vote your shares, your bank, broker or other nominee cannot vote your shares on Proposal 2. Shares held in street name by banks, brokers or nominees who indicate on their proxies that they do not have authority to vote the shares on Proposal 2 will not be counted as votes FOR or AGAINST the proposal and will be treated as broker non-votes. As a result, broker non-votes will have no effect on the voting of Proposal 2.

Proposal 3 – Ratification of selection of Ernst & Young LLP as our independent registered public accounting firm
For the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for our 2017 fiscal year, the votes cast FOR must exceed the votes cast AGAINST. Only FOR and AGAINST votes will affect the outcome. Abstentions will have no effect on the voting of Proposal 3. Proposal 3 is a routine matter. Therefore, if your shares are held by your bank, broker or other nominee in street name and you do not vote your shares, your bank, broker or other nominee may vote your shares on Proposal 3.

3

If there are insufficient votes to approve Proposal(s) 1, 2, or 3, your proxy may be voted by the persons named in the proxy to adjourn the Annual Meeting in order to solicit additional proxies in favor of the approval of such proposal. If the Annual Meeting is adjourned or postponed for any purpose, at any subsequent reconvening of the meeting, your proxy will be voted in the same manner as it would have been voted at the original convening of the Annual Meeting unless you withdraw or revoke your proxy. Your proxy may be voted in this manner even though it may have been voted on the same or any other matter at a previous session of the Annual Meeting.

Could other matters be decided at the Annual Meeting?

bluebird does not know of any other matters that may be presented for action at the Annual Meeting. Should any other business come before the meeting, the persons named on the enclosed proxy will have discretionary authority to vote the shares represented by such proxies in accordance with their best judgment. If you hold shares through a broker, bank or other nominee as described above, they will not be able to vote your shares on any other business that comes before the Annual Meeting unless they receive instructions from you with respect to such matter.

What happens if the meeting is postponed or adjourned?

Your proxy may be voted at the postponed or adjourned meeting. You will still be able to change your proxy until it is voted.

How can I find out the results of the voting at the Annual Meeting?

Preliminary voting results will be announced at the Annual Meeting. Final voting results will be published in a Current Report on Form 8-K, or Form 8-K, that we expect to file with the SEC within four business days after the Annual Meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the Annual Meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

What does it mean if I receive more than one proxy card or voting instruction form?

It means that you have multiple accounts at the transfer agent or with brokers. Please complete and return all proxy cards or voting instruction forms to ensure that all of your shares are voted.

Who should I call if I have any additional questions?

If you hold your shares directly, please call Jason F. Cole, Secretary of the Company, at (339) 499-9300. If your shares are held in street name, please contact the telephone number provided on your voting instruction form or contact your broker or nominee holder directly.

PROPOSAL 1: ELECTION OF DIRECTORS

In accordance with Delaware law and our certificate of incorporation and By-laws, the Board of Directors is divided into three classes of approximately equal size. The members of each class are elected to serve a three-year term with the term of office of each class ending in successive years. Nick Leschly and Mark Vachon are the directors whose terms expire at this Annual Meeting and each of Nick Leschly and Mark Vachon has been nominated for and has agreed to stand for re-election to the Board of Directors to serve as a Class I director of the Company until the 2020 Annual Meeting and until his successor is duly elected.

Our By-laws provide for a majority voting standard for the election of directors in uncontested elections, which provides that to be elected, a director nominee must receive a greater number of votes FOR his or her election than votes AGAINST such election. The number of votes cast with respect to that director's election excludes abstentions and broker non-votes with respect to that director's election. In contested elections where the number of director nominees exceeds the number of directors to be elected, the voting standard will be a plurality of the shares present in person or by proxy and entitled to vote. If a director nominee who already serves as a director is not elected and no successor is elected, the resignation policy in our Corporate Governance Guidelines provides that such director will offer to tender his or her resignation to the Board of Directors. Our Nominating and Corporate Governance Committee will make a recommendation to the Board of Directors on whether to accept or reject the resignation, or whether to take some other action. The Board of Directors will act on the Nominating and Corporate Governance Committee's recommendation and publicly disclose its decision within 90 days from the date of the certification of the election results.

It is intended that, unless you give contrary instructions, shares represented by proxies solicited by the Board of Directors will be voted for the election of the two director nominees listed below. We have no reason to believe that any director nominee will be unavailable for election at the Annual Meeting. In the event that one or more director nominees is unexpectedly not available to serve, proxies may be voted for another person nominated as a substitute by the Board of Directors, or the Board of Directors may reduce the number of directors to be elected at the Annual Meeting. Information relating to each director nominee and for each continuing director, including his or her period of service as a director of bluebird, principal occupation and other biographical material is shown below. Pursuant to the By-laws, the Board of Directors has fixed the number of directors at eight (8) as of the date of this year's Annual Meeting of Stockholders, with one position on the Board of Directors vacant. Vacancies on the Board of Directors are filled exclusively by the affirmative vote of a majority of the remaining directors, even if less than a quorum is present, and not by the stockholders. Your proxy cannot be voted for a greater number of persons than the number of director nominees named in this proxy statement

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE

FOR

EACH OF THESE DIRECTOR NOMINEES FOR CLASS I DIRECTOR:

NICK LESCHLY

MARK VACHON

(PROPOSAL 1 ON YOUR PROXY CARD)

DIRECTOR BIOGRAPHIES

The following table sets forth information concerning our directors as of April 21, 2017. The biographical description of each director includes the specific experience, qualifications, attributes and skills that the Board of Directors would expect to consider if it were making a conclusion currently as to whether such person should serve as a director.

CLASS I DIRECTOR NOMINEES

	AGE	DIRECTOR SINCE
Nick Leschly – Mr. Leschly is a Class I director who has served as our President and Chief Executive Officer since September 2010. Previously, he served as our Interim Chief Executive Officer from March 2010 to September 2010. Formerly a partner of Third Rock Ventures, L.P. since its founding in 2007, Mr. Leschly played an integral role in the overall formation, development and business strategy of several of Third Rock’s portfolio companies, including Agios Pharmaceuticals, Inc. and Edimer Pharmaceuticals, Inc. Prior to joining Third Rock, he worked at Millennium Pharmaceuticals, Inc. (now a subsidiary of Takeda), leading several early-stage drug development programs and served as the product and alliance leader for VELCADE. Mr. Leschly also founded and served as Chief Executive Officer of MedXtend Corporation. He received his B.S. in molecular biology from Princeton University and his M.B.A. from Wharton Business School. We believe that Mr. Leschly’s operating and historical experience with our Company gained from serving as our President, Chief Executive Officer and member of the Board of Directors, combined with his experience in the venture capital industry and drug research and development qualify him to serve as a member of our Board of Directors.	44	March 2010

Mark Vachon. – Mr. Vachon is a Class I director who has served as a member of our Board of Directors since July 2014. Since November 2016, Mr. Vachon serves as an Executive Vice President Sales, Integration and Operations at Change Healthcare Holdings, Inc. For over 30 years, Mr. Vachon held a variety of leadership positions across the General Electric organization, and was a company officer beginning in 1999 and a member of GE’s Corporate Executive Council. Mr. Vachon was President and CEO of GE Healthcare Americas from 2009 and 2010, and prior to that he was President and CEO of Global Diagnostics Imaging, GE Healthcare, between 2006 and 2009. Between 2003 and 2006, Mr. Vachon was Executive Vice President and CFO of GE Healthcare. Mr. Vachon serves on the board of trustees of Northeastern University and the Board of Directors of Numotion, and the Charitable Health and Retirement Trust. Mr. Vachon holds a B.S. in Finance from Northeastern University and an M.A. from Boston College. We believe that Mr. Vachon’s experience in financial and executive operating roles and in the healthcare field on a global basis qualify him to serve as a member of our Board of Directors.	58	July 2014
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----	-----------

CURRENT DIRECTORS NOT STANDING FOR

ELECTION AT THE ANNUAL MEETING

	AGE	DIRECTOR SINCE
Wendy L. Dixon, Ph.D. – Dr. Dixon is a Class III director who has served as a member of our Board of Directors since April 2013. In 2012, Dr. Dixon served as Senior Advisor at The Monitor Group. Since 2016, Dr. Dixon has served as a member of the board of directors for a number of biopharmaceutical companies, including Alkermes PLC (NASDAQ: ALKS),	61	April 2013

Incyte Corporation (NASDAQ: INCY), Eleven Biotherapeutics (NASDAQ: EBIO), Voyager Therapeutics, Inc. (NASDAQ: VYGR), and formerly for Orexigen Therapeutics Inc. (NASDAQ: OREX), Furiex Pharmaceuticals, Inc. (NASDAQ: FURX), which was sold to Forest Laboratories, LLC as a subsidiary of Allergan in 2014, Ardea Biosciences, Inc. (NASDAQ: RDEA), which was sold to AstraZeneca PLC in 2012, and Dentsply International Inc. (NASDAQ: XRAY), as well as a private company, Edimer Pharmaceuticals, Inc. Dr. Dixon also served as Chief Marketing Officer and President of Global Marketing for Bristol-Myers Squibb and as a member of the CEO's Executive Committee from 2001 to 2009. She has had an over 30-year career in the pharmaceutical and biotechnology business, combining a technical background and experience in drug development and regulatory affairs with commercial responsibilities in building and leading organizations and launching and growing more than 20 pharmaceutical products including Tagamet, Fosamax, Singulair, Plavix, Abilify, Reyataz and Baraclude. From 1996 to 2001, she was Senior Vice President, Marketing at Merck and prior to that she held executive management positions at West Pharmaceuticals, Osteotech and Centocor, and various positions at SmithKline and French (now GlaxoSmithKline) in marketing, regulatory affairs, project management and as a biochemist. Dr. Dixon received her B.Sc., M.Sc. and Ph.D. from the University of Cambridge (UK). We believe that, among other experience, qualifications, attributes and skills, Dr. Dixon's technical background in drug development, commercialization, marketing and regulatory affairs qualify her to serve as a member of our Board of Directors.

CURRENT DIRECTORS NOT STANDING FOR

ELECTION AT THE ANNUAL MEETING

Daniel S. Lynch – Mr. Lynch is a Class II director who has served as Chairman of our Board of Directors since May 2011. Since October 2007, Mr. Lynch has advised and served as Executive Chair or member of the Board of Directors for a number of private biopharmaceutical companies, which include Stromedix, Inc. (until its acquisition by Biogen Idec in February 2012), Avila Therapeutics, Inc. (until its acquisition by Celgene Corporation in February 2012), RaNA Therapeutics, Inc., Nimbus Discovery, LLC, Edimer Pharmaceuticals, Ember Therapeutics, Inc., Proclara Biosciences, Inc., and Surface Oncology, Inc. He currently serves on the Board of Directors of Blueprint Medicines Corporation (NASDAQ: BPMC), and Eleven Biotherapeutics, Inc. (NASDAQ: EBIO), and formerly for BIND Biosciences, Inc. (NASDAQ: BIND). Mr. Lynch joined Third Rock Ventures, L.P., or Third Rock, as an entrepreneur-in-residence in May 2011, and became a Venture Partner in May 2013. Previously, Mr. Lynch served as Chief Executive and Chief Financial Officer of ImClone Systems Corporation, or ImClone. As ImClone's Chief Executive Officer, he led ImClone through a significant turnaround, helping to restore the company's reputation and to secure FDA approval of ERBITUX (Cetuximab), a novel cancer treatment. As its Chief Financial Officer, Mr. Lynch led negotiations to form the major partnership between ImClone and Bristol-Myers Squibb. Earlier in his career, he served in various financial positions at Bristol-Myers Squibb over a 15-year tenure. He served on the Board of Directors and the Audit Committee of U.S. Oncology, Inc. for five years until December 2010, when it was acquired by McKesson. Mr. Lynch received his B.A. in mathematics from Wesleyan University and his M.B.A. from the Darden Graduate School of Business Administration at the University of Virginia. We believe that Mr. Lynch's experience as Chief Executive Officer and Chief Financial Officer of a public pharmaceutical company and as Executive Chairman and Director for many other life science companies, qualify him to serve as a member of our Board of Directors.

AGE DIRECTOR SINCE
59 May 2011

James Mandell, M.D. – Dr. Mandell is a Class III director who has served as a member of our Board of Directors since January 2014. Dr. Mandell became Chief Executive Officer of Boston Children's Hospital and Children's Medical Center on October 1, 2000, retiring from the position in October 2013. During his tenure, Dr. Mandell was a member of the Board of Trustees and Professor of Surgery at Harvard Medical School. Prior to joining Children's, he served as Dean of Albany Medical College and Professor of Surgery and Pediatrics. Dr. Mandell was promoted from Chief of Urology to Dean of Albany Medical College in 1996. He also served as Executive Vice President for Health Affairs at Albany Medical Center and Executive Medical Director of Albany Medical Center Hospital. Prior to his tenure at Albany Medical College, he was a member of the medical staff at Children's Hospital for nine years, advancing to an associate in surgery with an associate professor appointment at Harvard Medical School. Dr. Mandell serves on the Board of the Franciscan's Hospital for Children, the Board of Beth Israel Deaconess Medical Center, and as Chair of the Board of the Harvard Risk Management Company. Dr. Mandell continues to practice Pediatric Urology at Children's and is the Robert and Dana Smith Distinguished Professor at Harvard Medical School. In addition to a medical degree from the University of Florida College of Medicine, Dr. Mandell holds a Master's in Health Systems Management from Union College, New York. We believe that, among other experience, qualifications, attributes and skills, Dr. Mandell's background as a physician focused on pediatric diseases, and experience as the chief executive officer of a major hospital and medical center, including

72 January 2014

interactions with payers, qualifies him to serve as a member of our Board of Directors.

7

CURRENT DIRECTORS NOT STANDING FOR

ELECTION AT THE ANNUAL MEETING

John M. Maraganore, Ph.D. – Dr. Maraganore is a Class II director who has served as a member of our Board of Directors since January 2012. Since December 2002, Dr. Maraganore has served as the Chief Executive Officer and as a Director of Alnylam Pharmaceuticals, Inc. (NASDAQ: ALNY). From December 2002 to December 2007, Dr. Maraganore served as President of Alnylam. From April 2000 to December 2002, Dr. Maraganore served as Senior Vice President, Strategic Product Development with Millennium Pharmaceuticals, Inc. (now a subsidiary of Takeda) where he was responsible for the company's product franchises in Oncology and Cardiovascular, Inflammatory and Metabolic Diseases. He was previously Vice President, Strategic Planning and M&A and prior to that he was General Manager of Millennium Bio Therapeutics, Inc. a former subsidiary of Millennium. Before Millennium, he served as director of molecular biology and director of market and business development at Biogen Inc. At Biogen, Dr. Maraganore invented and led the discovery and development of Angiomax™ (bivalirudin for injection, formerly Hirulog™) currently marketed by The Medicines Company. Prior to Biogen, he was a scientist at ZymoGenetics, Inc., and The Upjohn Company. Dr. Maraganore is also a director for Agios Pharmaceuticals (NASDAQ: AGIO) and was previously a director of Regulus Therapeutics, Inc. (NASDAQ: RGLS) through May 2014. Dr. Maraganore is a member of the Biotechnology Industry Organization (BIO) Board and the BIO Executive Committee. Dr. Maraganore holds a B.A. in biological sciences from the University of Chicago and an M.S. and a Ph.D. in biochemistry and molecular biology from the University of Chicago. We believe that Dr. Maraganore's experience as chief executive officer and president of a public biotechnology company and as a board member of other public biotechnology companies qualify him to serve as a member of our Board of Directors.

AGE DIRECTOR SINCE
54 January 2012

David P. Schenkein, M.D. – Dr. Schenkein is a Class III director who has served as a member of our Board of Directors since April 2013. Since August 2009, Dr. Schenkein has served as the Chief Executive Officer of Agios Pharmaceuticals, Inc. From April 2006 to July 2009, Dr. Schenkein served as Senior Vice President of oncology development of Genentech. Dr. Schenkein is also a Director at Agios Pharmaceuticals, Inc. (NASDAQ: AGIO), Foundation Medicine, Inc. (NASDAQ: FMI) and Denali Therapeutics. Dr. Schenkein received his B.A. in chemistry from Wesleyan University and his M.D. from Upstate Medical School. We believe that Dr. Schenkein's experience as Chief Executive Officer of Agios Pharmaceuticals and his membership on the Board of Directors of a number of biopharmaceutical companies qualify him to serve as a member of our Board of Directors.

59 April 2013

EXECUTIVE OFFICERS

The following table sets forth information regarding our executive officers, as of April 21, 2017:

Name	Age	Position(s)
Executive Officers:		
Nick Leschly(1)	44	President, Chief Executive Officer and Director
Jeffrey T. Walsh	51	Chief Financial and Strategy Officer (Principal Financial Officer)
David Davidson, M.D.	53	Chief Medical Officer
Philip Gregory, D. Phil.	46	Chief Scientific Officer
Susanna G. High	49	Chief Operating Officer
Jason F. Cole, Esq.	44	Chief Legal Officer and Secretary
Eric Sullivan	37	Vice President, Finance and Treasurer (Principal Accounting Officer)

(1) Nick Leschly is also a director of the Company and his biographical information appears on page 6.

Jeffrey T. Walsh – Mr. Walsh has served as our Chief Financial and Strategy Officer and Principal Financial Officer since March 2016. Prior to this role, he served as our Chief Operating Officer since May 2011 and also previously served as our Principal Financial Officer from June 2013 to November 2014. Mr. Walsh has over 25 years of experience in executive leadership positions with responsibility for finance, business development, commercial and business operations, strategic planning and legal functions with established and emerging public and private life sciences companies. From November 2008 to February 2011, Mr. Walsh served as chief business officer of Taligen Therapeutics, Inc. where he played a key role in the growth of the company and the ultimate sale of Taligen Therapeutics, Inc. to Alexion Pharmaceuticals, Inc. in January 2011. Mr. Walsh started his career at SmithKline Beecham Corporation in finance and worldwide business development roles. He subsequently held senior business development, finance and operations roles at PathoGenesis Corp. (acquired by Chiron Corporation), Allscripts Healthcare Solutions Inc., EXACT Sciences Corporation and Inotek Pharmaceuticals Corp. Mr. Walsh received his B.A. in sociology and economics from Yale University and his M.B.A. from the Kellogg Graduate School of Management at Northwestern University.

David Davidson, M.D. – Dr. Davidson has served as our Chief Medical Officer since February 2012. Prior to joining us, Dr. Davidson served as a senior medical director at Genzyme Corporation, where he led clinical research for programs in Phases I through IV across a wide range of therapeutic areas for more than a decade. Most recently, Dr. Davidson was the medical leader for Genzyme’s gene therapy and Pompe disease enzyme replacement therapy programs. In addition to Dr. Davidson’s translational medicine experience, he has also worked on a number of commercial products, including Fabrazyme and Myozyme/Lumizyme, and was integral in crafting the new drug application that resulted in the approval of Welchol. Prior to Genzyme, Dr. Davidson was a medical director at GelTex Pharmaceuticals Inc. Previously, he completed clinical and research fellowships in infectious diseases at the Harvard Longwood Combined Infectious Diseases Program. Dr. Davidson received his B.A. from Columbia University and his M.D. from New York University School of Medicine. In addition, he completed an internal medicine internship, residency training and an endocrinology research fellowship at the University of Chicago Hospitals.

Philip Gregory, D. Phil. – Dr. Gregory has served as our Chief Scientific Officer since June 2015. Prior to joining us, Dr. Gregory was formerly with Sangamo BioSciences, where he held multiple leadership positions over a nearly fifteen-year tenure, most recently serving as Chief Scientific Officer and Senior Vice President, Research. In this role, he was responsible for the scientific direction and strategic research planning for the company. Dr. Gregory played an integral role in Sangamo’s partnerships and drove early discovery and development for several product candidates in multiple therapeutic areas. Prior to joining Sangamo, he was a postdoctoral fellow at Ludwig-Maximilians-Universität

in Munich, Germany. Dr. Gregory holds a D. Phil in biochemistry from Oxford University, Keble College and a B.Sc. in microbiology from Sheffield University.

Susanna G. High – Ms. High has served as our Chief Operating Officer since November 2016. Prior to joining us, Ms. High served in roles with increasing responsibility for strategy, business planning, portfolio and program management, alliance management, information technology and broader organizational growth initiatives at Alnylam Pharmaceuticals, Inc. At Alnylam, she served as Senior Vice President Strategy & Business Integration from June 2015 to September 2016, after serving as Vice President Business Planning & Program Management from June 2008 through June 2015, and as Senior Director from February 2007 through June 2008. Prior to her time at Alnylam, Ms. High worked at Millennium Pharmaceuticals, Inc. (now a subsidiary of Takeda) from 2001 to 2007, serving first as Director, Business Operations and then as Director, Corporate Strategy. From 1996 to 2001, Ms. High was a management consultant at Accenture in the Strategic Services Practice, where her clients included biopharmaceutical companies. Ms. High received her B.A. in Economics and Business Management, Financial Planning and Analysis from Università ‘Luigi Bocconi’ and her M.B.A. from the Massachusetts Institute of Technology – Sloan School of Management.

Jason F. Cole, Esq. – Mr. Cole has served as our Chief Legal Officer and Secretary since March 2016. Prior to this role, he served as our Senior Vice President, General Counsel and Secretary since March 2014. Prior to joining us, Mr. Cole served as Executive Vice President, Corporate Development and General Counsel at Zalicus Inc. from September 2011 through March 2014, and as Senior Vice President, General Counsel of Zalicus and its predecessor company CombinatoRx, Incorporated from January 2006 to September 2011. From 1999 to 2006, Mr. Cole was a corporate and securities attorney at Ropes & Gray LLP. Mr. Cole received an A.B. in government from Dartmouth College and a J.D. from Columbia University School of Law.

Eric Sullivan – Mr. Sullivan has served as our Vice President, Finance and Treasurer since March 2016. Prior to this role, he served as our Senior Director, Finance since November 2013. Prior to joining us, Mr. Sullivan served as Corporate Controller of Merrimack Pharmaceuticals, Inc. from January 2011 to November 2013 and as Assistant Controller of Merrimack Pharmaceuticals from September 2008 to December 2010. Prior to Merrimack Pharmaceuticals, Mr. Sullivan held positions at NSTAR and PricewaterhouseCoopers LLP. Mr. Sullivan received his B.S. in Accountancy from Bentley University (formerly known as Bentley College) and is a Certified Public Accountant in Massachusetts.

THE BOARD OF DIRECTORS AND ITS COMMITTEES

Board Composition

We currently have seven directors and the terms of office of the directors are divided into three classes:

- Class I, whose term will expire at the Annual Meeting of Stockholders to be held in 2020;
- Class II, whose term will expire at the Annual Meeting of Stockholders to be held in 2018; and
- Class III, whose term will expire at the Annual Meeting of Stockholders to be held in 2019.

Class I consists of Mr. Leschly and Mr. Vachon, Class II consists of Mr. Lynch and Dr. Maraganore, and Class III consists of Dr. Dixon, Dr. Mandell and Dr. Schenkein. At each Annual Meeting of Stockholders, the successors to directors whose terms will then expire shall serve from the time of election and qualification until the third Annual Meeting following election and until their successors are duly elected and qualified. A resolution of the Board of Directors may change the authorized number of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This classification of the Board of Directors may have the effect of delaying or preventing changes in control or management of our company.

Board Independence

Our Board of Directors has determined, upon the recommendation of our Nominating and Corporate Governance Committee, that each of our directors, except for Nick Leschly, who serves as our President and Chief Executive Officer, has no relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and is independent within the meaning of the director independence standards of the Nasdaq Stock Market, or NASDAQ, rules and the SEC. At least annually, our Board of Directors will evaluate all relationships between us and each director in light of relevant facts and circumstances for the purposes of determining whether a material relationship exists that might signal a potential conflict of interest or otherwise interfere with such director's ability to satisfy his or her responsibilities as an independent director. Based on this evaluation, our Board of Directors will make an annual determination of whether each director is independent within the meaning of NASDAQ, and the SEC independence standards.

Board Meetings and Attendance

Our Board of Directors held six (6) meetings during the fiscal year ended December 31, 2016. Each of the directors attended at least 75% of the meetings of the Board of Directors and the committees of the Board of Directors on which he or she served during the fiscal year ended December 31, 2016 (in each case, which were held during the period for which he or she was a director and/or a member of the applicable committee). bluebird encourages its directors to attend the Annual Meeting of Stockholders.

Board Committees

Our Board of Directors has established three standing committees: the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee, each of which is comprised solely of independent directors, and is described more fully below. Each of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee operates pursuant to a written charter and each committee reviews and assesses the adequacy of its charter and submits its charter to the Board of Directors for approval. The charters for the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee

are all available on our website (www.bluebirdbio.com) under “Investors & Media” at “Corporate Governance.”

Audit Committee

Our Audit Committee is currently composed of Dr. Dixon, Mr. Lynch, and Mr. Vachon, with Mr. Vachon serving as chairman of the committee. Our Board of Directors has determined that each member of the Audit Committee meets the independence requirements of Rule 10A-3 under the Exchange Act and the applicable listing standards of NASDAQ. Our Board of Directors has determined that Mr. Lynch and Mr. Vachon are “audit committee financial experts” within the meaning of the SEC regulations and applicable listing standards of NASDAQ. During the fiscal year ended December 31, 2016, the Audit Committee met four times. The report of the Audit Committee is included in this Proxy Statement under “Report of the Audit Committee.” The Audit Committee’s responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;

- approving audit and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the audit plan with the 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;
- 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;
- 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 the rules of the SEC to be included in our annual proxy statement;
- reviewing all related party transactions for potential conflict of interest situations and approving all such transactions;
- monitoring compliance with our investment policy; and
- reviewing quarterly earnings releases and scripts.

Compensation Committee

Our Compensation Committee is currently composed of Dr. Dixon, Dr. Maraganore and Mr. Lynch, with Mr. Lynch serving as chairman of the committee. Our Board of Directors has determined each member of the Compensation Committee is "independent" as defined under the applicable listing standards of NASDAQ. In addition, each member qualifies as an "outside director" within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended, and as a non-employee director, as defined in Rule 16b-3 of the Exchange Act. During the fiscal year ended December 31, 2016, the Compensation Committee met six times. The Compensation Committee's responsibilities include:

- annually reviewing and approving corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate goals and objectives and determining the compensation of our Chief Executive Officer;
- reviewing and approving the compensation of our other executive officers and certain other members of senior management;
- appointing, compensating and overseeing the work of any compensation consultant, legal counsel or other advisor retained by the Compensation Committee;
- conducting the independence assessment outlined in NASDAQ rules with respect to any compensation consultant, legal counsel or other advisor retained by the Compensation Committee;
- annually reviewing and reassessing the adequacy of the committee charter in its compliance with the listing requirements of NASDAQ;
- reviewing and establishing our overall management compensation, philosophy and policy;
- overseeing and administering our compensation and similar plans;
- reviewing and approving our policies and procedures for the grant of equity-based awards;
- reviewing and making recommendations to the Board of Directors with respect to director compensation;

- reviewing and discussing with management the compensation discussion and analysis to be included in our annual proxy statement or Annual Report on Form 10-K; and
- reviewing and discussing with the Board of Directors corporate succession plans for our Chief Executive Officer and other key officers.

Historically, our Compensation Committee has made most of the significant adjustments to annual compensation, determined bonus and equity awards and established new performance objectives at one or more meetings held during the first and last quarters of the year. However, our Compensation Committee also considers matters related to individual compensation, such as compensation for new executive hires, as well as high-level strategic issues, such as the efficacy of our compensation strategy, potential modifications to that strategy and new trends, plans or approaches to compensation, at various meetings throughout the year. Generally, the Compensation Committee's process comprises two related elements: the determination of compensation levels and the establishment of performance objectives for the current year. For executives other than our Chief Executive Officer, our Compensation Committee solicits and considers evaluations and recommendations submitted to the Compensation Committee by our Chief Executive Officer. In the case of our Chief Executive Officer, the evaluation of his performance is conducted by the Compensation Committee, which determines any adjustments to his compensation as well as awards to be granted. For all executives and directors as part of its deliberations, the Compensation Committee may review and consider, as appropriate, materials such as financial reports and projections, operational data, tax and accounting information, tally sheets that set forth the total compensation that may become payable to executives in various hypothetical scenarios, executive and director stock ownership information, company stock performance data, analyses of historical executive compensation levels and current Company-wide compensation levels and recommendations of our Chief People Officer, including analyses of executive and director compensation paid at a peer group of other companies approved by our Compensation Committee.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee is composed of Dr. Mandell and Dr. Schenkein, with Dr. Schenkein serving as chairman of the committee. Our Board of Directors has determined that each member of the Nominating and Corporate Governance Committee is "independent" as defined under the applicable listing standards of NASDAQ. During fiscal year ended December 31, 2016, the Nominating and Corporate Governance Committee met three times. The Nominating and Corporate Governance Committee's responsibilities include:

- developing and recommending to the Board of Directors criteria for membership of the Board of Directors and committees;
- establishing procedures for identifying and evaluating Board of Directors candidates, including candidates 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 committees of the Board of Directors;
 - developing and recommending to the Board of Directors a set of corporate governance guidelines; and
- overseeing the evaluation of the Board of Directors and management. Our Board of Directors may establish other committees from time to time.

Identifying and Evaluating Director Nominees

Our Board of Directors is responsible for selecting its own members. The Board of Directors delegates the selection and nomination process to the Nominating and Corporate Governance Committee, with the expectation that other members of the Board of Directors, and of management, will be requested to take part in the process as appropriate.

Generally, our Nominating and Corporate Governance Committee identifies candidates for director nominees in consultation with management, through the use of search firms or other advisors, through the recommendations submitted by stockholders or through such other methods as the Nominating and Corporate Governance Committee deems to be helpful to identify candidates. Once candidates have been identified, our Nominating and Corporate Governance Committee confirms that the candidates meet all of the minimum qualifications for director nominees established by the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee may gather information about the candidates through interviews, detailed questionnaires, background checks or any other means that the Nominating and Corporate Governance Committee deems to be appropriate in the evaluation process. The Nominating and Corporate Governance Committee then meets as a group to discuss and evaluate the qualities and skills of each candidate, both on an individual basis and taking into account the overall composition and needs of our Board of Directors. Based on the results of the evaluation process, the Nominating and Corporate Governance Committee recommends candidates for the Board of Directors' approval as director nominees for election to the Board of Directors.

Minimum Qualifications

Our Nominating and Corporate Governance Committee will consider, among other things, the following qualifications, skills and attributes when recommending candidates for the Board's selection as director nominees for the Board and as candidates for appointment to the Board's committees. A director nominee shall have the highest personal and professional integrity, shall have demonstrated exceptional ability and judgment, and shall be most effective, in conjunction with the other director nominees to the Board, in collectively serving the long-term interests of the stockholders.

In evaluating proposed director candidates, our Nominating and Corporate Governance Committee may consider, in addition to the minimum qualifications and other criteria for board membership approved by the Board from time to time, all facts and circumstances that it deems appropriate or advisable, including, among other things, diversity and is not limited to race, gender or national origin, the skills of the proposed director candidate, his or her depth and breadth of professional experience or other background characteristics, his or her independence and the needs of the Board. We have no formal policy regarding board diversity. Our Nominating and Corporate Governance Committee's priority in selecting board members is identification of persons who will further the interests of our company through his or her established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, and professional and personal experiences and expertise relevant to our growth strategy. The Nominating and Corporate Governance Committee will consider candidates recommended by stockholders. The policy adopted by the Nominating and Corporate Governance Committee provides that candidates recommended by stockholders are given appropriate consideration in the same manner as other candidates.

Non-Management Director Meetings

In addition to the meetings of the committees of the Board of Directors described above, in connection with the Board of Directors meetings, the non-management directors met four times in executive session during the fiscal year ended December 31, 2016. The Chairman of the Board of Directors presides at these executive sessions. The Audit Committee and the Board of Directors have established a procedure whereby interested parties may make their concerns known to non-management directors, which is described on our website.

Leadership structure and risk oversight

Our Board of Directors is currently chaired by Mr. Lynch. As a general policy, our Board of Directors believes that separation of the positions of chairman and chief executive officer reinforces the independence of the Board of Directors from management, creates an environment that encourages objective oversight of management's

performance and enhances the effectiveness of the Board of Directors as a whole. As such, Mr. Leschly serves as our president and chief executive officer while Mr. Lynch serves as our chairman of the Board of Directors but is not an officer.

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

Each of the committees 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 Financial and Strategy Officer, our Chief Legal Officer and our Principal Accounting Officer all periodically provide reports to the Audit Committee and are 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. The Audit Committee oversees the operation of our risk management program, including the identification of the primary risks associated with our business and periodic updates to such risks, and reports to our Board of Directors regarding these activities.

Compensation Committee interlocks and insider participation

Dr. Dixon, Dr. Maraganore, and Mr. Lynch served as members of our Compensation Committee during the year ended December 31, 2016. None of the members of our Compensation Committee has at any time been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our Board of Directors or Compensation Committee. For a description of transactions between us and members of our Compensation Committee and affiliates of such members, please see "Certain relationships and related party transactions."

PROPOSAL NO. 2—ADVISORY VOTE ON EXECUTIVE COMPENSATION

Our Board of Directors is committed to excellence in governance. As part of that commitment, and as required by Section 14A(a)(1) of the Exchange Act, our Board of Directors is providing the stockholders with an opportunity to approve, on a non-binding, advisory basis, the compensation of the Company's named executive officers.

As described below under "Executive Compensation—Compensation Discussion and Analysis," we have developed a compensation policy that is designed to attract and retain key executives responsible for our success and motivate management to enhance long-term stockholder value. We believe our compensation policy strikes an appropriate balance between the implementation of responsible, measured compensation practices and the effective provision of incentives for our named executive officers to exert their best efforts for our success.

For the reasons discussed above, the Board of Directors unanimously recommends that stockholders vote in favor of the following resolution:

"RESOLVED, that the Company's stockholders hereby approve, on an advisory basis, the compensation of the named executive officers, as disclosed in the Company's proxy statement for the 2017 Annual Meeting of Stockholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, Summary Compensation Table and the other compensation related tables and disclosure."

The resolution will be approved, on an advisory basis, if the votes cast FOR exceed the votes cast AGAINST the proposal. Abstentions and broker non-votes will have no effect on the voting of this proposal. As this vote is advisory, it will not be binding upon the Board of Directors or the Compensation Committee and neither our Board of Directors nor the Compensation Committee will be required to take any action as a result of the outcome of this vote. However, our Board of Directors and the Compensation Committee value the opinions of our stockholders, and the Compensation Committee will carefully consider the outcome of this vote when considering future executive compensation policies. We will hold an advisory vote to approve the compensation of our named executive officers annually until the next vote on the advisory frequency of such advisory votes, which will occur no later than our 2021 Annual Meeting of Stockholders.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE

FOR

THE ADVISORY RESOLUTIONS APPROVING THE COMPANY'S EXECUTIVE COMPENSATION

(PROPOSAL 2 ON YOUR PROXY CARD)

EXECUTIVE OFFICER AND DIRECTOR COMPENSATION

Compensation Discussion and Analysis

Our Compensation Committee is responsible for overseeing the total compensation of our senior management team, which is comprised of our executive officers and certain other senior managers. In this capacity, our Compensation Committee designs, implements, reviews and approves all compensation for our Chief Executive Officer and our other named executive officers. This section discusses the principles underlying our policies and decisions with respect to the compensation of certain of our named executive officers, and all material factors relevant to an analysis of these policies and decisions. Our named executive officers as of the end of our last completed fiscal year on December 31, 2016, were:

- Nick Leschly, our Chief Executive Officer and Principal Executive Officer;
- Jeffrey T. Walsh, our Chief Financial and Strategy Officer and Principal Financial Officer;
- David Davidson, M.D., our Chief Medical Officer;
- Philip Gregory, D. Phil., our Chief Scientific Officer;
- Susanna G. High, our Chief Operating Officer; and
- James M. DeTore, our former Chief Financial Officer.

James M. DeTore served as our Chief Financial Officer and Principal Financial Officer until March 1, 2016, at which time Mr. Walsh became our Chief Financial and Strategy Officer and Principal Financial Officer. Mr. DeTore's employment with the Company ended on March 18, 2016.

Stockholder engagement

At our 2016 Annual Meeting of Stockholders, we conducted our annual non-binding advisory vote on the compensation of our named executive officers, commonly referred to as a "say-on-pay" vote, in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Over 90% of the votes cast by stockholders on this proposal were cast in support of the compensation paid to our named executive officers. While this vote is considered to be a non-binding advisory vote, our Compensation Committee and Board of Directors value the opinions of our stockholders and seriously consider the voting results when making future executive compensation decisions. Given the strong level of support evidenced by last year's say-on-pay vote, our Compensation Committee determined that our stockholders were supportive of our current executive compensation philosophy and program. As a result, our Compensation Committee decided to maintain our general approach to executive compensation and made no significant changes to our executive compensation program. Nevertheless, our Compensation Committee and Board of Directors will continue to monitor the executive compensation program to ensure it aligns the interests of our executive officers with the interests of our stockholders and adequately addresses any stockholder concerns that may be expressed in future votes.

Consistent with the recommendation of our Board of Directors and the preference of our stockholders as reflected in the non-binding advisory vote on the frequency of future "say-on-pay" votes conducted at our 2015 Annual Meeting of Stockholders, we intend to provide for annual advisory votes on the compensation of our named executive officers.

Executive Summary and Company Background

We are a clinical-stage biotechnology company committed to developing potentially transformative gene therapies for severe genetic diseases and cancer. With our lentiviral-based gene therapy and gene editing capabilities, we have built an integrated product platform with broad potential application in these areas.

The goal of our Compensation Committee is to ensure that our compensation programs are 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. Key elements of our compensation programs include the following:

Compensation Element	Purpose	Features
Base salary	To attract and retain highly skilled executives.	Fixed component of pay to provide financial stability, based on responsibilities, experience, individual contributions and peer company data.
Annual cash incentive program	To promote and reward the achievement of key short-term strategic and business goals of the company as well as individual performance; to motivate and attract executives.	Variable component of pay based on annual quantitative and qualitative company and individual goals.
Equity incentive compensation	To encourage executives and other employees to focus on long-term company performance; to promote retention; to reward outstanding company and individual performance.	Typically subject to multi-year vesting based on continued service and are primarily in the form of stock options and restricted stock units, the value of which depends on the performance of our common stock price, in order to align employee interests with those of our stockholders over the longer-term.

In addition to our direct compensation elements, the following features of our compensation program are designed to align our executive team with stockholder interests and with market best practices:

What We Do	What We Don't Do
Maintain an industry-specific peer group for benchmarking pay	× Allow hedging or pledging of equity
Target pay based on market norms	× Re-price stock options
Deliver executive compensation primarily through performance-based pay	× Provide excessive perquisites
Have a clawback policy covering cash and equity incentive compensation paid to our Chief Executive Officer and other executive officers	× Provide supplemental executive retirement plans
Set challenging short- and long-term incentive award goals	× Provide tax gross-up payments for any change-of-control payments

Offer market-competitive benefits for executives that are consistent with the rest of our employees

Stock ownership guidelines applicable to our senior executive officers and non-employee directors

Consult with an independent compensation advisor on compensation levels and practices

As described below, during 2016, we made significant progress on our clinical development and business goals, including the following that impacted executive compensation:

- Initiating our CRB-401 study of the bb2121 product candidate in relapsed/ refractory multiple myeloma, and reporting preliminary clinical data from our CRB-401 study at a major medical meeting;
- Reporting interim clinical data from our Northstar, HGB-205 and HGB-206 clinical studies of our LentiGlobin product candidate at a major medical meeting;