bluebird bio, Inc
Form DEF 14A
April 24, 2015

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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 x

Filed by a party other than the Registrant o

Check the appropriate box:

- " Preliminary Proxy Statement
- "Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- x 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):

x 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:
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(3)Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
(4) Proposed maximum aggregate value of transaction:
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"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 24, 2015

Dear Stockholder:

You are cordially invited to attend the 2015 Annual Meeting of Stockholders of bluebird bio, Inc. The meeting will be held on June 4, 2015 at 8:30 a.m. EDT at the offices of the Company, located at 150 Second Street, Third Floor, 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 II directors for three-year terms, the ratification of the appointment of Ernst & Young LLP as bluebird's independent registered public accounting firm for the fiscal year ending December 31, 2015, the approval, by non-binding vote, of executive compensation and the recommendation, by non-binding vote, of the frequency of future, non-binding advisory votes on executive compensation.

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 4, 2015. Your continuing interest in bluebird is very much appreciated.

Sincerely,

Nick Leschly

President & Chief Executive Officer

NOTICE OF 2015 ANNUAL MEETING OF STOCKHOLDERS

Time 8:30 a.m., Eastern Time

Date Thursday, June 4, 2015

Place The Company's offices at 150 Second Street, Third Floor, Cambridge, Massachusetts

Purpose To elect Daniel S. Lynch and John M. Maraganore as Class II members of the Board of Directors, to serve until the Company's 2018 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 hold an advisory vote to determine the frequency of future stockholder advisory votes 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, 2015; and

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

Record DateThe Board of Directors has fixed the close of business on April 10, 2015 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 24, 2015

Important Notice Regarding the Availability of Proxy Materials for the bluebird 2015 Annual Meeting of Stockholders to Be Held on June 4, 2015: The Notice of 2015 Annual Meeting of Stockholders, proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, as amended, 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.

150 SECOND STREET

THIRD FLOOR

CAMBRIDGE, MASSACHUSETTS 02141

PROXY STATEMENT

FOR THE 2015 ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD ON JUNE 4, 2015

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 24, 2015, 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 2015 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 ending December 31, 2014 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 28, 2015. 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 2015 Annual Meeting of Stockholders.

When is the record date for the Annual Meeting?

The Company's Board of Directors has fixed the record date for the Annual Meeting as of the close of business on April 10, 2015.

How many votes can be cast by all stockholders?

A total of 32,776,482 shares of common stock of the Company were outstanding on April 10, 2015 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.
- ·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 nominees named herein to the Company's Board of Directors, FOR the approval of compensation of the named executive officers and for holding an advisory vote on the compensation of the Company's named executive officers every THREE years, and FOR the ratification of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2015 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's recommendations on how to vote my shares?

The Board of Directors recommends a vote:

Proposal 1: FOR election of the two Class II directors (page 5)

Proposal 2: FOR the advisory resolution approving the compensation of the Company's named executive officers (page 15)

Proposal 3: FOR holding an advisory vote on the compensation of the Company's named executive officers every THREE years (page 16)

Proposal 4: FOR ratification of the selection of Ernst & Young LLP as the Company's independent registered public accounting firm (page 43)

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.

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.

What vote is required to approve each item?

The two nominees for election as Class II directors who receive a plurality of the votes cast for election of directors shall be elected directors (Proposal 1). A majority of votes cast is necessary for the approval of the advisory resolution on the compensation of the Company's named executive officers (Proposal 2). A plurality of votes casts is necessary for the approval of the advisory vote on the frequency of advisory votes on the compensation of the Company's named executive officers (Proposal 3). This means that the option that receives the most votes will be recommended by the stockholders to the Board of Directors. Abstentions and broker non-votes are not counted for the advisory vote on frequency of advisory votes on the Company's executive compensation and, therefore, will have no effect on the outcome of the proposal. A majority of votes cast is necessary for ratification of the selection of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2015 (Proposal 4).

If there are insufficient votes to approve Proposal(s) 1, 2, 3, or 4, 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.

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" (i.e., shares represented at the meeting held by brokers, bankers or other nominees as to which instructions have not been received from the beneficial owners or persons entitled to vote such shares and, with respect to one or more (but not all) issues), if any, will be counted for purposes of determining whether a quorum is present for the transaction of business at the meeting.

How is the vote 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," "against," to "withhold," frequency and abstentions and broker non-votes (i.e., where a broker has not received voting instructions from the beneficial owner and for which the broker does not have discretionary power to vote on a particular matter), as applicable, for each matter to be voted on at the Annual Meeting. Shares represented by proxies that withhold authority to vote for a nominee for election as a director will not be counted as votes "for" a director. Shares properly voted to "abstain" on a particular matter and broker non-votes are treated as having not voted on the particular matter and will therefore not affect the outcome of Proposals 1 and 3, but will be the same as a vote "against" Proposals 2 and 4.

Under the rules that govern brokers holding shares for their customers, brokers who do not receive voting instructions from their customers have the discretion to vote uninstructed shares on routine matters, but do not have discretion to vote such uninstructed shares on non-routine matters. Only Proposal 4, the ratification of the selection of Ernst & Young LLP, is considered a routine matter where brokers are permitted to vote shares held by them without instruction. If your shares are held through a broker, those shares will not be voted in Proposals 1, 2 and 3 unless you affirmatively provide the broker instructions on how to vote on these non-routine matters.

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 the Company's 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. Daniel S. Lynch and John M. Maraganore are the directors whose terms expire at this Annual Meeting and each of Mr. Lynch and Dr. Maraganore has been nominated for and has agreed to stand for re-election to the Board of Directors to serve as a Class II director of the Company until the 2018 Annual Meeting and until his successor is duly elected. 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.

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 nominees listed below as director nominees. The vote of a plurality of the votes cast at the meeting will be required for the election of the Class II director nominees. Broker non-votes and votes withheld will not be treated as votes cast for this purpose and, therefore, will not affect the outcome of the election. bluebird has no reason to believe that any nominee will be unavailable for election at the Annual Meeting. In the event that one or more 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 nominee for election as director 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.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE

FOR

EACH OF THESE NOMINEES FOR CLASS II DIRECTOR

(PROPOSAL 1 ON YOUR PROXY CARD)

DIRECTOR BIOGRAPHIES

The following table sets forth information concerning our directors as of April 24, 2015. 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 II DIRECTOR NOMINEES

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), Nimbus Discovery, LLC, Edimer Pharmaceuticals and Ember Therapeutics, Inc. He serves on the board of directors of BIND Biosciences, Inc., Eleven Biotherapeutics, Inc., RaNA Therapeutics, Inc., and Blueprint Medicines, Inc. 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 Weslevan 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.

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. 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. (now Biogen Idec, Inc.). Prior to Biogen, Dr. Maraganore was a scientist at ZymoGenetics, Inc., and The Upjohn Company. Dr. Maraganore is also a director for Agios Pharmaceuticals and was previously a director of Regulus Therapeutics, Inc. (through May 2014). In addition, he

AGE DIRECTOR SINCE 57 May 2011

52 January 2012

serves as a Venture Partner at Third Rock Ventures, LLC. 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 pharmaceutical company and as a board member of other public pharmaceutical companies qualify him to serve as a member of our board of directors.

CURRENT DIRECTORS NOT STANDING FOR

ELECTION AT THE ANNUAL MEETING

AGE DIRECTOR SINCE 59 April 2013

Wendy L. Dixon, Ph.D. – Dr. Dixon is a Class III director who has served as a member of our 59 board of directors since April 2013. In 2012, Dr. Dixon was a principal at Great Meadow Consulting LLC and in 2010, she served as senior advisor at The Monitor Group. Since 2005, Dr. Dixon has advised and consulted and in some instances served as a member of the board of director for a number of biopharmaceutical companies, including Alkermes PLC, Eleven Biotherapeutics, Incyte Corporation, Orexigen Therapeutics Inc. and Edimer Pharmaceuticals Inc. Dr. Dixon was formerly on the board of Ardea Biosciences, Inc. (sold to AstraZeneca PLC in 2012), Dentsply International, and Furiex Pharmaceuticals Inc. (sold to Actavis in 2014). 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, Revataz 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.

April 2011

Steven Gillis, Ph.D. - Dr. Gillis is a Class I director who has served as a member of our board 63 of directors since April 2011. Since 2005, Dr. Gillis has been a managing director at ARCH Venture Partners, a venture capital firm. From 1994 to 2005, Dr. Gillis served as chief executive officer and chairman of the board of directors of Corixa Corporation, which he co-founded in October 1994. Previously, Dr. Gillis served as a director, head of research and development, chief scientific officer and acting chief executive officer of Immunex Corporation, which he co-founded. As a former director and chairman of Trubion Pharmaceuticals, Inc., Dr. Gillis led its acquisition by Emergent BioSolutions in the fall of 2010. Dr. Gillis currently serves as a director of Shire plc, Accelerator Corporation, Oncofactor Corp., Pulmatrix, Inc., and serves as director and chairman of Faraday Pharmaceuticals, Inc., VentiRX Pharmaceuticals, Inc., Theraclone Sciences, Inc., Lycera Corp., PhaseRx, Inc., and VBI Vaccines, Inc. Dr. Gillis received his B.A. in biology and English from Williams College and his Ph.D. in biological science from Dartmouth College. We believe that Dr. Gillis's experience in the venture capital industry, particularly with biotech and pharmaceutical companies, combined with his experience in molecular and tumor immunology, qualify him to serve as a member of our board of directors.

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,

42 March 2010

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., 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 operation 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.

CURRENT DIRECTORS NOT STANDING FOR

ELECTION AT THE ANNUAL MEETING

AGE DIRECTOR SINCE 70 January 2014

James Mandell, M.D. – Dr. Mandell is a Class III director who has served as a member of our 70 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 interactions with payers, qualifies him to serve as a member of our board of directors.

David P. Schenkein, M.D. – Dr. Schenkein is a Class III director who has served as a member 57 of our board of directors since April 2013. Since August 2009, Dr. Schenkein has served as the chief executive officer of Agios Pharmaceuticals. 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. and Foundation Medicine, Inc. 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.

July 2014

April 2013

Mark Vachon. – Mr. Vachon is a Class I director who has served as a member of our board of 56 directors since July 2014. Mr. Vachon assumed a variety of leadership positions across the General Electric organization over 30 years 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. Mr. Vachon holds a B.S. in Finance from Northeastern University and plans to graduate with an M.A. from Boston College in May 2015. 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.

EXECUTIVE OFFICERS

The following table sets forth information regarding our executive officers, as of April 24, 2015:

Name Age Position(s) Executive Officers: Nick Leschly(1)