

Mirati Therapeutics, Inc.
Form DEF 14A
April 19, 2016
Table of Contents

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 under §240.14a-12
Mirati Therapeutics, 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.

Edgar Filing: Mirati Therapeutics, Inc. - Form DEF 14A

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:

Table of Contents

MIRATI THERAPEUTICS, INC.
ANNUAL MEETING OF STOCKHOLDERS
May 18, 2016

NOTICE AND PROXY STATEMENT

Table of Contents

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON May 18, 2016

To the Stockholders of Mirati Therapeutics, Inc.:

Notice is hereby given that the 2016 Annual Meeting of Stockholders (the "Annual Meeting") of Mirati Therapeutics, Inc., a Delaware corporation, will be held on Wednesday, May 18, 2016, beginning promptly at 9:00 a.m., Pacific Time. You are being asked to vote on the following matters:

1. To elect the nominees for director named in the accompanying proxy statement to serve for the ensuing year and until their successors are elected.
2. To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2016.
3. To conduct any other business properly brought before the meeting.

Our Board of Directors recommends a vote "FOR" each of the proposals. The accompanying proxy statement contains additional information and should be carefully reviewed by stockholders.

The Annual Meeting will be a completely virtual meeting of stockholders. To participate, vote or submit questions during the Annual Meeting via live webcast, please visit www.virtualshareholdermeeting.com/MRTX2016. You will not be able to attend the Annual Meeting in person.

Our Board of Directors has fixed the close of business on March 24, 2016, as the record date for the determination of stockholders entitled to notice of and to vote at the Annual Meeting and at any adjournment or postponement thereof. We intend to mail these proxy materials on or about April 19, 2016 to all stockholders as of the record date.

Whether or not you expect to attend the Annual Meeting, please complete, date, sign and return the enclosed proxy, or vote over the telephone or the Internet as instructed in these materials, as promptly as possible in order to ensure your vote is counted at the Annual Meeting. Even if you have voted by proxy, you may still vote if you attend the Annual Meeting. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the Annual Meeting, you must obtain a proxy issued in your name from that record holder.

Important Notice Regarding the Availability of
Proxy Materials for the Annual Meeting to Be
Held on May 18, 2016 at 9:00 a.m. Pacific Time
via live webcast at
www.virtualshareholdermeeting.com/MRTX2016.

The proxy statement and annual report to
stockholders are available at
www.materials.proxyvote.com.

By Order of the Board of Directors,

Charles M. Baum, MD, PhD
President and Chief Executive Officer
San Diego, California
April 19, 2016

Table of Contents

TABLE OF CONTENTS

<u>Introduction</u>	<u>1</u>
<u>Questions and Answers About these Proxy Materials and Voting</u>	<u>1</u>
<u>Proposal 1 Election of Directors</u>	<u>6</u>
<u>Information Regarding the Board of Directors and Corporate Governance</u>	<u>8</u>
<u>Proposal 2 Ratification of Appointment of Independent Registered Public Accounting Firm</u>	<u>13</u>
<u>Executive Officers</u>	<u>14</u>
<u>Security Ownership of Certain Beneficial Owners and Management</u>	<u>16</u>
<u>Section 16(a) Beneficial Ownership Reporting Compliance</u>	<u>17</u>
<u>Executive Compensation</u>	<u>18</u>
<u>Certain Relationships and Related Transactions</u>	<u>29</u>
<u>Householding of Proxy Materials</u>	<u>30</u>
<u>Other Matters</u>	<u>30</u>

Table of Contents

2016 PROXY STATEMENT

INTRODUCTION

The Board of Directors of Mirati Therapeutics, Inc., a Delaware corporation ("Mirati," the "Company," "we," "us" or "our"), has made these proxy materials available to you on the Internet and has delivered these proxy materials to you in connection with the solicitation of proxies for use at the 2016 Annual Meeting of Stockholders ("Annual Meeting"). The Annual Meeting will be a virtual meeting, conducted via live webcast on the Internet at www.virtualshareholdermeeting.com/MRTX2016 on Wednesday, May 18, 2016, at 9:00 a.m. (Pacific Time), or at any adjournment or postponement thereof, for the purposes stated herein.

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Why am I receiving these materials?

We have sent you these proxy materials because the Board of Directors (sometimes referred to as the "Board") of Mirati is soliciting your proxy to vote at the 2016 Annual Meeting of Stockholders, including at any adjournments or postponements of the meeting. You are invited to attend the annual meeting to vote on the proposals described in this proxy statement. However, you do not need to attend the meeting to vote your shares. Instead, you may simply complete, sign and return the enclosed proxy card.

We intend to mail these proxy materials on or about April 19, 2016 to all stockholders of record.

Participating in the Annual Meeting

We will be hosting the Annual Meeting live via Internet webcast. You will not be able to attend the meeting in person. A summary of the information you need to attend the Annual Meeting online is provided below:

Any stockholder may listen to the Annual Meeting and participate live via webcast at

www.virtualshareholdermeeting.com/MRTX2016. The webcast will begin at 9:00 a.m. Pacific Time on May 18, 2016.

- Stockholders may vote and submit questions during the Annual Meeting via live webcast.

To enter the meeting, please have your 16-digit control number which is available on your proxy card. If you do not have your 16-digit control number, you will be able to listen to the meeting only and you will not be able to vote or submit questions during the meeting.

Instructions on how to connect to and participate in the Annual Meeting via the Internet, including how to demonstrate proof of stock ownership, are posted at www.virtualshareholdermeeting.com/MRTX2016.

Voting Rights and Outstanding Shares

Only stockholders of record as of the close of business on March 24, 2016, the record date, are entitled to notice of and to vote at the Annual Meeting. On the record date, 19,538,796 shares of our common stock were issued, outstanding and entitled to vote. Each share of our common stock that you own entitles you to one vote on all matters to be voted upon at the Annual Meeting. We will have a quorum to conduct the business of the Annual Meeting if the holders of a majority of the outstanding shares of our common stock entitled to vote are present themselves or by proxy. Abstentions and broker non-votes (i.e., shares of common stock held by a broker, bank or other nominee that are represented at the meeting, but that the broker, bank or other nominee is not empowered to vote on a particular proposal) will be counted in determining whether a quorum is present at the meeting.

Can I attend the Annual Meeting?

We will be hosting the Annual Meeting via live webcast on the Internet. You will not be able to attend the Annual Meeting in person. Any stockholder can listen to and participate in the Annual Meeting live via the Internet at www.virtualshareholdermeeting.com/MRTX2016. The webcast will start at 9:00 a.m., Pacific Time, on May 18, 2016. Stockholders may vote and submit questions while connected to the Annual Meeting on the Internet.

Table of Contents

What do I need in order to be able to participate in the Annual Meeting online?

You will need the 16-digit control number included on your proxy card in order to be able to vote your shares or submit questions during the meeting. If you do not have your 16-digit control number, you will be able to listen to the meeting only—you will not be able to vote or submit questions during the meeting. Instructions on how to connect and participate in the Annual Meeting via the Internet, including how to demonstrate proof of stock ownership, are posted at www.virtualshareholdermeeting.com/MRTX2016.

Who can vote at the Annual Meeting?

Only stockholders of record at the close of business on March 24, 2016, the record date, will be entitled to vote at the Annual Meeting. On the record date, there were 19,538,796 shares of our common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If on March 24, 2016, your shares were registered directly in your name with our transfer agent, Computershare Trust Company, N.A., then you are a stockholder of record. As a stockholder of record, you may vote at the Annual Meeting or vote by proxy. Whether or not you plan to attend the Annual Meeting, we urge you to fill out and return the enclosed proxy card or vote by proxy over the telephone or on the Internet as instructed below to ensure your vote is counted.

Beneficial Owner: Shares Registered in the Name of a Broker or Bank

If on March 24, 2016, your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in "street name" and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the Annual Meeting. However, since you are not the stockholder of record, you may not vote your shares at the meeting unless you request and obtain a valid proxy from your broker or other agent.

What am I voting on?

There are two matters scheduled for a vote:

- Election of the nominees for director named in the proxy statement;
- Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2016; and
- To transact any other business as may be properly brought before the meeting and any adjournments or postponements of the Meeting.

How do I vote?

For the election of directors, you may either vote "For" all nominees or you may "Withhold" your vote for any nominee you specify. For any other matter to be voted on, you may vote "For" or "Against" or you may abstain from voting. The procedures for voting are as follows:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote at the Annual Meeting or vote by proxy using the enclosed proxy card. Alternatively, you may vote by proxy either by telephone or on the Internet. Whether or not you plan to attend the meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the meeting and vote even if you have already voted by proxy.

To vote by telephone, dial toll-free 1-800-690-6903 using a touch-tone phone and follow the recorded instructions.

• You will be asked to provide the control number from the enclosed proxy card. Your telephone vote must be received by 11:59 p.m. Eastern Time on May 17, 2016 to be counted.

To vote on the Internet, go to www.proxyvote.com and follow the instructions to complete an electronic proxy card.

• You will be asked to provide the control number from the enclosed proxy card. Your Internet vote must be received by 11:59 p.m. Eastern Time on May 17, 2016 to be counted.

Table of Contents

To vote using the proxy card, simply complete, sign, date and return the enclosed proxy card as promptly as possible in the envelope provided. If you return your signed proxy card to us before the Annual Meeting, we will vote your shares as you direct.

To vote during the Annual Meeting, follow the instructions posted at www.virtualshareholdermeeting.com/MRTX2016.

Beneficial Owner: Shares Registered in the Name of Broker, Bank or Other Agent

If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a voting instruction form with these proxy materials from that organization rather than from us. Simply complete and mail the voting instruction form to ensure that your vote is counted. Alternatively, you may vote by telephone or over the Internet as instructed by your broker or bank. To vote at the Annual Meeting, you must obtain a valid proxy from your broker, bank or other agent. Follow the instructions from your broker or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

Internet proxy voting may be provided to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. However, please be aware that you must bear any costs associated with your Internet access, such as usage charges from Internet access providers and telephone companies.

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of March 24, 2016.

What if I return a proxy card or otherwise vote but do not make specific choices?

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, "For" Proposal 1, the election of all nominees for Director and "For" Proposal 2, to ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2016. If any other matter is properly presented at the meeting, your proxy holder (one of the individuals named on your proxy) will vote your shares using his or her best judgment.

Who is paying for this proxy solicitation?

The cost of soliciting proxies, including the preparation, assembly and mailing of the proxies and soliciting material, as well as the cost of forwarding such material to beneficial owners of our common stock, will be borne by us. Our Directors, officers and regular employees may, without compensation other than their regular remuneration, solicit proxies personally or by telephone.

What does it mean if I receive more than one set of proxy materials?

If you receive more than one set of proxy materials, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions on each proxy card in the proxy materials to ensure that all of your shares are voted.

Can I change my vote after submitting my proxy?

Stockholder of Record: Shares Registered in Your Name

Yes. You can revoke your proxy at any time before the final vote at the Annual Meeting. If you are the record holder of your shares, you may revoke your proxy in any one of the following ways:

• You may submit another properly completed proxy card with a later date.

• You may grant a subsequent proxy by telephone or through the Internet.

You may send a timely written notice that you are revoking your proxy to our Secretary at 9393 Towne Centre Drive, Suite 200, San Diego, CA 92121. To be timely, a written notice revoking your proxy must be received by May 17, 2016.

• You may vote during the Annual Meeting which will be hosted via the Internet.

Your most current proxy card or telephone or Internet proxy is the one that is counted.

Beneficial Owner: Shares Registered in the Name of Broker or Bank

If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank with respect to changing your vote.

Table of Contents

When are stockholder proposals and director nominations due for the 2017 Annual Meeting of Stockholders?

To be considered for inclusion in next year's proxy materials, your proposal must be submitted in writing by December 16, 2016, to the attention of our Secretary at 9393 Towne Centre Drive, Suite 200, San Diego, California 92121. Nothing in this paragraph shall be deemed to require us to include in our proxy statement and proxy card for such meeting any stockholder proposal which does not meet the requirements of the SEC in effect at the time. Any such proposal will be subject to Rule 14a-8 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). If you wish to submit a proposal (including a director nomination) at the 2017 Annual Meeting of Stockholders that is not to be included in next year's proxy materials, your written request must be received by our Secretary between January 18, 2017 and February 17, 2017. You are also advised to review our Bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations.

How are votes counted?

Votes will be counted by the inspector of election appointed for the meeting, who will separately count "For" and "Withhold" and, with respect to any proposals other than the election of directors, "Against" votes, abstentions and broker non-votes. Abstentions will be counted towards the vote total for proposal 2 and will have the same effect as "Against" votes. Broker non-votes have no effect and will not be counted towards the vote total for any proposal. If your shares are held by your broker, bank or other agent as your nominee (that is, in "street name"), that nominee will provide you with a voting instruction form. Please follow the instructions included on that form regarding how to instruct your broker, bank or other agent to vote your shares. If you do not give instructions to your broker, bank or other agent, they can vote your shares with respect to "discretionary" items, but not with respect to "non-discretionary" items. Discretionary items are proposals considered routine under the rules and interpretations of the NASDAQ Stock Market Listing Rules on which your broker, bank or other agent may vote shares held in street name in the absence of your voting instructions, and include the ratification of the selection of our independent registered public accounting firm. On non-discretionary items for which you do not give instructions to your broker, bank or other agent, which include the election of directors, the shares will be treated as broker non-votes.

What are "broker non-votes"?

A "broker non-vote" occurs when a broker submits a proxy card with respect to shares held in street name on behalf of a beneficial owner but does not vote on a particular proposal because the nominee does not have discretionary voting power with respect to that proposal and has not received instructions with respect to that proposal from the beneficial owner, despite voting on at least one other proposal for which it does have discretionary authority or for which it has received instructions. These un-voted shares are counted as broker non-votes.

How many votes are needed to approve each proposal?

For the election of Directors, the six nominees named in this proxy statement receiving the most "For" votes from the holders of shares present at the Annual Meeting or represented by proxy and entitled to vote on the election of Directors will be elected. Only votes "For" or "Withheld" will affect the outcome.

To be approved, the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ended December 31, 2016 must receive "For" votes from the holders of a majority of shares present at the Annual Meeting or represented by proxy and entitled to vote.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding a majority of the outstanding shares entitled to vote are present at the meeting or represented by proxy. On the record date, there were 19,538,796 shares outstanding and entitled to vote. Thus, the holders of at least 9,769,399 shares must be present or represented by proxy at the meeting to have a quorum.

Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you vote at the meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the holders of a majority of shares present at the meeting or represented by proxy may adjourn the meeting to another date.

Table of Contents

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

Preliminary voting results will be announced at the Annual Meeting. In addition, final voting results will be published in a current report on Form 8-K that we expect to file 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 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 proxy materials are available on the Internet?

The proxy statement and annual report to stockholders are available at materials.proxyvote.com/MRTX2016.

Table of Contents

PROPOSAL 1
ELECTION OF DIRECTORS

Our Board of Directors currently consists of six members, all of whom have been nominated for re-election as a director this year: Charles M. Baum, M.D., Ph.D.; Henry J. Fuchs, M.D.; Craig Johnson; Rodney W. Lappe, Ph.D.; William R. Ringo; and Michael Grey. Each nominee for director is to be elected at the Annual Meeting to serve until our 2017 Annual Meeting of Stockholders and until his successor is duly elected and qualified, or until his earlier death, resignation or removal. Each of the nominees is currently a director of Mirati.

Directors are elected by a plurality of the votes of the holders of shares present at the Annual Meeting or represented by proxy and entitled to vote at the Annual Meeting. The six nominees named in the proxy statement receiving the most "For" votes (among votes properly cast at the Annual Meeting or by proxy) will be elected. If no contrary indication is made, shares represented by executed or authenticated proxies will be voted "For" the election of the six nominees named above or, if any nominee becomes unavailable for election as a result of an unexpected occurrence, "For" the election of a substitute nominee designated by our Board of Directors. Each nominee has agreed to serve as a director if elected and we have no reason to believe that any nominee will be unable to serve.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE ELECTION OF EACH NOMINEE NAMED ABOVE

Name	Age	Position
Charles M. Baum, M.D., Ph.D.	57	President and Chief Executive Officer, Director
Henry J. Fuchs, M.D. ⁽²⁾⁽³⁾	58	Director
Craig Johnson ⁽¹⁾⁽²⁾	54	Director
Rodney W. Lappe, Ph.D. ⁽³⁾	61	Chairman of the Board
William R. Ringo ⁽¹⁾⁽²⁾	70	Director
Michael Grey ⁽¹⁾⁽³⁾	63	Director

- (1) Member of the Audit Committee
- (2) Member of the Compensation Committee
- (3) Member of the Nominating and Corporate Governance Committee

Charles M. Baum, M.D., Ph.D. has served as our President and Chief Executive Officer and member of our Board of Directors since November 2012. From June 2003 to September 2012, he was at Pfizer as Senior Vice President for Biotherapeutic Clinical Research within Pfizer's Worldwide Research & Development division and as Vice President and Head of Oncology Development and Chief Medical Officer for Pfizer's Biotherapeutics and Bioinnovation Center. From 2000 to 2003, he was responsible for the development of several oncology compounds at Schering-Plough Corporation (acquired by Merck). His career has included academic and hospital positions at Stanford University and Emory University, as well as positions of increasing responsibility within the pharmaceutical industry at SyStemix, Inc. (acquired by Novartis AG), G.D. Searle & Company (acquired by Pfizer), Schering-Plough Corporation (acquired by Merck) and Pfizer. Dr. Baum currently serves on the board of directors of Array BioPharma. Dr. Baum received his M.D. and Ph.D. (Immunology) degrees from Washington University School of Medicine in St. Louis, Missouri and completed his post-doctoral training at Stanford University.

Dr. Baum's experience in the pharmaceutical industry provides our Board of Directors with subject matter expertise. In addition, through his position as Chief Medical Officer for Pfizer's Biotherapeutics and Bioinnovation Center, Dr. Baum has acquired the operational expertise, which we believe qualifies him to serve on our Board of Directors.

Henry J. Fuchs, M.D. has served as a member of our Board of Directors since February 2012. Since March 2009, Dr. Fuchs has served as the Executive Vice President and Chief Medical Officer of BioMarin Pharmaceutical Inc. From September 2005 to December 2008, Dr. Fuchs was Executive Vice President and Chief Medical Officer of Onyx Pharmaceuticals, Inc. From 1996 to 2005, Dr. Fuchs served in multiple roles of increasing responsibility at Ardea Biosciences, Inc., first as Vice President, Clinical Affairs, then as President and Chief Operating Officer, and finally as Chief Executive Officer. From 1987 to 1996, Dr. Fuchs held various positions at Genentech Inc. Dr. Fuchs serves on the Board of Directors of Genomics Health, Inc. and was on the Board of Directors of Ardea Biosciences, Inc. from 1996 until its acquisition by AstraZeneca PLC in 2012. Dr. Fuchs received a B.A. in Biochemical Sciences from Harvard University, and an M.D. from George Washington University.

Table of Contents

We believe that Dr. Fuchs' experience as an executive and his breadth of knowledge and valuable understanding of the pharmaceutical industry qualify him to serve on our Board of Directors.

Craig Johnson has served as a member of our Board of Directors since September 2013. Mr. Johnson serves on the boards of directors for several life science companies. He is currently a director for Heron Therapeutics, Inc., a NASDAQ-listed specialty pharmaceutical company, a position he has held since January 2014, as well as for La Jolla Pharmaceutical Company, a NASDAQ-listed biopharmaceutical company, a position he has held since October 2013. Mr. Johnson also serves as a director of GenomeDx Biosciences, a privately held biotechnology company, a position he has held since October 2015. Mr. Johnson also served as a past director of Adamis Pharmaceuticals Corporation, a NASDAQ-listed biopharmaceutical company, from 2011 to 2014, as well as Ardea Biosciences, Inc., a NASDAQ-listed biotechnology company, from 2008 until its sale to AstraZeneca PLC in June 2012. From 2011 to 2012 he was Chief Financial Officer of PURE Bioscience, Inc., and from 2010 to 2011 he was Senior Vice President and Chief Financial Officer of NovaDel Pharma Inc. Mr. Johnson served as Vice President and Chief Financial Officer of TorreyPines Therapeutics, Inc. from 2004 until its sale to Raptor Pharmaceuticals Corp. in 2009, and then as Vice President of a wholly-owned subsidiary of Raptor Pharmaceutical Corp. from 2009 to 2010. He held several positions, including Chief Financial Officer and Senior Vice President of Operations, at MitoKor, Inc. from 1994 to 2004. Prior to 1994, Mr. Johnson held senior financial positions with several early-stage technology companies, and also practiced as a Certified Public Accountant with Price Waterhouse. Mr. Johnson received his B.B.A. in accounting from the University of Michigan-Dearborn.

We believe Mr. Johnson's leadership and experience and skills in accounting and finance qualify him to serve on our Board of Directors.

Rodney Lappe, Ph.D. has served as a member of our Board of Directors since June 2012 and as Chairman of the Board since July 2013. Since January 2012, Dr. Lappe has served as the Senior Vice President of Tavistock Life Sciences, a private investment firm. From January 2004 to December 2011, Dr. Lappe was Group Senior Vice President, Pfizer Worldwide Research and Development and Chief Scientific Officer for CovX in San Diego, California. Dr. Lappe joined Pfizer with the CovX acquisition in 2008. From 2000 to 2002, Dr. Lappe served as Vice President for cardiovascular and metabolic diseases at Pharmacia. He was also site leader for Pharmacia in St. Louis. Prior to joining Pharmacia, he held positions of increasing responsibility with Wyeth, Rorer Central Research, CIBA Geigy and Searle Pharmaceuticals. Dr. Lappe received his B.A. from Blackburn College and his Ph.D. in Pharmacology from Indiana University.

We believe Dr. Lappe's extensive experience managing pharmaceutical and biotech companies brings important strategic insight and qualifies him to serve on our Board of Directors.

William R. Ringo has served as a member of our Board of Directors since March 2014. Mr. Ringo has over 40 years of experience in the pharmaceutical and biotechnology sectors. Currently, he serves as a non-executive Chairman of the board of directors for Assembly BioSciences and Sangamo BioSciences. In addition to Assembly BioSciences and Sangamo BioSciences, he serves on the board of directors of Dermira, Immune Design Corp and Five Prime Therapeutics. Previously, Mr. Ringo was senior vice president of strategy and business development for Pfizer before his retirement in April 2010. He spent nearly 30 years with Eli Lilly and Company, serving in numerous executive roles, including product group president for oncology and critical care, president of internal medicine products, president of the infectious disease business unit and vice president of sales and marketing for U.S. pharmaceuticals. He has also served as president and CEO of Abgenix, an oncology-focused antibody company that was purchased by Amgen. He also recently served on the board of directors for Onyx Pharmaceuticals until its acquisition by Amgen in 2013. Mr. Ringo earned a B.S. in business administration and an M.B.A. from the University of Dayton.

We believe that Mr. Ringo's experience as an executive and his breadth of knowledge and valuable understanding of the pharmaceutical industry qualify him to serve on our Board of Directors.

Michael Grey has served as a member of our Board of Directors since November 2014. Mr. Grey currently serves as President and Chief Executive Officer of Amplyx Pharmaceuticals as well as Chief Executive Officer and Chairman of Reneo Pharmaceuticals. He recently served as President and Chief Executive Officer of Lumena Pharmaceuticals, Inc., a privately-held biotechnology company before it was acquired by Shire. Mr. Grey also serves as a Venture Partner with Pappas Ventures, a life sciences venture capital firm, since January 2010. Between January and September 2009, he served as President and Chief Executive Officer of Auspex Pharmaceuticals, Inc., a private biotechnology company. From January 2005 until its acquisition in August 2008, Mr. Grey was President and Chief Executive Officer of SGX Pharmaceuticals, Inc., a public biotechnology company, where he previously served as President from June 2003 to January 2005 and as Chief Business Officer from April 2001 until June 2003. Prior to joining SGX Pharmaceuticals, Inc., Mr. Grey acted as President, Chief Executive Officer and Board member of Trega Biosciences, Inc., a biotechnology company. From November 1994 to August 1998, Mr. Grey was the President of BioChem Therapeutic, Inc., the pharmaceutical operating division of BioChem Pharma, Inc. During 1994, Mr. Grey served as President and Chief Operating Officer for Ansan, Inc., a pharmaceutical company. From 1974 to 1993, he served in various roles with Glaxo,

Table of Contents

Inc. and Glaxo Holdings, plc, culminating in the position of Vice President, Corporate Development. Mr. Grey is currently a director of BioMarin Pharmaceutical, Inc. and Horizon Pharma, plc., public pharmaceutical companies, and Balance Therapeutics, Inc., Biothera Pharmaceutical, Inc., Selventa, Inc. and Ziarco Group Ltd., privately held healthcare companies. Mr. Grey previously served on the board of directors of two public companies during the past five years: IDM Pharma, Inc. from 1999 to 2009 and Achillion Pharmaceuticals, Inc. from 2001 to 2010. He received a B.Sc. in chemistry from the University of Nottingham, United Kingdom.

We believe that based on Mr. Grey's experience as an executive in the biopharmaceutical industry and his breadth of knowledge and valuable understanding of the pharmaceutical industry qualify him to serve on our Board of Directors.

THE BOARD OF DIRECTORS RECOMMENDS

A VOTE IN FAVOR OF EACH NAMED NOMINEE

INFORMATION REGARDING THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Board Composition and Independence

Our business and affairs are organized under the direction of our Board of Directors, which currently consists of six members. The primary responsibilities of our Board of Directors are to provide oversight, strategic guidance, counseling and direction to our management. Our Board of Directors meets on a regular basis and additionally as required.

Our Board of Directors has determined that five of our six directors, Henry J. Fuchs, M.D., Rodney W. Lappe, Ph.D., Craig Johnson, William R. Ringo and Michael Grey, are independent directors, as defined by Rule 5605(a)(2) of the NASDAQ Listing Rules.

Each director serves until the next annual meeting of stockholders following such director's election to the Board of Directors and until his successor is duly elected and qualified. The authorized number of directors may be changed only by resolution of the Board of Directors. Our directors may be removed for cause by the affirmative vote of the holders of a majority of our voting stock.

Stockholder Communications with the Board of Directors

Our Board of Directors has adopted a formal process by which stockholders may communicate with the Board of Directors or any of its directors. Stockholders who wish to communicate with the Board of Directors may do so by sending written communications addressed to the Secretary of Mirati Therapeutics, Inc. at 9393 Towne Centre Drive, Suite 200, San Diego, CA 92121. Each communication must set forth: the name and address of our stockholder on whose behalf the communication is sent and the number of Company shares that are owned beneficially by such stockholder as of the date of the communication. Each communication will be reviewed by our Secretary to determine whether it is appropriate for presentation to the Board of Directors or such director. Communications determined by our Secretary to be appropriate for presentation to the Board of Directors or such director will be submitted to the Board of Directors or such director on a periodic basis.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all officers, directors and employees. The Code of Business Conduct and Ethics is available on our website at www.mirati.com. If we make any substantive amendments to the Code of Business Conduct and Ethics or grant any waiver from a provision of the Code of Business Conduct and Ethics to any executive officer or director, we will promptly disclose the amendment or waiver on our website. Note that the information on our website is not incorporated by reference in this Proxy Statement.

Board of Directors Leadership Structure

The Board of Directors has a Chairman of the Board, Dr. Lappe, who has authority, among other things, to call and preside over Board of Directors meetings, to set meeting agendas, and to determine materials to be distributed to the Board of Directors. Accordingly, the Chairman has substantial ability to shape the work of the Board of Directors. In addition, we have a separate chair for each committee of the Board of Directors. The chairs of each committee are expected to report at least annually to the Board of Directors on the activities of their committee in fulfilling their

responsibilities as detailed in their respective charters or specify any shortcomings should that be the case. We believe that separation of the positions of Chairman and Chief Executive Officer reinforces the independence of the Board of Directors in its oversight of our business and affairs. In addition, we believe that having a separate Chairman creates an environment that is more conducive to objective evaluation and oversight of management's performance, increasing management accountability and improving the ability of the Board of Directors to monitor

8

Table of Contents

whether management's actions are in our best interests and the best interests of our stockholders. As a result, we believe that having a separate Chairman can enhance the effectiveness of the Board of Directors as a whole.

Role of the Board of Directors in Risk Oversight

The Audit Committee of the Board of Directors is primarily responsible for overseeing our risk management processes on behalf of the Board of Directors. Going forward, we expect that the Audit Committee will receive reports from management at least annually regarding our assessment of risks. In addition, the Audit Committee reports regularly to the Board of Directors, which also considers our risk profile. The Audit Committee and the Board of Directors focus on the most significant risks we face and our general risk management strategies. While the Board of Directors oversees our risk management, management is responsible for day-to-day risk management processes. The Board of Directors expects management to consider risk and risk management in each business decision, to proactively develop and monitor risk management strategies and processes for day-to-day activities and to effectively implement risk management strategies adopted by the Audit Committee and the Board of Directors. We believe this division of responsibilities is the most effective approach for addressing the risks we face and that the Board of Directors leadership structure, which also emphasizes the independence of the Board of Directors in its oversight of its business and affairs, supports this approach.

Meetings of the Board of Directors

The Board of Directors held 18 meetings during 2015. Each Board member attended 75% or more of the aggregate number of meetings of the Board of Directors and of the committees on which he served, held during the portion of the last fiscal year for which he was a director or committee member.

We encourage, but do not require, our Board of Directors to attend our annual meeting of stockholders. Dr. Baum, Mr. Johnson and Dr. Lappe attended our 2015 Annual Meeting of Stockholders.

Information Regarding Committees of the Board of Directors

The Board of Directors has three standing committees: an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee.

The following table provides membership and meeting information for fiscal year 2015 for each of the committees of the Board of Directors as of December 31, 2015:

Name	Audit	Compensation	Nominating and Corporate Governance
Henry J. Fuchs, M.D.		X	X*
Craig Johnson**	X*	X	
Rodney W. Lappe, Ph.D.			X
William R. Ringo	X	X*	
Michael Grey	X		X
Total meetings in 2015	4	4	2

*Committee Chairperson

**Financial Expert

Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. The Board of Directors has determined that each member of each committee meets the applicable NASDAQ rules and regulations regarding "independence" and that each member is free of any relationship that would impair his individual exercise of independent judgment with regard to us.

Below is a description of each committee of the Board of Directors.

Audit Committee

The Audit Committee of the Board of Directors was established by the Board in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), to oversee our corporate accounting and financial reporting processes and audits of its financial statements. For this purpose, the Audit Committee performs several functions. The principal duties of the Audit Committee of the Board of Directors include assisting the Board of Directors in its oversight of:

the quality and integrity of our financial statements and reports;

9

Table of Contents

our accounting and financial reporting process, system of internal controls over financial reporting and audit process; compliance with, and process for monitoring compliance with, legal and regulatory requirements; the independent auditors' qualifications, independence and performance; our legal, regulatory and ethical compliance programs as established by management and the Board of Directors; and pre-approval of all audit and non-audit services provided by the independent registered public accounting firm.

The current members of the Audit Committee are Mr. Johnson (chair), Mr. Ringo, and Mr. Grey. The Audit Committee met four times during 2015. Our Board of Directors has determined that each member of the Audit Committee is an independent director under Rule 5605(c)(2)(A)(i) and (ii) of the NASDAQ listing standards and under Rule 10A-3 under the Exchange Act. Each member of our Audit Committee can read and understand fundamental financial statements in accordance with NASDAQ audit committee requirements. In arriving at this determination, the Board of Directors has examined each Audit Committee member's scope of experience and the nature of their employment in the corporate finance sector.

Our Board of Directors has determined that Mr. Johnson qualifies as an audit committee financial expert within the meaning of SEC regulations and meets the financial sophistication requirements of the NASDAQ Listing Rules. In making this determination, our Board of Directors has considered formal education and the nature and scope of experience each has previously had with public companies. Both our independent registered public accounting firm and management periodically meet privately with our Audit Committee.

The Audit Committee charter can be found on our website at www.mirati.com in the Corporate Governance section. Report of the Audit Committee of the Board of Directors

The material in this report is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

The Audit Committee has reviewed and discussed the audited consolidated financial statements for the fiscal year ended December 31, 2015 with management of the Company. The Audit Committee has discussed with the independent registered public accounting firm the matters required to be discussed by Statement on Auditing Standards No. 16, "Communications with Audit Committees" issued by the Public Company Accounting Oversight Board ("PCAOB"). The Audit Committee has also received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence, and has discussed with the independent registered public accounting firm the accounting firm's independence. Based on the foregoing, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

Audit Committee

Craig Johnson, Chair

Michael Grey

William R. Ringo

Compensation Committee

The principal duties of the Compensation Committee of the Board of Directors include:

- reviewing and approving our overall compensation strategy and policies;
- reviewing and approving corporate performance goals, compensation and other terms of employment of our executive officers;
- reviewing the compensation of our non-employee directors;
- administering our stock option and purchase plans; and
- reviewing, discussing with management and approving the annual report on executive compensation for purposes of disclosure to our stockholders.

Table of Contents

The Compensation Committee reviews and approves overall compensation strategies and policies. In exercising these duties the Compensation Committee ensures that our compensation programs, particularly in connection with bonus targets, are aligned with the interests of our stockholders and other stakeholders. The named executive officers' bonus targets are based on corporate-based goals that strive to increase stockholder value.

The Compensation Committee regularly enlists the services of a third-party company to conduct an evaluation of current market practices to benchmark against our current practices. The last such review was undertaken by Radford Compensation Consulting ("Radford") during the fourth quarter of 2015.

The current members of the Compensation Committee are Mr. Ringo (chair), Dr. Fuchs, and Mr. Johnson. Our Board of Directors has determined that all such members are independent under the NASDAQ Listing Rules, are "non-employee directors" as defined in Rule 16(b)-3 promulgated under the Exchange Act and are "outside directors" as that term is defined in Section 162(m) of the Code. The Compensation Committee met four times during 2015.

Typically, the Compensation Committee meets quarterly and with greater frequency if necessary. The agenda for each meeting is usually developed by the Chair of the Compensation Committee, in consultation with the Chief Executive Officer. The Compensation Committee meets regularly in executive session. However, from time to time, various members of management and other employees as well as outside advisors or consultants may be invited by the Compensation Committee to make presentations, to provide financial or other background information or advice or to otherwise participate in Compensation Committee meetings. The Chief Executive Officer may not participate in, or be present during, any deliberations or determinations of the Compensation Committee regarding his compensation or individual performance objectives. The charter of the Compensation Committee grants the Compensation Committee full access to all our books, records, facilities and personnel. In addition, under the charter, the Compensation Committee has the authority to obtain, at our expense, advice and assistance from internal and external legal, accounting or other advisors and other external resources that the Compensation Committee considers necessary or appropriate in the performance of its duties. The Compensation Committee has direct responsibility for the oversight of the work of any advisors engaged for the purpose of advising the Committee. In particular, the Compensation Committee has the sole authority to retain compensation consultants to assist in its evaluation of executive and director compensation, including the authority to approve the consultant's reasonable fees and other retention terms. Under the charter, the Compensation Committee may select, or receive advice from, a compensation consultant, legal counsel or other advisors to the compensation committee, only after taking into consideration six factors, prescribed by the SEC and NASDAQ, that bear upon the adviser's independence; however, there is no requirement that any adviser be independent.

During the past fiscal year, after taking into consideration the six factors prescribed by the SEC and NASDAQ described above, the Compensation Committee engaged Radford as compensation consultants. Radford was selected based upon its reputation and experience as compensation consultants and in its work with companies similar to Mirati. The Compensation Committee requested that Radford conduct an evaluation of current market compensation practices to benchmark against our current compensation practices.

Under its charter, the Compensation Committee may form, and delegate authority to, subcommittees as appropriate. During 2014, the Compensation Committee formed a New Hire Non-Officer Stock Option Subcommittee, currently composed of Charles M. Baum and Mark J. Gergen, to which it delegated authority to grant, without any further action required by the Compensation Committee, stock options to newly hired employees and newly promoted employees who are not our executive officers within pre-established guidelines.

Historically, the 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 quarter of 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 the Chief Executive Officer, the Compensation Committee solicits and considers evaluations and recommendations submitted to the Committee by the Chief Executive Officer. In the case of the 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 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 the Compensation Committee's compensation consultant, including analyses of executive compensation paid at other companies identified by the consultant. The Compensation Committee charter can be found on our website at www.mirati.com in the Corporate Governance section.

Table of Contents

Nominating and Corporate Governance Committee

The principal duties of the Nominating and Corporate Governance Committee of the Board of Directors are to develop and implement a set of corporate governance principles and policies, including a code of business conduct and ethics, assess the performance of the Board of Directors, its committees and the contributions of individual directors, and review and oversee management succession planning. As part of this process the Nominating and Corporate Governance Committee periodically reviews and assesses these policies and principles and their application and recommends to the Board of Directors any changes to such policies and principles. The principal duties of the Nominating and Corporate Governance Committee in connection with the nomination of directors are to evaluate the size of the Board of Directors; identify the skill sets currently available and skill sets that may be required; and recommend to the Board of Directors the director nominees to be put before the stockholders at our annual meeting. The current members of the Nominating and Corporate Governance Committee are Dr. Fuchs (chair), Dr. Lappe and Mr. Grey. Our Board of Directors has determined that all such members are independent under Rule 5605(a)(2) of the NASDAQ listing standards. The Nominating and Corporate Governance Committee met twice during 2015. The Nominating and Corporate Governance Committee charter can be found on our website at www.mirati.com in the Corporate Governance section.

The Nominating and Corporate Governance Committee believes that candidates for director, both individually and collectively, can and do provide the integrity, experience, judgment, commitment (including having sufficient time to devote to us and level of participation), skills, diversity and expertise appropriate for us. In assessing the directors, both individually and collectively, the Nominating and Corporate Governance Committee may consider our current needs and the needs of the Board of Directors, to maintain a balance of knowledge, experience and capability in various areas. However, the Nominating and Corporate Governance Committee retains the right to modify these qualifications from time to time. Candidates for director nominees are assessed in the context of the current composition of the Board of Directors, our operating requirements and the long-term interests of stockholders. In conducting this assessment, the Nominating and Corporate Governance Committee typically considers diversity, age, skills and such other factors as it deems appropriate given our current needs and the needs of the Board of Directors, to maintain a balance of knowledge, experience and capability. In the case of incumbent directors whose terms of office are set to expire, the Nominating and Corporate Governance Committee reviews these directors' overall service to us during their terms, including the number of meetings attended, level of participation, quality of performance and any other relationships and transactions that might impair the directors' independence. In the case of new director candidates, the Nominating and Corporate Governance Committee also determines whether the nominee is independent for NASDAQ purposes, which determination is based upon applicable NASDAQ listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The Nominating and Corporate Governance Committee then uses its network of contacts to compile a list of potential candidates, but may also engage, if it deems appropriate, a professional search firm. The Nominating and Corporate Governance Committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the Board of Directors. The Nominating and Corporate Governance Committee meets to discuss and consider the candidates' qualifications and then selects a nominee for recommendation to the Board of Directors by majority vote.

The Nominating and Corporate Governance Committee will consider director candidates recommended by stockholders. The Nominating and Corporate Governance Committee does not intend to alter the manner in which it evaluates candidates, including the minimum criteria set forth above, based on whether or not the candidate was recommended by a stockholder. Stockholders who wish to recommend individuals for consideration by the Nominating and Corporate Governance Committee to become nominees for election to the Board of Directors may do so by delivering a written recommendation to the Nominating and Corporate Governance Committee at the following address: 9393 Towne Centre Drive, Suite 200, San Diego, CA 92121, Attn: Secretary, no later than the 90th day and no earlier than the 120th day prior to the one year anniversary of the preceding year's annual meeting. Submissions must include (1) the name and address of the stockholder on whose behalf the submission is made; (2) number of Company shares that are owned beneficially by such stockholder as of the date of the submission; (3) the full name of the proposed candidate; (4) description of the proposed candidate's business experience for at least the previous five

years; (5) complete biographical information for the proposed candidate; (6) a description of the proposed candidate's qualifications as a director and (7) any other information required by our Bylaws. The Nominating and Corporate Governance Committee may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as our independent director or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such proposed nominee. The Nominating and Corporate Governance Committee charter can be found on our website at www.mirati.com in the Corporate Governance section.

Table of Contents

PROPOSAL 2

RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has selected the San Diego, California, United States office of Ernst & Young, LLP ("Ernst & Young") as our independent registered public accounting firm for the fiscal year ending December 31, 2016 and has further directed that management submit the selection of independent registered public accounting firm for ratification by the stockholders at the Annual Meeting.

Representatives of Ernst & Young are expected to be present at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Neither our Bylaws nor other governing documents or law require stockholder ratification of the selection of Ernst & Young as our independent registered public accounting firm. However, the Audit Committee is submitting the selection of Ernst & Young to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection, the Audit Committee will reconsider whether or not to retain that firm. Even if the selection is ratified, the Audit Committee in its discretion may direct the appointment of different independent auditors at any time during the year if they determine that such a change would be in our best interests and the best interests of our stockholders.

The affirmative vote of the holders of a majority of the shares present at the Annual Meeting or represented by proxy and entitled to vote at the Annual Meeting will be required to ratify the selection of Ernst & Young. Abstentions will be counted toward the tabulation of votes on proposals presented to the stockholders and will have the same effect as negative votes. Broker non-votes (if any) are counted towards a quorum, but are not counted for any purpose in determining whether this matter has been approved.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 2

Principal Accountant Fees and Services

The following table represents aggregate fees billed to us for the fiscal years ended December 31, 2015 and 2014 by Ernst & Young, our principal accountant for those years. All fees described below were pre-approved by the Audit Committee.

	Fiscal Year	
	Ended	
	December 31,	
	2015	2014
Audit Fees ⁽¹⁾	\$643,985	\$308,085
Audit-related Fees ⁽²⁾	—	12,500
Tax Fees ⁽³⁾	71,566	220,000
All Other Fees ⁽⁴⁾	1,945	—
Total Fees	\$717,496	\$540,585

2015 and 2014 Audit fees consist of fees billed for professional services by Ernst & Young for audit and quarterly review of our financial statements, public offering filings and review of our Form 8-K's, and related services that (1) are normally provided in connection with statutory and regulatory filings or engagements. Audit fees for 2015 included fees for two public offerings completed during the year ended December 31, 2015. There were no public offerings completed during the year ended December 31, 2014.

(2) Audit-related fees consist of services that are traditionally performed by the auditor and consist primarily of accounting consultations on proposed transactions.

(3) Tax Fees consist of services related to the preparation of our corporate tax returns in the U.S. and transfer pricing services related to the Company's intercompany tax structure.

(4) All other fees for 2015 consist of license fees for a web-based accounting research tool.

In connection with the audit of the 2015 financial statements, we entered into an engagement agreement with Ernst & Young which sets forth the terms under which Ernst & Young performed audit services for us. The agreement is subject to alternative dispute resolution procedures.

Table of Contents

PRE-APPROVAL POLICIES AND PROCEDURES

The Audit Committee must pre-approve the audit and non-audit services rendered by the Company's independent registered public accounting firm. Effective March 2015, the Audit Committee delegated authority for pre-approval to its Chair.

EXECUTIVE OFFICERS

The following table sets forth information regarding our executive officers as of December 31, 2015:

Name	Age	Title
Charles M. Baum, M.D., Ph.D.	57	President and Chief Executive Officer, Director
Mark J. Gergen	53	Executive Vice President and Chief Operating Officer
Isan Chen, M.D.	53	Executive Vice President and Chief Medical and Development Officer
James Christensen, Ph.D.	47	Senior Vice President and Chief Scientific Officer
Jamie A. Donadio	40	Vice President, Finance*

* Mr. Donadio was promoted to Senior Vice President and Chief Financial Officer in March 2016. Please see his biographical information below for further details.

The following is biographical information for our executive officers other than Dr. Baum, whose biographical information is included under Proposal 1.

Mark J. Gergen has served as our Executive Vice President and Chief Operations Officer since February 2013. From September 2006 to November 2012, he was Senior Vice President, Corporate Development for Amylin Pharmaceuticals, Inc. ("Amylin"). Starting in January 2005, he was Executive Vice President of CardioNet, Inc. From June 1999 to May 2003, he served as Chief Financial and Development Officer and later Chief Restructuring Officer of Advanced Tissue Sciences, Inc. From August 1994 to June 1999, he was Division Counsel at Medtronic, Inc. Mr. Gergen received a B.A. in Business Administration from Minot State University and a J.D. from the University of Minnesota Law School.

Isan Chen, M.D. has served as our Executive Vice President and Chief Medical and Development Officer since September 2013. Dr. Chen is board certified in Internal medicine, hematology and medical oncology with more than 15 years of experience in oncology and clinical trials from first-in-humans through global registrational studies. He has experience in oncology clinical development and interactions with regulatory agencies in the United States and Europe. From December 2010 to August 2013 he was the Chief Medical Officer of Aragon Pharmaceuticals, which was acquired by Johnson & Johnson. At Aragon Pharmaceuticals, Dr. Chen was responsible for the clinical development strategy of all the company's programs, including prostate and breast cancer. Prior to Aragon Pharmaceuticals, Dr. Chen served as Vice President of tumor strategy in the oncology business unit at Pfizer. In addition he was the clinical lead for Sutent, a multiple kinase inhibitor, for the treatment of RCC, an indication in which the drug secured FDA approval in 2006. He was also the clinical lead for the Phase 1 studies of crizotinib and CDK 4/6 inhibitor palbociclib. Dr. Chen completed his hematology/oncology fellowship at University of California, San Diego. Before joining Pfizer, Dr. Chen practiced medicine as a staff physician at City of Hope Medical Center and later as an assistant professor at the University of Texas, M.D. Anderson Cancer Center.

James Christensen, Ph.D. has served as our Senior Vice President and Chief Scientific Officer since January 2014 and served as our Vice President, Research from June 2013 through January 2014. Prior to joining us, he held various positions at Pfizer from 2003 to 2013, the most recent of which was Senior Director of Oncology Precision Medicine in the Oncology Research Unit. Dr. Christensen joined Pfizer in 2003 and his responsibilities there included leading nonclinical research efforts for oncology programs including sunitinib malate research activities and leading the nonclinical and translational biology efforts for other research and development programs including crizotinib. Dr. Christensen participated as a member of the Cancer Research or Oncology Research Unit leadership team from 2005 to 2013. Prior to 2003, Dr Christensen was a Group Leader on the Preclinical Research and Exploratory Development team at SUGEN, Inc., which was acquired by Pharmacia Corporation, now owned by Pfizer. Dr. Christensen began his career in 1998 at Warner Lambert, now owned by Pfizer, with research focus in RTK biology

and RTK pathway biomarker development in the oncology therapeutic area. Dr. Christensen participates on the editorial boards for Cancer Research and Molecular Cancer Therapeutics. Dr. Christensen received a Ph.D. in molecular pharmacology from North Carolina State University with dissertation research directed toward characterization of mechanisms of apoptosis dysregulation during the process of carcinogenesis.

Jamie A. Donadio has served as our Senior Vice President and Chief Financial Officer since March 2016 and served as our Vice President, Finance from March 2013 to March 2016. Prior to joining us, Mr. Donadio was at Amylin Pharmaceuticals from April 2001 through January 2013. From November 2011 to January 2013, Mr. Donadio served as Senior Director of Finance at Amylin. From December 2010 to November 2011, he served as Director of Corporate Financial Planning and Analysis at Amylin.

Table of Contents

From March 2007 to December 2010 he served as Director of SEC Reporting and from April 2001 to March 2007 he held various corporate accounting roles at Amylin. From December 2000 to April 2001, Mr. Donadio was senior accountant at Novatel Wireless, Inc. From August 1997 to December 2000, Mr. Donadio was with Ernst & Young LLP, last serving as an audit senior. Mr. Donadio holds a B.S. in Accounting from Babson College and is a certified public accountant (inactive) in the State of California.

Table of ContentsSECURITY OWNERSHIP OF
CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the ownership of our common stock as of April 1, 2016 by: (i) each director and nominee for director; (ii) each of the named executive officers in the Summary Compensation Table; (iii) all our executive officers and directors as a group; and (iv) all those known by us to be beneficial owners of more than five percent of our common stock.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting and investment power with respect to the securities. Except as indicated by footnote, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them. The number of shares of common stock used to calculate the percentage ownership of each listed person includes the shares of common stock underlying options, warrants or other rights held by such persons that are exercisable as of May 31, 2016, which is 60 days after April 1, 2016.

Percentage of beneficial ownership is based on 19,906,776 shares of common stock outstanding as of April 1, 2016. Unless otherwise indicated, the address for the following stockholders is c/o Mirati Therapeutics, Inc., 9393 Towne Centre Drive, Suite 200, San Diego, CA 92121.

Name and Address of Beneficial Owner	Beneficial Ownership ⁽¹⁴⁾		
	Shares Beneficially Owned	of Total Voting Power	Percentage
5% Stockholders:			
Baker Bros. Advisors, LLC ⁽¹⁾	3,548,819	17.6	%
Boxer Capital, LLC ⁽²⁾	3,329,255	16.5	%
FMR LLC ⁽³⁾	2,889,888	14.5	%
VenBio Select Advisor LLC ⁽⁴⁾	1,295,555	6.5	%
Directors and Named Executive Officers:			
Charles M. Baum, M.D., Ph.D. ⁽⁵⁾	424,962	2.1	%
Mark J. Gergen ⁽⁶⁾	130,722	*	
Isan Chen ⁽⁷⁾	97,023	*	
Henry Fuchs, M.D. ⁽⁸⁾	61,452	*	
Rodney Lappe, Ph.D. ⁽⁹⁾	61,052	*	
Craig Johnson ⁽¹⁰⁾	44,667	*	
William R. Ringo ⁽¹¹⁾	31,389	*	
Michael Grey ⁽¹²⁾	27,500	*	
All executive officers and directors as a group (10 persons) ⁽¹³⁾	956,978	4.8	%

*Represents beneficial ownership of less than one percent of our outstanding shares of common stock.

Based solely upon a Form 13D filed by Baker Bros. Advisors L.P. ("Baker Bros.") filed with the SEC on April 1, 2016. Includes 3,054,055 shares of common stock held by Baker Brothers Life Sciences, L.P., 170,714 shares of common stock held by 667, L.P. and 43,787 shares of common stock held by 14159, L.P. Baker Bros. beneficially owns an aggregate of 280,263 shares of common stock subject to warrants that are exercisable within 60 days of (1) April 1, 2016 as follows: 249,801 shares by Baker Brothers Life Sciences, L.P., 24,466 shares by 667, L.P., and 5,996 shares by 14159, L.P. Baker Bros. advises Baker Brothers Life Sciences, L.P., 667, L.P., and 14159, L.P. and may be deemed to beneficially own Baker Brother Life Sciences, L.P.'s, 667, L.P.'s, and 14159, L.P.'s shares of common stock and shares subject to warrants that are exercisable within 60 days of April 1, 2016. The address for Baker Bros. is 667 Madison Avenue, 21st Floor, New York, NY 10065.

- (2) Based upon a Schedule 13D filed by Boxer Capital, LLC ("Boxer Capital") with the SEC on March 17, 2016 and Form 4 filed by Braslyn Ltd. on March 31, 2016. Includes 757,935 shares of common stock held by Boxer Capital, 429,340 shares of common stock held by MVA Investors, LLC, 1,549,401 shares of common stock held by Braslyn Ltd. and 324,613 shares owned by various individual Boxer Capital affiliated entities employees including 59,802 shares of common stock which are pursuant to the right to acquire stock options. Additionally includes 267,966 shares of common stock subject to warrants

Table of Contents

exercisable within 60 days of April 1, 2016 as follows: 189,780 shares by Boxer Capital and 78,186 shares by MVA Investors, LLC. The address for Boxer Capital is 11682 El Camino Real 320, San Diego, CA, 92130.

Based solely upon a Schedule 13G filed by FMR LLC with the SEC on February 12, 2016 indicating that entities (3) affiliated with Fidelity Management and Research Company have sole power to dispose of 2,889,888 shares. The address for Fidelity Management and Research Company is 245 Summer Street, Boston, MA 02210.

Based solely upon a Schedule 13G filed by venBio Select Advisor LLC with the SEC on February 12, 2016.

(4) Includes 1,295,555 shares of common stock which include 37,500 shares subject to warrants that are exercisable within 60 days of April 1, 2016. venBio Select Advisor LLC provides investment advisory and management services and has acquired the securities solely for investment purposes on behalf of venBio Select Fund LLC, venBio Select Fund Ltd. and certain managed accounts. The address for venBio Select Advisor LLC is 1700 Owens Street, Suite 595, San Francisco, CA 94158.

(5) Includes 396,406 shares subject to options exercisable within 60 days of April 1, 2016 and 28,556 shares owned directly by Dr. Baum.

(6) Includes 124,974 shares subject to options exercisable within 60 days of April 1, 2016 and 5,748 shares owned directly by Mr. Gergen.

(7) Includes 78,800 shares subject to options exercisable within 60 days of April 1, 2016 and 18,223 shares owned directly by Dr. Chen of which 110 shares are held in the Chen Family Trust of which Dr. Chen is co-trustee.

(8) Includes 61,452 shares subject to options exercisable within 60 days of April 1, 2016.

(9) Includes 61,052 shares subject to options exercisable within 60 days of April 1, 2016.

(10) Includes 44,667 shares subject to options exercisable within 60 days of April 1, 2016.

(11) Includes 31,389 shares subject to options exercisable within 60 days of April 1, 2016.

(12) Includes 27,500 shares subject to options exercisable within 60 days of April 1, 2016.

(13) Includes the shares owned directly and shares subject to options exercisable within 60 days of April 1, 2016 referred to in footnotes (5), (6), (7), (8), (9), (10), (11) and (12). Also includes 35,913 shares held by Jamie A. Donadio and 42,298 shares held by James Christensen.

(14) This table is based upon information supplied by officers, directors and principal stockholders and Schedules 13D and 13G filed with the SEC.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and executive officers, and persons who own more than ten percent of a registered class of our equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of common stock and our other equity securities. Officers, directors and greater than ten percent stockholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file.

To our knowledge, based solely on a review of the copies of such reports furnished to us and written representations that no other reports were required, during the fiscal year ended December 31, 2015, all Section 16(a) filing requirements applicable to its officers, directors and greater than ten percent beneficial owners were complied with.

Table of Contents

EXECUTIVE COMPENSATION

Overview

The Compensation Committee of the Board of Directors administers our compensation programs on behalf of the Board of Directors. Although focused on executive compensation, the Compensation Committee also sets the annual compensation guidelines for all employees. The Compensation Committee has a charter that is reviewed and updated annually, or as may be warranted from time to time. The members of the Compensation Committee are Mr. Ringo (chair), Dr. Fuchs, and Mr. Johnson.

SUMMARY COMPENSATION TABLE FOR FISCAL 2015 AND 2014

The following table shows for the fiscal years ended December 31, 2015 and 2014, compensation awarded to, paid to, or earned by, our principal executive officer and the two other most highly compensated executive officers (the "Named Executive Officers").

Name and Principal Position	Year	Salary (\$) ⁽⁵⁾	Option awards (\$) ⁽¹⁾	Non-equity incentive plan compensation (\$) ⁽²⁾	All other compensation (\$) ⁽³⁾	Total (\$)
Charles M. Baum, M.D., Ph.D. President and Chief Executive Officer	2015	530,272	1,489,200	225,500	2,814	2,247,786
	2014	534,116	2,288,484	154,500	78 ⁽⁴⁾	2,977,100
Mark J. Gergen Executive Vice President and Chief Operations Officer	2015	396,286	525,600	134,800	2,814	1,059,500
	2014	399,180	762,828	92,360	2,975	1,257,343
Isan Chen, M.D. Executive Vice President and Chief Medical and Development Officer	2015	384,779	525,600	130,900	2,814	1,044,093
	2014	*	*	*	*	*

* 2014 Compensation data for Dr. Chen has not been provided as he was not a named executive officer until 2015.

In accordance with SEC rules, this column reflects the aggregate grant date fair value of the option awards granted during 2015 and 2014 computed in accordance with Financial Accounting Standard Board Accounting Standards Codification ("ASC") Topic 718 for stock-based compensation transactions. Assumptions used in the calculation of

(1) these amounts are included in Note 9 to our consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2015. These amounts do not reflect the actual economic value that will be realized by the Named Executive Officer upon the vesting of the stock options, the exercise of the stock options, or the sale of the shares of common stock underlying such stock options.

(2) Amounts shown represent performance bonuses earned in 2015, which were paid in cash in the first quarter of 2016.

Amounts shown represent term life insurance paid by us on behalf of the Named Executive Officers and matching (3) contributions we paid under the terms of our 401(k) plan. All of these benefits are provided to the Named Executive Officers on the same terms as provided to all of our regular full-time employees in the United States.

(4) Amount includes a refund for a 2013 excess employer contribution to our 401(k) plan of \$2,897.

(5) The 2015 Salary for Dr. Baum and Mr. Gergen is lower than the 2014 Salary because there was an additional pay period in 2014 compared to 2015.

The elements of the compensation program for the Named Executive Officers include: base salary; a non-equity incentive plan bonus; a long-term, equity-based incentive plan; and other compensation, including certain health, welfare and retirement benefits and when determined necessary, limited perquisites. The Named Executive Officers also have termination and change of control benefits in their respective employment agreements (see "Potential Payments Upon Termination or Change of Control" and "Employment Agreements" below).

Table of Contents

Annual Base Salary

The compensation of our Named Executive Officers is generally determined and approved by our Board of Directors, based on the recommendation of the Compensation Committee. Our Board of Directors approved the following 2015 and 2016 base salaries for our Named Executive Officers:

Name	2015	2016
	Base Salary	Base Salary
Charles M. Baum, M.D., Ph.D.	\$ 530,450	\$ 546,400
Mark J. Gergen	396,400	408,300
Isan Chen, M.D.	384,900	396,400

The 2016 Base salaries approved by the Board of Directors were effective January 1, 2016 and reflect a 3% cost-of-living increase.

Non-Equity Incentive Plan Bonus

In addition to annual base salaries, our Named Executive Officers are eligible to receive annual performance-based cash bonuses. The annual performance-based bonus each Named Executive Officer is eligible to receive is based on (1) the individual's target bonus, as a percentage of base salary and (2) our achievement of corporate goals. Pursuant to their employment agreements or offer letters, each Named Executive Officer has a target bonus represented as a percent of base salary, or a target bonus percentage, each of which is set forth below:

Name	Target bonus
	%
Charles M. Baum, M.D., Ph.D.	50 %
Mark J. Gergen	40 %
Isan Chen, M.D.	40 %

In early 2016, the Compensation Committee established corporate goals for the Named Executive Officer bonus awards primarily focused on the advancement of our clinical stage development programs as follows:

MGCD265:

Establish response rate and clinical outcomes in ongoing Phase 2 non-small cell lung cancer clinical trial. This goal is structured to enable incremental bonus to be earned if overall response rates exceed certain thresholds established by the Board.

MGCD516:

Establish initial clinical activity in non-small cell lung cancer in ongoing Phase 1b clinical trial. This goal is structured to enable incremental bonus to be earned if overall response rates exceed certain thresholds established by the Board.

Mocetinostat

Enroll patients in a trial of the combination of mocetinostat and a checkpoint inhibitor. This goal is structured to enable incremental bonus to be earned if response rates exceed certain thresholds established by the Board.

The corporate goals also contain performance objectives related to advancing programs currently in discovery research and the Company's performance relative to its financial budgets.

Table of Contents

In early 2016, the Compensation Committee considered our overall performance and the performance of each named executive officer and determined that 85% of the corporate goals had been met. In consideration of this assessment, the Compensation Committee approved 2015 performance bonuses for each of the Named Executive Officers as follows:

Name	2015 Bonus Amount
Charles M. Baum, M.D., Ph.D.	\$225,500
Mark J. Gergen	134,800
Isan Chen, M.D.	130,900

Long-term Incentive Program

In connection with our long-term incentive program, we use stock options to incentivize the Named Executive Officers over a number of years. The exercise price, vesting and term of the stock options awarded are based on the terms of the 2013 Equity Incentive Plan (the "2013 EIP"). The Compensation Committee often makes initial stock option grants upon an executive's commencement of employment and may make annual stock option grants to some or all executives. The initial level of the long-term equity component is determined on a case-by-case basis and is more subjective than the other components of compensation. In determining the initial option award, the Board of Directors considers the most recent market evaluations that it has commissioned and other factors such as the candidate's expectations and any unique situation that may exist at the time of hiring. Annual stock option awards are determined by the Board of Directors based on availability of options, performance, current individual holdings and overall compensation.

Perquisites, Health, Welfare and Retirement Benefits

Our Named Executive Officers are eligible to participate in all of our employee benefit plans, including our medical, dental, group life and disability insurance plans and a retirement plan, which are provided to the Named Executive Officers on the same basis as other employees. We sponsor a 401(k) retirement plan for the Named Executive Officers. The 401(k) plan is a retirement savings defined contribution plan established in accordance with Section 401 of the Code that provides our employees with the opportunity to defer their eligible compensation on a pre-tax basis, up to statutorily prescribed annual limits and have this amount contributed to the 401(k) plan. In 2015, we provided a matching contribution of 4% up to a maximum annual contribution of \$2,500.

Outstanding Equity Awards at Fiscal Year End

The following table shows certain information regarding outstanding equity awards for the Named Executive Officers.

OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2015

Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable ⁽¹⁾	Number of Securities Underlying Unexercised Options (#) Unexercisable ⁽²⁾	Option Exercise Price (\$)	Option Expiration Date
Charles M. Baum, M.D., Ph.D.	11/13/2012	129,052	38,152	8.49	11/12/2017
	7/17/2013	165,792	41,448	8.50	7/16/2020
	5/21/2014	59,375	90,625	17.41	5/20/2024
	2/4/2015	—	85,000	21.51	2/3/2025
Mark J. Gergen	7/17/2013	79,200	52,800	8.50	7/16/2020
	5/21/2014	19,791	30,209	17.41	5/20/2024
	2/4/2015	—	30,000	21.51	2/3/2025
Isan Chen, M.D.	11/8/2013	55,959	53,375	15.79	11/7/2023
	5/21/2014	2,613	3,987	17.41	5/20/2024
	2/4/2015	—	30,000	21.51	2/3/2025

(1) The options have not been, and may never be, exercised and actual gains, if any, on exercise will depend on the value of the shares of common stock on the date of exercise.

Dr. Baum's, Mr. Gergen's and Dr. Chen's option grants vest over four years. Options granted in 2012 have a five (2) year life, options granted in July 2013 have a 7 year life and options granted November 2013 onwards have a 10 year life.

20

Table of Contents

We did not engage in any repricings or other modifications or cancellations to any outstanding stock option awards, including those of our Named Executive Officers during 2015 or 2014.

Employment Agreements with Named Executive Officers

We have entered into employment agreements with each of our Named Executive Officers, as further described below. The employment agreements provide that: (1) the officer will receive a base salary; (2) the officer will be eligible to receive an annual performance-based bonus; and (3) the officer will be eligible to receive grants of stock options which will be reviewed annually in accordance with our policies and will be eligible to participate in our fringe benefit programs. The employment agreements have an indefinite term.

Furthermore, the employment agreements provide for, among other things, specific non-competition and non-solicitation covenants, which remain in effect for one year following termination, as well as a confidentiality covenant which remains in effect indefinitely or until the confidential information is publicly disclosed. In addition, there are covenants stipulating that any intellectual property developed in the course of their employment is our property.

Dr. Baum

We entered into an amended and restated employment agreement with Dr. Baum in July 2013, which provides for:

- an initial annual base salary of \$500,000;
- an annual non-equity incentive plan bonus target of 50% of his annual base salary;
- the remainder of the initial equity component of his compensation of an aggregate of 398,000 shares, representing options to purchase 207,240 shares which he received on July 17, 2013 and
- participation in our fringe benefit programs that are available to all U.S.-based employees, which include health benefits and a 401(k) plan.

Dr. Baum's employment is at will and may be terminated at any time by either us or Dr. Baum. Dr. Baum also is entitled to termination benefits that are described in the "Potential Payments Upon Termination or Change of Control" below.

Mr. Gergen

We entered into an amended and restated employment agreement with Mr. Gergen in July 2013, which provides for:

- an initial annual base salary of \$375,000;
- a non-equity incentive plan bonus target of 40% of his annual base salary;
- an initial stock option award to purchase 132,000 shares which he received on July 17, 2013; and
- participation in our fringe benefit programs that are available to all U.S.-based employees, which include health benefits and a 401(k) plan.

Mr. Gergen's employment is at will and may be terminated at any time by either us or Mr. Gergen. Mr. Gergen also is entitled to receive termination benefits that are described in the "Potential Payments Upon Termination or Change of Control" below.

Dr. Chen

We entered into a letter agreement with Dr. Chen in August 2013, which provides for:

- an initial annual base salary of \$370,000;
- a non-equity incentive plan bonus target of 40% of his annual base salary;
- an initial stock option award to purchase 110,000 shares which he received on November 8, 2013 and
- participation in our fringe benefit programs that are available to all U.S.-based employees, which include health benefits and a 401(k) plan.

Dr. Chen's employment is at will and may be terminated at any time by either us or Dr. Chen. Dr. Chen is entitled to receive termination benefits that are described in the "Potential Payments Upon Termination or Change of Control" below.

Table of Contents

Potential Payments Upon Termination or Change of Control

Under the amended and restated employment agreements for Dr. Baum and Mr. Gergen and the letter agreement for Dr. Chen, all severance payments are conditioned upon the executive providing a release of claims against us.

The amended and restated employment agreements for Dr. Baum and Mr. Gergen stipulate that in the event of the executive's death or disability, we will pay all earned and accrued salary, bonus and vacation payments to the executive or the executive's estate.

The amended and restated employment agreements provide that in the event of a termination without cause for Dr. Baum or Mr. Gergen or, in the case of resignation for good reason, we will pay:

- any earned and accrued base salary, bonus and vacation pay;
- a lump sum cash payment equal to 12 months of base salary;
- with respect to Dr. Baum, 50% of his annual bonus prorated to his date of termination and 50% of his annual target bonus;
- with respect to Dr. Baum, continued vesting of all stock options for 12 months following termination; and
- with respect to Dr. Baum, payment of COBRA group health insurance premiums for up to 12 months.

Dr. Chen's letter agreement provides that in the event of a termination without cause, we will pay a lump sum payment equal to twelve months of salary and in the event of his termination without cause within twelve months following a change of control, full vesting acceleration of all stock options.

The amended and restated employment agreements for Dr. Baum and Mr. Gergen provide for termination benefits in connection with a change of control. The following benefits are provided to (1) Dr. Baum, in the event of his termination without cause or resignation for good reason within twelve months following a change of control or termination by Dr. Baum for any reason within three months following a change of control; and (2) Mr. Gergen, in the event of his termination without cause or resignation for good reason within twelve months following a change of control:

- any earned and accrued base salary and vacation pay;
- with respect to Mr. Gergen, 18 months base salary, payable in a lump sum;
- with respect to Dr. Baum, if he resigns for any reason within three months following a change of control, payments equal to 12 months of base salary and one times his annual target bonus or if he resigns for good reason or is terminated by us without cause within twelve months following a change of control, 24 months of base salary and two times his annual target bonus payable in a lump sum;
- with respect to Dr. Baum, full vesting acceleration of all stock options;
- with respect to Dr. Baum, payment of COBRA group health insurance premiums for up to 18 months; and

Under the terms of the 2013 EIP, options held by our executive officers may be subject to acceleration, termination or other treatment in connection with a change of control transaction or their termination of employment.

Equity Compensation Plans

2013 EIP

In May 2013 our Board of Directors adopted the 2013 Equity Incentive Plan (the "2013 EIP"). The 2013 EIP was approved by our stockholders in June 2013. The 2013 EIP is a continuation of and successor to the Amended and Restated Stock Option Plan of MethylGene Inc., our Canadian predecessor (the "Stock Option Plan") and no further grants will be made under the Stock Option Plan. Currently, the maximum number of shares that may be issued upon the exercise of incentive stock options ("ISOs") under the 2013 EIP is 4,000,000 shares. On April 3, 2014, the Board of Directors approved an amendment to the 2013 EIP, which was approved by our stockholders at the 2014 annual meeting of stockholders, increasing the number of shares authorized for issuance under the 2013 EIP by 900,000 shares. On April 7, 2015, the Compensation Committee of the Board of Directors approved an additional amendment to the 2013 EIP, which was approved by our stockholders at the 2015 annual meeting of stockholders, increasing the number of shares authorized for issuance under the 2013 EIP by an additional 1,500,000 shares.

Table of Contents

As of December 31, 2015, 1,421,661 shares were available for the grant of future stock awards under the 2013 EIP. As of December 31, 2015, 1,714,670 shares were subject to outstanding stock options awards and 19,282,935 shares of our common stock were outstanding.

Stock Awards. The 2013 EIP provides for the grant of ISOs, nonstatutory stock options ("NSOs"), stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards, and other forms of equity compensation (collectively, stock awards), all of which may be granted to employees, including officers, non-employee directors and consultants of us and our affiliates. Additionally, the 2013 EIP provides for the grant of performance cash awards. ISOs may be granted only to employees. All other awards may be granted to employees, including officers, and to non-employee directors and consultants.

Share Reserve. Currently, the aggregate number of shares of our common stock authorized for issuance pursuant to stock awards under the 2013 EIP since its adoption in 2013 would not exceed 3,497,444 shares consisting of (1) 400,000 shares originally approved by our stockholders in June 2013, (2) 900,000 shares approved by our stockholders at our annual meeting of stockholders in May 2014, (3) 1,500,000 shares approved by our stockholders in May 2015 (4) the number of shares that remained available for grant under our Stock Option Plan at the time the 2013 EIP became effective and (5) shares subject to stock awards previously granted and outstanding under the Stock Option Plan and the 2013 EIP that may be returned to the 2013 EIP share reserve upon expiration, termination or cancellation of such stock awards.

No person may be granted stock awards covering more than 500,000 shares of our common stock under the 2013 EIP during any calendar year pursuant to stock options, stock appreciation rights and other stock awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the fair market value on the date the stock award is granted. Additionally, no person may be granted in a calendar year a performance stock award covering more than 500,000 shares or a performance cash award having a maximum value in excess of \$1,000,000. These limits are designed to allow us to grant awards that are intended to be exempt from the \$1,000,000 limitation on the income tax deductibility of compensation paid to any covered employee imposed by Section 162(m) of the Code. If a stock award granted under the 2013 EIP expires or otherwise terminates without being exercised in full, or is settled in cash, the shares of our common stock not acquired pursuant to the stock award again will become available for subsequent issuance under the 2013 EIP. In addition, the following types of shares under the 2013 EIP may become available for the grant of new stock awards under the 2013 EIP: (1) shares that are forfeited to or repurchased by us prior to becoming fully vested; (2) shares withheld to satisfy income or employment withholding taxes; or (3) shares used to pay the exercise or purchase price of a stock award. Shares issued under the 2013 EIP may be previously unissued shares or reacquired shares bought by us on the open market.

Administration. Our Board of Directors, or a duly authorized committee thereof, has the authority to administer the 2013 EIP. Our Board of Directors may also delegate to one or more of our officers the authority to (1) designate employees (other than other officers) to be recipients of certain stock awards, and (2) determine the number of shares of common stock to be subject to such stock awards. Subject to the terms of the 2013 EIP, our Board of Directors or the authorized committee, referred to herein as the plan administrator, determines recipients, dates of grant, the numbers and types of stock awards to be granted and the terms and conditions of the stock awards, including the period of their exercisability and vesting schedule applicable to a stock award. Subject to the limitations set forth below, the plan administrator will also determine the exercise price, strike price or purchase price of awards granted and the types of consideration to be paid for the award.

The plan administrator has the authority to modify outstanding awards under the 2013 EIP. Subject to the terms of the 2013 EIP, the plan administrator has the authority to reduce the exercise, purchase or strike price of any outstanding stock award, cancel any outstanding stock award in exchange for new stock awards, cash or other consideration, or take any other action that is treated as a repricing under U.S. generally accepted accounting principles, with the consent of any adversely affected participant.

Stock Options. ISOs and NSOs are granted pursuant to stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for a stock option, within the terms and conditions of the 2013 EIP, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2013 EIP vest at the rate specified by the plan administrator.

The plan administrator determines the term of stock options granted under the 2013 EIP, up to a maximum of ten years. Unless the terms of an option holder's stock option agreement provide otherwise, if an option holder's service relationship with us, or any of our affiliates, ceases for any reason other than disability, death or cause, the option holder may generally exercise any vested options for a period of three months following the cessation of service. The option term may be extended in the event that exercise of the option following such a termination of service is prohibited by applicable securities laws or our insider trading policy. If an option holder's service relationship with us or any of our affiliates ceases due to disability or death, or an option holder dies within a certain period following cessation of service, the option holder or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for

Table of Contents

cause, options generally terminate immediately upon the termination of the individual for cause. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the plan administrator and may include (1) cash, check, bank draft or money order, (2) a broker-assisted cashless exercise, (3) the tender of shares of our common stock previously owned by the option holder, (4) a net exercise of the option if it is an NSO, and (5) other legal consideration approved by the plan administrator.

Unless the plan administrator provides otherwise, options generally are not transferable except by will, the laws of descent and distribution, or pursuant to a domestic relations order. An option holder may designate a beneficiary, however, who may exercise the option following the option holder's death.

Changes to Capital Structure. In the event that there is a specified type of change in our capital structure, such as a stock split or recapitalization, appropriate adjustments will be made to (a) the class and maximum number of shares reserved for issuance under the 2013 EIP, (b) the class and maximum number of shares that may be issued upon the exercise of ISOs, (c) the class and maximum number of shares subject to stock awards that can be granted in a calendar year (as established under the 2013 EIP pursuant to Section 162(m) of the Internal Revenue Code) and (d) the class and number of shares and exercise price, strike price, or purchase price, if applicable, of all outstanding stock awards.

Corporate Transactions. In the event of certain specified significant corporate transactions, the plan administrator has the discretion to take any of the following actions with respect to stock awards:

- arrange for the assumption, continuation or substitution of a stock award by a surviving or acquiring entity or parent company;
- arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or acquiring entity or parent company;
- accelerate the vesting of the stock award and provide for its termination prior to the effective time of the corporate transaction;
- arrange for the lapse of any reacquisition or repurchase right held by us;
- cancel or arrange for the cancellation of the stock award in exchange for such cash consideration, if any, as our Board of Directors may deem appropriate; or
- make a payment equal to the excess of (a) the value of the property the participant would have received upon exercise of the stock award over (b) the exercise price otherwise payable in connection with the stock award.

Our plan administrator is not obligated to treat all stock awards, even those that are of the same type, in the same manner.

Under the 2013 EIP, a corporate transaction is generally the consummation of (1) a sale or other disposition of all or substantially all of our consolidated assets, (2) a sale or other disposition of at least 90% of our outstanding securities, (3) a merger, consolidation or similar transaction following which we are not the surviving corporation, or (4) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by

virtue of the transaction.

Change of Control. The plan administrator may provide, in an individual award agreement or in any other written agreement between a participant and us that the stock award will be subject to additional acceleration of vesting and exercisability in the event of a change of control. Under the 2013 EIP, a change of control is generally (1) the acquisition by a person or entity of more than 50% of our combined voting power other than by merger, consolidation or similar transaction; (2) a consummated merger, consolidation or similar transaction immediately after which our stockholders cease to own more than 50% of the combined voting power of the surviving entity; (3) a consummated sale, lease or exclusive license or other disposition of all or substantially of our consolidated assets; or (4) when a majority of the Board of Directors becomes comprised of individuals whose nomination, appointment, or election was not approved by a majority of the Board of Directors members or their approved successors.

Amendment and Termination. Our Board of Directors has the authority to amend, suspend, or terminate our 2013 EIP, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. No ISOs may be granted after the tenth anniversary of the date our Board of Directors adopted our 2013 EIP.

24

Table of Contents

Stock Option Plan

The board of directors and stockholders of MethylGene Inc., our Canadian predecessor, originally approved our Stock Option Plan in 1997 and approved various amendments, most recently in June 2012. As of December 31, 2015, we had 218,210 shares of common stock reserved for issuance and issuable under the Stock Option Plan and 110,644 shares of common stock had been issued under the Stock Option Plan. The 2013 EIP is a continuation of and successor to the Stock Option Plan and accordingly, no further grants are being made under the Stock Option Plan effective July 12, 2013.

The exercise price of any option granted was based on our closing stock price as reported on the Toronto Stock Exchange ("TSX") at the end of the day prior to the option award date. In the event that there was no trading on the day prior to the option award date then the exercise price of the option award was determined by the volume-weighted average price on the five previous days on which the shares were traded. The period during which an option is exercisable and the vesting period of options were determined by the Board of Directors, in its sole discretion, at the time of granting the particular option award. The period during which an option is exercisable shall not, subject to the provisions of the Stock Option Plan, exceed 10 years from the date the option is granted. Since 2005, most options granted under the Stock Option Plan expire five or seven years after the date the option is granted. The option term is subject to extension under certain circumstances if the termination date occurs during a blackout period (as that term is defined in the Stock Option Plan). Under certain circumstances, including mergers, amalgamations and consolidations or in the event of an offer to purchase the shares of common stock, the exercise period of an option may be accelerated.

Options are not transferable and may be exercised by optionees while such optionees remain an employee, officer, director or consultant. If an optionee resigns his/her employment or if he/she ceases to be a director or consultant for any reason other than death, as the case may be, his/her non-vested options expire on the date termination while vested options expire 90 days after the date of his/her termination subject to the Board of Directors' right to alter any vesting period. If an optionee's employment, directorship or consulting agreement, as the case may be, is terminated by reason of death, his/her options will expire 180 days following the date of such termination subject to the Board of Directors' right to alter any vesting period. Upon an optionee's employment or a consultant's consultation agreement being terminated for just cause or resignation or termination at a time at which grounds for dismissal or termination for just cause exist, or upon an optionee being removed from office as a director, any option or the unexercised portion thereof granted to him/her shall terminate forthwith subject to the Board of Directors' right to alter any vesting period. Under the Stock Option Plan, the Board of Directors may, at any time, subject to regulatory approval, amend, suspend or terminate the Stock Option Plan in whole or in part. Without obtaining stockholder approval, the Stock Option Plan may be amended by the Board of Directors for any purpose whatsoever, including, without limitation for the purpose of:

- amendments of a "housekeeping" nature;
- a change to the vesting provisions of an option;
- a change to the termination provisions of an option or the Stock Option Plan which does not entail an extension beyond the original expiration date;
- the addition of a cashless exercise feature payable in cash or securities; and
- the addition of any form of financial assistance under the Stock Option Plan; provided, however, that no such amendment may:
 - increase the maximum number of shares of common stock issuable pursuant to the Stock Option Plan;
 - change the manner of determining the minimum option price;
 - alter the blackout expiration term;
 - reduce the option price per share for options granted to insiders under the Stock Option Plan;
 - extend the term of an option granted to insiders under the Stock Option Plan (subject to the blackout expiration term);
 - remove or exceed the insider participation limit under the Stock Option Plan;
 - amend the amending provision of the Stock Option Plan; or

Table of Contents

without the consent of the optionee, adversely alter or impair any option previously granted to an optionee under the Stock Option Plan, without the consent of our stockholders, except to the extent required by law or by the regulations, rules, by-laws or policies of any regulatory authority or stock exchange.

In the event we propose to consolidate, merge, amalgamate, reorganize, be arranged or undergo an internal reorganization (other than with our wholly-owned subsidiary or to liquidate, dissolve or wind-up, or in the event an offer to purchase the shares of common stock or any part thereof shall be made to all holders of shares of common stock (hereinafter individually referred to as an "Event"), we shall have the right, upon written notice thereof to each optionee holding options under the Stock Option Plan, to permit the exercise of all such options within the 30-day period next following the date of such notice and to determine that upon the expiration of such 30-day period, all rights of optionees to such options or to exercise same (to the extent not theretofore exercised) shall ipso facto terminate and cease to have further force or effect whatsoever, provided, however, that if any Event results in a party or parties acting in concert obtaining control (as that term is defined in the Stock Option Plan) of us, we will give notice to each optionee of the acquisition of control and all unexercised options, including all options which have not yet vested, will immediately become exercisable at the option price for the 30-day period following the date of the Event, at the expiration of which period all unexercised options will be deemed to have vesting periods and vesting conditions originally applicable prior to such Event.

2013 Employee Stock Purchase Plan

In May 2013 our Board of Directors adopted the 2013 Employee Stock Purchase Plan (the "ESPP"). The purpose of the ESPP is to retain the services of new employees and secure the services of new and existing employees while providing incentives for such individuals to exert maximum efforts toward our success and that of our affiliates. Share Reserve. The ESPP authorizes the issuance of 300,000 shares of our common stock pursuant to purchase rights granted to our employees or to employees of any of our designated affiliates. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code. In December 2014, the ESPP became effective and the first six month purchase period began. As of the date hereof, 32,645 shares of our common stock have been purchased under the ESPP.

Administration. Our Board of Directors, or a duly authorized committee thereof, has the authority to administer the ESPP. The ESPP is implemented through a series of offerings of purchase rights to eligible employees. Under the ESPP, we may specify offerings with durations of not more than 27 months, and may specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for employees participating in the offering. An offering may be terminated under certain circumstances.

Payroll Deductions. Generally, all regular employees, including executive officers, employed by us or by any of our designated affiliates, may participate in the ESPP and may contribute, normally through payroll deductions, up to 15% of their earnings for the purchase of our common stock under the ESPP. Unless otherwise determined by our Board of Directors, common stock will be purchased for accounts of employees participating in the ESPP at a price per share equal to the lower of (1) 85% of the fair market value of a share of our common stock on the first date of an offering or (2) 85% of the fair market value of a share of our common stock on the date of purchase.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in the ESPP, as determined by our Board of Directors: (1) customarily employed for more than 20 hours per week, (2) customarily employed for more than five months per calendar year or (3) continuous employment with us or one of our affiliates for a period of time (not to exceed two years). No employee may purchase shares under the ESPP at a rate in excess of \$25,000 worth of our common stock based on the fair market value per share of our common stock at the beginning of an offering for each year such a purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under the ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our outstanding capital stock measured by vote or value pursuant to Section 424(d) of the Code.

Changes to Capital Structure. In the event that there occurs a change in our capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or similar transaction, the Board of Directors will make appropriate adjustments

to (1) the number of shares reserved under the ESPP and (2) the number of shares and purchase price of all outstanding purchase rights.

Corporate Transactions. In the event of certain significant corporate transactions, including: (1) a sale of all our assets, (2) the sale or disposition of 90% of our outstanding securities, (3) the consummation of a merger or consolidation where we do not survive the transaction, and (4) the consummation of a merger or consolidation where we do survive the transaction but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction, any then-outstanding rights to purchase our stock under the ESPP may be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects

Table of Contents

not to assume, continue or substitute for such purchase rights, then the participants' accumulated payroll contributions will be used to purchase shares of our common stock within ten business days prior to such corporate transaction, and such purchase rights will terminate immediately.

Plan Amendments, Termination. Our Board of Directors has the authority to amend or terminate our ESPP, provided that except in certain circumstances any such amendment or termination may not materially impair any outstanding purchase rights without the holder's consent. We will obtain stockholder approval of any amendment to our ESPP as required by applicable law or listing requirements.

NON-EMPLOYEE DIRECTOR COMPENSATION

The Compensation Committee reviews and recommends the compensation of non-employee directors to the Board of Directors on an annual basis. The following table summarizes the compensation earned by or paid to each of the non-employee directors in 2015:

Name	Fees		Total (\$)
	Earned or Paid in Cash (\$)	Option Awards (\$) ⁽¹⁾	
Henry J. Fuchs, M.D.	52,000	299,917	351,917
Craig Johnson	45,000	299,917	344,917
Rodney W. Lappe, Ph.D. ⁽²⁾	68,500	299,917	368,417
William R. Ringo	57,500	299,917	357,417
Michael Grey	57,685	299,917	357,602

In accordance with SEC rules, this column reflects the aggregate grant date fair value of the option awards granted computed in accordance with ASC Topic 718 for stock-based compensation transactions. Assumptions used in the calculation of these amounts are included in Note 9 to our consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2015. These amounts do not reflect the actual economic value that will be realized by the non-employee directors upon the vesting of the stock options, the exercise of the stock options, or the sale of the shares of common stock underlying such stock options.

(1) Dr. Lappe's fees were paid to Tavistock Foundation Inc. which is affiliated with Boxer Capital.

Effective January 1, 2016, the Compensation Committee approved changes to the cash retainer element and equity compensation based upon a compensation assessment conducted by Radford. The following table summarizes the current annual compensation for non-employee directors, pursuant to our amended and restated non-employee director compensation policy:

Cash Compensation		Stock-Based Compensation	
Board of Directors annual retainer	\$40,000	Number of shares underlying stock option granted upon joining the Board	25,000
Incremental annual retainer for the Chairman	\$25,000	Number of shares underlying annual stock options granted upon re-election to serve on the Board	10,000
Committee Chair annual retainer			
Audit	\$15,000		
Compensation	\$10,000		
Nominating and Corporate Governance	\$7,500		
Committee member annual retainer			
Audit	\$7,500		
Compensation	\$5,000		

Nominating and Corporate Governance	\$3,750
--	---------

The option granted upon joining the Board vests in a series of 36 substantially equal monthly installments after the date of grant, and the option granted upon re-election to serve on the Board vests in 12 substantially equal monthly installments after the date of grant. Director's fees are prorated to the date the director is appointed or elected. In addition, directors are reimbursed for all reasonable and documented travel-related expenses incurred by them in order to attend Board of Directors and committee meetings, subject to our travel policy.

27

Table of Contents

Limitation of Liability and Indemnification

Our amended and restated certificate of incorporation limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- breach of their duty of loyalty to the corporation or its stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- transaction from which the directors derived an improper personal benefit.

Our amended and restated certificate of incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. These limitations also do not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Our bylaws provide that we will indemnify our directors and executive officers, and may indemnify other officers, employees and other agents, to the fullest extent permitted by law. Our bylaws also provide that we are obligated to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding and also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether our amended and restated bylaws permit such indemnification. We have obtained a directors' and officers' liability insurance policy.

We have entered, and intend to continue to enter, into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our bylaws. These agreements, among other things, require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors or executive officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

Table of Contents**CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS**

The following is a description of transactions since January 1, 2015 to which we have been a party, in which the amount involved exceeded or will exceed \$120,000, and in which any of our executive officers, directors or holders of more than 5% of our common stock, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest, other than compensation, termination and change of control arrangements, which are described under "Executive and Director Compensation."

Participation in Offering

In February 2015, we completed a public offering pursuant to which we issued an aggregate 2,587,500 shares of our common stock at \$20.00 per share. The following table sets forth the number of shares of common stock purchased by holders of more than 5% of our common stock or entities affiliated with them, directors and entities affiliated with certain of our directors:

Name	Shares Of Common Stock	Purchase Price
Baker Bros. Advisors, LLC.	425,000	\$ 20.00
Tavistock Life Sciences, LLC*	550,000	\$ 20.00
FMR LLC	600,000	\$ 20.00
VenBio Select Advisor LLC	—	\$ 20.00

* Tavistock Life Sciences, LLC is affiliated with Boxer Capital.

Subsequently, in September 2015, we completed an additional public offering of 2,250,000 shares of our common stock at \$45.00 per share. The following table sets forth the number of shares of common stock purchased by holders of more than 5% of our common stock or entities affiliated with them, directors and entities affiliated with certain of our directors:

Name	Shares Of Common Stock	Purchase Price
Baker Bros. Advisors, LLC	150,000	\$ 45.00
Tavistock Life Sciences, LLC*	75,000	\$ 45.00
FMR LLC	337,500	\$ 45.00
VenBio Select Advisor LLC	222,222	\$ 45.00

* Tavistock Life Sciences, LLC is affiliated with Boxer Capital.

Employment Arrangements

We currently maintain written employment agreements with several of our Named Executive Officers, as described in "Executive Compensation."

Stock Options Granted to Executive Officers and Directors

We have granted stock options to our executive officers and directors, as more fully described in "Executive Compensation."

Indemnification Agreements

We have entered, and intend to continue to enter, into separate indemnification agreements with each of our directors and executive officers, as described in "Executive Compensation—Limitation of Liability and Indemnification."

Director Affiliations With Our Principal Stockholders

Some of our directors that served during 2015 are affiliated with our principal stockholders as indicated in the table below:

Director	Affiliation
Rodney W. Lappe, Ph.D.	Boxer Capital, LLC

29

Table of Contents

Board Observer and Nomination Rights

As long as either Baker Bros. or Boxer Capital beneficially owns at least 10% of our issued and outstanding shares of common stock, calculated on a partially diluted basis (assuming only the exercise of any convertible securities or rights to acquire shares of common stock of such stockholders), then Baker Bros. and Boxer Capital, as the case may be, has the right to appoint an observer to the Board of Directors. Each observer has the right to receive notice of and attend the meetings of the Board of Directors, and has the right to address the Board of Directors at any of its meetings, but does not have any right to vote at any meeting of the Board of Directors.

In addition to appointing an observer, as long as either Baker Bros. or Boxer Capital owns at least 10% of the issued and outstanding shares of common stock, calculated on a partially diluted basis (assuming only the exercise of any convertible securities or rights to acquire shares of common stock of such stockholders), then Baker Bros. and Boxer Capital, as the case may be, has the right, but not the obligation, to nominate one person to the Board of Directors. We are required to include each of Baker Bros.' and Boxer Capital's director nominees in our proposed slate of directors at each annual or special (if applicable) meeting and recommend that stockholders vote in favor of such nominee.

Policies and Procedures for Transactions with Related Persons

We have adopted a written related-person transactions policy that sets forth our policies and procedures regarding the identification, review, consideration, approval and oversight of "related-person transactions." For purposes of our policy only, a "related-person transaction" is a past, present or future transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we and any "related person" are, were or will be participants involving an amount that exceeds the lesser of \$120,000 or 1% of our average total assets for the last two fiscal years.

Transactions involving compensation for services provided to us by an employee, consultant or director will not be considered related-person transactions under this policy. A "related person" as determined since the beginning of our last fiscal year, is any executive officer, director or a holder of more than five percent of our common stock, including any of their immediate family members and any entity owned or controlled by such persons.

The policy imposes an affirmative duty upon each director and executive officer to identify, and we will request that significant stockholders identify, any transaction involving them, their affiliates or immediate family members that may be considered a related party transaction before such person engages in the transaction. Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-person transaction to our Audit Committee (or, where review by our Audit Committee would be inappropriate, to another independent body of our Board of Directors) for review. The presentation must include a description of, among other things, the material facts, the direct and indirect interests of the related persons, the benefits of the transaction to us and whether any alternative transactions are available. In considering related-person transactions, our Audit Committee or other independent body of our Board of Directors takes into account the relevant available facts and circumstances including, but not limited to:

- the risks, costs and benefits to us of the transaction;
- the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the terms of the transaction;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties or to or from our employees generally.

In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval. Our policy requires that, in reviewing a related party transaction, our Audit Committee must consider, in light of known circumstances, and determine in the good faith exercise of its discretion whether the transaction is in, or is not inconsistent with, the best interests of us and our stockholders.

Compensation Committee Interlocks and Insider Participation

None of our current or former executive officers serves as a member of our Compensation Committee. None of our officers serves, or has served during the last completed fiscal year on the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our Board of Directors or our Compensation Committee.

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for Annual Meeting materials with respect to two or more stockholders sharing the same address by delivering a single set of Annual Meeting materials to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies. This year, a number of brokers with account holders who are Mirati Therapeutics, Inc. stockholders will be "householding" our proxy materials. A single set of Annual Meeting materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate set of Annual Meeting materials, please notify your broker or Mirati Therapeutics, Inc. Direct your written request to Mirati Therapeutics, Inc., Attn: Vice President of Investor Relations and Corporate Communications, 9393 Towne Centre Drive, Suite 200, San Diego, CA 92121 or contact Mark Gergen at (858) 332-3410. Stockholders who currently receive multiple copies of the Annual Meeting materials at their addresses and would like to request "householding" of their communications should contact their brokers.

Table of Contents

OTHER MATTERS

The Board of Directors knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board of Directors,

Mark J. Gergen
Secretary
April 19, 2016

31

Table of Contents

Table of Contents

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:

The Notice and Proxy Statement and Form 10-K are available at www.proxyvote.com.

M70109-P50543

MIRATI THERAPEUTICS, INC.

Annual Meeting of Stockholders

May 18, 2016 9:00 AM

This proxy is solicited by the Board of Directors

The stockholder(s) hereby appoint(s) Charles M. Baum and Mark J. Gergen, or either of them, as proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of common stock of MIRATI THERAPEUTICS, INC. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholder(s) to be held at 9:00 AM, PDT on 5/18/2016, at www.virtualshareholdermeeting.com/MRTX2016, and any adjournment or postponement thereof.

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

Continued and to be signed on reverse side