IDERA PHARMACEUTICALS, INC. Form DEF 14A April 29, 2015 Table of Contents

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A

(RULE 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the

Securities Exchange Act of 1934

(Amendment No.)

Filed by the Registrant x Filed by a Party other than the Registrant "

Check the appropriate box:

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

IDERA PHARMACEUTICALS, INC.

(Name of Registrant as Specified in its Charter)

 $(Name\ of\ Person(s)\ Filing\ Proxy\ Statement,\ if\ Other\ than\ the\ Registrant)$

Payment of Filing Fee (Check the appropriate box):				
X	No f	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:		
		paid previously with preliminary materials.		
	Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.			
	1)	Amount Previously Paid:		
	2)	Form, Schedule or Registration Statement No.:		

2)	Filing Party
ור	CHING PARTY

4) Date Filed:

Record Date:

IDERA PHARMACEUTICALS, INC.

167 Sidney Street

Cambridge, Massachusetts 02139

NOTICE OF 2015 ANNUAL MEETING OF STOCKHOLDERS

Date and Time: Monday, June 8, 2015 at 2:00 p.m., local time Idera Pharmaceuticals, Inc. Place: 167 Sidney Street Cambridge, Massachusetts 02139 **Items of Business:** At our 2015 annual meeting of stockholders we will ask our stockholders to: Elect two Class II directors to our board of directors for terms to expire at the 2018 annual meeting of stockholders; Approve, by non-binding vote, executive compensation; Approve an amendment to our 2013 Stock Incentive Plan to increase the number of shares of common stock authorized for issuance under our 2013 Stock Incentive Plan and make certain other changes related to the vesting of awards issued under our 2013 Stock Incentive Plan, as set forth in Appendix A attached to the accompanying proxy statement; Ratify the selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2015; and Transact any other business as may properly come before the 2015 annual meeting or any postponement or adjournment of the 2015 annual meeting. The board of directors has no knowledge of any other business to be transacted at the

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of business on April 20, 2015.

You may vote at the 2015 annual meeting if you were a stockholder of record at the close

2015 annual meeting.

Proxy Voting:

It is important that your shares be represented and voted at the annual meeting. Whether or not you plan to attend the 2015 annual meeting, please mark, sign, date and promptly mail your proxy card in the enclosed postage-paid envelope or follow the instructions on the proxy card to vote by telephone or over the internet. You may revoke your proxy at any time before its exercise at the 2015 annual meeting.

By order of the board of directors,

Louis J. Arcudi, III Secretary Cambridge, Massachusetts April 29, 2015

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IDERA PHARMACEUTICALS, INC.

167 Sidney Street

Cambridge, Massachusetts 02139

PROXY STATEMENT

For our Annual Meeting of Stockholders to be held on June 8, 2015

Idera Pharmaceuticals, Inc., a Delaware corporation, which is referred to as we, us, the Company or Idera in this proxy statement, is sending you this proxy statement and the enclosed proxy card because our board of directors is soliciting your proxy to vote at our 2015 annual meeting of stockholders, or the 2015 annual meeting. The 2015 annual meeting will be held on Monday, June 8, 2015, at 2:00 p.m., local time, at our office located at 167 Sidney Street, Cambridge, Massachusetts 02139. If the 2015 annual meeting is adjourned for any reason, then proxies submitted may be used at any adjournment of the 2015 annual meeting.

This proxy statement summarizes information about the proposals to be considered at the 2015 annual meeting and other information you may find useful in determining how to vote. The proxy card is the means by which you actually authorize another person to vote your shares in accordance with your instructions.

We are mailing this proxy statement and the enclosed proxy card to stockholders on or about May 6, 2015.

In this mailing, we are also including copies of our annual report to stockholders for the year ended December 31, 2014, or 2014 Annual Report. Our annual report on Form 10-K for the year ended December 31, 2014, as filed with the Securities and Exchange Commission, or the SEC, on March 12, 2015, including our audited financial statements, is included in our 2014 Annual Report and is also available free of charge on our website, www.iderapharma.com, where it can be accessed by clicking Investors and then SEC Filings, or through the SEC s electronic data system at www.sec.gov. To request a printed copy of our Notice of Annual Meeting, Proxy Statement and 2014 Annual Report, which we will provide to you free of charge, or to obtain directions to be able to attend the 2015 annual meeting and vote in person, write to Investor Relations, Idera Pharmaceuticals, Inc., 167 Sidney Street, Cambridge, Massachusetts 02139, call our toll-free number 1 (877) 888-6550, or email Investor Relations at ir@iderapharma.com.

Important Notice Regarding the Availability of

Proxy Materials for the 2015 Annual Meeting

to Be Held on June 8, 2015:

The Notice of Annual Meeting, Proxy Statement and 2014 Annual Report are available at http://ir.iderapharma.com/phoenix.zhtml?c=208904&p=proxy.

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INFORMATION ABOUT THE 2015 ANNUAL MEETING

Who may vote?

Holders of record of our common stock at the close of business on April 20, 2015, the record date for the 2015 annual meeting, are entitled to vote on each matter properly brought before the 2015 annual meeting. Holders of our common stock will be entitled to one vote for each share of common stock held as of the record date. As of the close of business on April 20, 2015, the record date for the 2015 annual meeting, we had 117,875,318 shares of common stock outstanding.

How do I vote my shares if I am a stockholder of record?

If you are a stockholder of record (meaning that you hold shares in your name in the records of our transfer agent, Computershare Trust Company, N.A., and that your shares are not held in street name by a bank or brokerage firm), you may vote your shares in any one of the following ways:

You may vote by mail. To vote by mail, you need to complete, date and sign the proxy card that accompanies this proxy statement and promptly mail it in the enclosed postage-prepaid envelope. You do not need to put a stamp on the enclosed envelope if you mail it from within the United States.

You may vote by telephone. To vote by telephone through services provided by Computershare Trust Company, N.A., call 1-800-652-VOTE (8683), and follow the instructions provided on the proxy card that accompanies this proxy statement. If you vote by telephone, you do not need to complete and mail your proxy card.

You may vote over the internet. To vote over the internet through services provided by Computershare Trust Company, N.A., please go to the following website: http://www.investorvote.com/IDRA and follow the instructions at that site for submitting your proxy. If you vote over the internet, you do not need to complete and mail your proxy card.

You may vote in person. If you attend the 2015 annual meeting, you may vote by delivering your completed proxy card in person or you may vote by completing a ballot at the 2015 annual meeting. Ballots will be available at the 2015 annual meeting. Your proxy will only be valid if you complete and return the proxy card, vote by telephone or vote over the internet at or before the 2015 annual meeting. The persons named in the proxy card will vote the shares you own in accordance with your instructions on your proxy card, in your vote by telephone or in your vote over the internet. If you return the proxy card, vote by telephone or vote over the internet, but do not give any instructions on a particular matter described in this proxy statement, the persons named in the proxy card will vote the shares you own in accordance with the recommendations of our board of directors.

How do I vote my shares if I hold them in street name?

If the shares you own are held in street name by a bank or brokerage firm, your bank or brokerage firm, as the record holder of your shares, is required to vote your shares according to your instructions. In order to vote your shares, you will need to follow the directions that your bank or brokerage firm provides to you. Many banks and brokerage firms solicit voting instructions over the internet or by telephone.

Under applicable stock exchange rules, banks or brokerage firms subject to these rules that hold shares in street name for customers have the discretion to vote those shares with respect to certain matters if they have not received instructions from the beneficial owners. Banks or brokerage firms will have this discretionary authority with respect to routine or discretionary matters. Among the proposals to be presented at the 2015 annual meeting, the ratification of the selection of our independent registered public accounting firm is a discretionary matter, and banks and brokerage firms are permitted to vote your shares even if you have not given voting

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instructions. The election of directors, the approval of a non-binding vote on executive compensation and the approval of the proposed amendment to our 2013 Stock Incentive Plan are non-routine or non-discretionary matters, and banks and brokerage firms cannot vote your shares on such proposals if you have not given voting instructions. Broker non-votes occur when a bank or brokerage firm submits a proxy for shares but does not indicate a vote for a particular proposal because the bank or brokerage firm either does not have authority to vote on that proposal and has not received voting instructions from the beneficial owner or has discretionary authority but chooses not to exercise it. The effect of broker non-votes is discussed below in the answer to the question. What vote is required to approve each matter and how will votes be counted?

Even if your shares are held in street name, you are welcome to attend the 2015 annual meeting. If your shares are held in street name, you may not vote your shares in person at the 2015 annual meeting unless you obtain a proxy, executed in your favor, from the holder of record (i.e., your bank or brokerage firm). If you hold your shares in street name and wish to vote in person, please contact your bank or brokerage firm before the 2015 annual meeting to obtain the necessary proxy from the holder of record.

How may I change or revoke my vote?

If you are a stockholder of record, even if you complete and return a proxy card or vote by telephone or over the internet, you may change or revoke your vote at any time before your proxy is exercised by taking one of the following actions:

send written notice to our Secretary, Louis J. Arcudi, III, at our address above, stating that you wish to revoke your vote;

deliver to us another signed proxy card with a later date or vote by telephone or over the internet at a later date; or

attend the 2015 annual meeting, notify our Secretary that you are present and then vote by ballot. If you own shares in street name, your bank or brokerage firm should provide you with instructions for changing or revoking your vote.

What constitutes a quorum?

In order for business to be conducted at the 2015 annual meeting, a quorum must be present. A quorum consists of the holders of a majority of the shares of our common stock issued, outstanding and entitled to vote at the 2015 annual meeting.

Shares of voting stock present in person or represented by proxy (including broker non-votes and shares that are abstained or withheld or with respect to which no voting instructions are provided for one or more of the matters to be voted upon) will be counted for the purpose of determining whether a quorum exists.

If a quorum is not present, the 2015 annual meeting will be adjourned until a quorum is obtained.

What vote is required to approve each matter and how will votes be counted?

The table below sets forth the vote required for each matter being submitted to our stockholders at the 2015 annual meeting to be approved and the effect that abstentions, withheld votes and broker non-votes will have on the outcome of voting on each proposal that is being submitted to our stockholders for approval at the 2015 annual meeting.

		Abstentions/	
Proposal Election of Directors	Affirmative Vote Required Plurality of votes cast by holders of common stock entitled to vote	Withholds No effect(1)	Broker Non- Votes No effect
(Proposal 1)			
Advisory Vote on Executive Compensation	Majority of common stock present or represented and voting on the matter	No effect	No effect
(Proposal 2)			
Amendment of 2013 Stock Incentive Plan	Majority of common stock present or represented and voting on the matter	No effect	No effect
(Proposal 3)			
Ratification of Selection of Ernst & Young LLP	Majority of common stock present or represented and voting on the matter	No effect	No effect
(Proposal 4)			

⁽¹⁾ You may vote FOR all of the director nominees, WITHHOLD your vote from all of the director nominees or WITHHOLD your vote from any of the director nominees.

Each share of common stock will be counted as one vote.

How does the board of directors recommend that I vote?

Our board of directors recommends that you vote as follows:

To elect the two nominees to our board of directors (Proposal One); and

FOR Proposal Two, Proposal Three and Proposal Four.

Under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and related SEC regulations, the vote on executive compensation, as described in greater detail in Proposal Two set forth elsewhere in this proxy statement, is an advisory vote, meaning it is non-binding. The vote on the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm, as described in greater detail in Proposal Four, is also advisory. Our board will carefully consider the outcome of each of these votes.

Will any other business be conducted at the 2015 annual meeting of stockholders?

Our board of directors does not know of any other business to be conducted or matters to be voted upon at the 2015 annual meeting. If any other matter properly comes before the 2015 annual meeting, the persons named in the proxy card that accompanies this proxy statement will exercise their judgment in deciding how to vote or otherwise act with respect to that matter at the 2015 annual meeting.

Who is making and paying for the solicitation of proxies and how is it made?

We are making the solicitation and will bear the costs of soliciting proxies. In addition to solicitations by mail, our directors, officers and employees, without additional remuneration, may solicit proxies by telephone, facsimile, email, personal interviews and other means. We may retain a proxy solicitation firm to assist in the solicitation of proxies in connection with the 2015 annual meeting. In that event, we will pay such firm customary fees, which we expect would be approximately \$10,000, plus expenses. We have requested that

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brokerage houses, custodians, nominees and fiduciaries forward copies of the proxy materials to the persons for whom they hold shares and request instructions for voting the proxies. We will reimburse the brokerage houses and other persons for their reasonable out-of-pocket expenses in connection with this distribution.

How and when may I submit a proposal for the 2016 annual meeting of stockholders?

If you are interested in submitting a proposal for inclusion in the proxy statement and proxy card for our 2016 annual meeting of stockholders, or the 2016 annual meeting, you need to follow the procedures outlined in Rule 14a-8 of the Exchange Act. We must receive your proposal intended for inclusion in the proxy statement at our principal executive offices, 167 Sidney Street, Cambridge, Massachusetts 02139, Attention: Secretary, no later than January 7, 2016. SEC rules set standards for the types of stockholder proposals and the information that must be provided by the stockholder making the request.

If you wish to present a proposal at the 2016 annual meeting, but do not wish to have the proposal considered for inclusion in the proxy statement and proxy card or have not complied with the requirements for inclusion of such proposal in our proxy statement under SEC rules, you must also give written notice to us at the address noted above. Our bylaws specify the information that must be included in any such notice, including a brief description of the business to be brought before the annual meeting, the name of the stockholder proposing such business and stock ownership information for such stockholder. In accordance with our bylaws, we must receive this notice at least 60 days, but not more than 90 days, prior to the date of the 2016 annual meeting and the notice must include specified information regarding the proposal and the stockholder making the proposal.

Notwithstanding the foregoing, if we provide less than 70 days notice or prior public disclosure of the date of the annual meeting to the stockholders, notice by the stockholders must be received by our Secretary no later than the close of business on the tenth day following the date on which the notice of the annual meeting was mailed or such public disclosure was made, whichever occurs first. If a stockholder who wished to present a proposal fails to notify us by this date, the proxies that management solicits for that meeting will have discretionary authority to vote on the stockholder s proposal if it is otherwise properly brought before that meeting. If a stockholder makes timely notification, the proxies may still exercise discretionary authority to vote on stockholder proposals under circumstances consistent with the SEC s rules.

Are annual meeting materials householded?

Some banks and brokerage firms may be participating in the practice of householding proxy statements and annual reports. This means that the banks and brokerage firms send only one copy of this proxy statement and the accompanying 2014 annual report to multiple stockholders in the same household. Upon request, we will promptly deliver separate copies of this proxy statement and our annual report to stockholders. To make such a request, please call Investor Relations at 1 (877) 888-6550, write to Investor Relations, 167 Sidney Street, Cambridge, Massachusetts 02139 or email Investor Relations at ir@iderapharma.com. To receive separate copies of our annual report to stockholders and proxy statement in the future, or to receive only one copy for the household, please contact us or your bank or brokerage firm.

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PROPOSAL ONE

ELECTION OF DIRECTORS

General Information

Our board of directors is divided into three classes and currently consists of three Class I directors: Vincent J. Milano, Kelvin M. Neu, M.D. and William S. Reardon, C.P.A.; four Class II directors: Julian C. Baker, James A. Geraghty, Robert W. Karr, M.D. and Malcolm MacCoss, Ph.D.; and four Class III directors: Sudhir Agrawal, D. Phil., Youssef El Zein, Mark Goldberg, M.D. and Eve E. Slater, M.D. Each member of a class is elected for a three-year term, with the terms staggered so that approximately one-third of our directors stand for election at each annual meeting of stockholders. The Class I, Class II and Class III directors were elected to serve until the annual meeting of stockholders to be held in 2017, 2015 and 2016, respectively, and until their respective successors are elected and qualified.

Our board of directors, on the recommendation of our nominating and corporate governance committee, has nominated Mr. Geraghty and Mr. Baker for election as Class II directors at the 2015 annual meeting. At the 2015 annual meeting, stockholders will be asked to consider the election of Mr. Baker and Mr. Geraghty, each of whom has been nominated for election as a director at a meeting of our stockholders for the first time. In July 2013, Mr. Geraghty was elected to our board of directors as a Class II director with a term expiring at our 2015 annual meeting. In March 2014, Mr. Baker was elected to our board of directors as a Class II director with a term expiring at our 2015 annual meeting. Messrs. Geraghty and Baker were recommended for initial election to our board of directors by our nominating and corporate governance committee. Dr. MacCoss and Dr. Karr have not been nominated and will not be standing for re-election to our board of directors at the 2015 annual meeting.

The persons named in the enclosed proxy card will vote to elect Mr. Geraghty and Mr. Baker to our board of directors unless you indicate that you withhold authority to vote for the election of any or all nominees. You may not vote for more than two directors. Each Class II director will be elected to hold office until our 2018 annual meeting of stockholders and until his successor is elected and qualified or until his earlier resignation, death or removal. Each of the nominees is presently a director and each has indicated a willingness to serve as a director, if elected. If a nominee becomes unable or unwilling to serve, however, the persons acting under the proxy may vote for substitute nominees selected by the board of directors.

Information about our Directors

Set forth below are the names of each of the nominees for election to our board of directors, the names of each of our other continuing directors, the years in which each first became a director, their ages as of April 15, 2015, their positions and offices with our company, their principal occupations and business experience during at least the past five years and the names of other public companies for which they currently serve, or have served within the past five years, as a director. We have also included information about each director s specific experience, qualifications, attributes or skills that led our board of directors to conclude that such individual should serve as one of our directors. We also believe that all of our directors, including our nominees, have a reputation for integrity, honesty and adherence to high ethical standards. They each have demonstrated business acumen and an ability to exercise sound judgment, as well as a commitment of service to Idera and our board of directors.

Recommendation of the Board of Directors

Our board of directors unanimously recommends that the stockholders vote FOR the election of Mr. Geraghty and Mr. Baker as Class II directors.

Class II Nominees Terms to Expire in 2018

Julian C. Baker Director since 2014

Mr. Baker, age 48, is Co-Managing Member of Baker Bros. Advisors LP, which he founded in 2000 with his brother, Dr. Felix J. Baker. The firm primarily manages long-term investment funds focused on publicly traded life sciences companies. Mr. Baker s career as a fund manager began in 1994 when he co-founded a biotechnology investing partnership with his brother and the Tisch Family. Previously, Mr. Baker was employed from 1988 to 1993 by the private equity investment arm of Credit Suisse First Boston Corporation. He also serves on the boards of directors of Incyte Corporation and Genomic Health, Inc. and previously served on the board of directors of Trimeris, Inc. Mr. Baker holds an A.B. from Harvard University. We believe that Mr. Baker s qualifications to sit on our board of directors include his financial expertise, affiliation with one of our significant stockholders, knowledge of our industry and significant public company board experience.

James A. Geraghty Director since 2013

Mr. Geraghty, age 60, has served as chairman of our board of directors since July 2013. He has been an Entrepreneur in Residence at Third Rock Ventures since May 2013. Mr. Geraghty served as a Senior Vice President of Sanofi from April 2011 to December 2012. Prior to that, he served in various senior management roles at Genzyme Corporation, a biotechnology company, from 1992 to April 2011, including as Senior Vice President, International Development from January 2007 to April 2011. He previously served as a director of bluebird bio Inc. and GTC Biotherapeutics, Inc. We believe that Mr. Geraghty s qualifications to sit on our board of directors include his public company board and management experience and his broad and deep knowledge of the industry in which we operate.

Continuing Members of the Board of Directors

Class I Directors Terms to Expire in 2017

Vincent J. Milano Director since 2014

Vincent Milano, age 51, has been our President and Chief Executive Officer, and a member of our board of directors, since December 2014. Prior to joining us, Mr. Milano served as Chairman, President and Chief Executive Officer of ViroPharma Inc., which was acquired by Shire Plc in January 2014, from March 2008 to January 2014, as its Vice President, Chief Financial Officer and Chief Operating Officer from January 2006 to March 2008 and as its Vice President, Chief Financial Officer and Treasurer from April 1996 to December 2005. Mr. Milano also served on the board of directors of ViroPharma from March 2008 to January 2014. Prior to joining ViroPharma, Mr. Milano served in increasingly senior roles, most recently senior manager, at KPMG LLP, an independent registered public accounting firm, from July 1985 to March 1996. Mr. Milano currently serves on the board of directors of Spark Therapeutics, Inc. and Vanda Pharmaceuticals Inc., each a publicly traded company, and VenatoRx Pharmaceuticals, Inc. Mr. Milano holds a Bachelor of Science degree in Accounting from Rider College. We believe Mr. Milano s qualifications to sit on our board of directors include his knowledge of our company as our President and Chief Executive Officer, knowledge of our industry, including over 18 years of experience serving in a variety of roles of increasing responsibility in the finance department, corporate administration and operations of a multinational biopharmaceutical company, and understanding of pharmaceutical research and development, sales and marketing, strategy, and operations in both the United States and overseas. He also has corporate governance experience through service on other public company boards.

Kelvin M. Neu, M.D. Director since 2014

Dr. Neu, age 41, is a Managing Director of Baker Bros. Advisors LP and has been with the firm since 2004. The firm primarily manages long-term investment funds focused on publicly traded life sciences companies. Dr. Neu currently serves on the board of directors of XOMA Corporation, a publicly traded company. Dr. Neu also served as a director of AnorMED Inc. and diaDexus, Inc. Dr. Neu holds an A.B. in Molecular Biology from Princeton University and an M.D. from Harvard Medical School and the Harvard-MIT Division of Health Sciences and Technology. He also trained for three years in the Immunology Ph.D. program at Stanford University. We believe that Dr. Neu squalifications to sit on our board of directors include his scientific background, affiliation with one of our significant stockholders and knowledge of our industry.

William S. Reardon, C.P.A. Director since 2002

Mr. Reardon, age 68, has been a director since 2002 and served as lead independent director of our board of directors from September 2010 to July 2013. He served as an audit partner at PricewaterhouseCoopers LLP, where he led the Life Science Industry Practice for New England and the Eastern United States from 1986 until his retirement from the firm in July 2002. Mr. Reardon currently serves as a director of Synta Pharmaceuticals, Inc., a publicly traded company. Mr. Reardon has also served as a trustee of closed-end mutual funds H&Q Healthcare Investors and H&Q Life Sciences Investors since April 2010. We believe that Mr. Reardon s qualifications to sit on our board of directors include his accounting and financial experience, including as a partner at a leading accounting firm leading its life science practice, his role in keeping the board of directors and senior management team abreast of current accounting regulations and his experience as a member of several boards of directors of biotechnology companies. Additionally, we value Mr. Reardon s role in leading the board on matters of corporate governance, before, during and after his service as lead independent director.

Class III Directors Terms to Expire in 2016

Sudhir Agrawal, D. Phil. Director since 1993

Dr. Agrawal, age 61, has been our President of Research since December 2014. Prior to this, he served as our President from February 2000 to October 2005 and again from September 2008 to November 2014 and our Chief Executive Officer from August 2004 to November 2014. He served as the chairman of our board of directors from September 2010 until July 2013. He also served as our Chief Scientific Officer from January 1993 until September 2010 and as Acting Chief Executive Officer from February 2000 until September 2001. Dr. Agrawal joined us in 1990 and served in various capacities before his appointment as Chief Scientific Officer, including Scientific Founder, Vice President of Discovery and Senior Vice President of Discovery. Prior to joining us, Dr. Agrawal served as a Foundation Scholar at the Worcester Foundation for Experimental Biology in Massachusetts, and conducted post-doctoral research at the Medical Research Council s Laboratory of Molecular Biology in Cambridge, England and obtained his D. Phil from Allahabad University in India. We believe that Dr. Agrawal s qualifications to sit on our board of directors include his unique insights into our challenges, opportunities and operations that he has as a result of the various roles he has played with us since our founding, including Scientific Founder, Chief Scientific Officer, Chief Executive Officer, Chairman and President of Research.

Youssef El Zein Director since 1992

Mr. El Zein, age 66, has been the Managing Partner of Pillar Invest Corporation, a Cayman Island company that he founded, and the General Partner of a family of funds, including Pillar Pharmaceuticals I, L.P. and Pillar Pharmaceuticals II, L.P., since 2011. Mr. El Zein has been the chairman and Chief Executive Officer of Pillar Invest (offshore) SAL since 2009. Mr. El Zein has been managing partner of Pillar Investment Limited, a private investment firm, since 1991. Mr. El Zein holds a Bachelor of Arts in Economics from the American University of

Beirut in 1970 and a post-graduate degree in Economics from St. Catherine s College, Oxford University in 1973. We believe that Mr. El Zein s qualifications to sit on our board of directors include his knowledge of our industry, his financial experience and significant role in various financings we have conducted recently and during his 22 years of service on our board of directors.

Mark Goldberg, M.D. Director since 2014

Dr. Goldberg, age 60, has served as consultant and medical and regulatory strategist for Synageva BioPharma Corp., a biopharmaceutical company, since October 2014. Prior to that, he served as the Executive Vice President for Medical and Regulatory Strategy of Synageva from January 2014 to October 2014 and as the Senior Vice President of Medical and Regulatory Affairs of Synageva from September 2011 to January 2014. Dr. Goldberg served in a variety of senior management positions at Genzyme Corporation from 1996 to July 2011, including most recently as Senior Vice President and Therapeutic Group Head for Oncology, Genetic and Neurodegenerative Diseases Clinical Development from 2009 to July 2011. Prior to working at Genzyme Corporation, he was a full time staff physician at Brigham and Women s Hospital and Dana Farber Cancer Institute, where he still holds appointments. He has also been an Associate Professor of Medicine at Harvard Medical School since 1996. Dr. Goldberg is a board-certified medical oncologist and hematologist and has more than 50 published papers. Dr. Goldberg currently serves on the board of directors of ImmunoGen, Inc. and GlycoMimetics, Inc., both publicly traded companies. Dr. Goldberg also served on the board of directors of Synageva from October 2008 to December 2011. Dr. Goldberg holds an A.B. from Harvard College and an M.D. from Harvard Medical School. We believe that Dr. Goldberg squalifications to sit on our board of directors include his extensive scientific and medical background, public company board experience and extensive experience in the management and operations of pharmaceutical companies.

Eve E. Slater, M.D. Director since 2010

Dr. Slater, age 69, is currently Professor of Clinical Medicine at Columbia University College of Physicians and Surgeons, where she has taught in various positions since 1983. Dr. Slater was Senior Vice President, Worldwide Policy at Pfizer, Inc. from May 2007 until June 2009. Dr. Slater was the Assistant Secretary for Health, United States Department of Health and Human Services from 2002 until 2003, and was the Acting Assistant Secretary for Health from 2001 until her confirmation by the United States Senate in 2002. Dr. Slater held senior management positions at Merck Research Laboratories from 1983 to 2001, including Senior Vice President of External Policy, Vice President of Corporate Public Affairs, Senior Vice President of Clinical and Regulatory Development, Executive Director of Biochemistry and Molecular Biology, and Senior Director of Biochemical Endocrinology. Dr. Slater was trained in Internal Medicine and Cardiology at Massachusetts General Hospital, is board certified in Internal Medicine and Cardiology and is a Fellow of the American College of Cardiology. We believe that Dr. Slater squalifications to sit on our board of directors include her extensive scientific and medical background, significant public company board experience, and years of service with pharmaceutical companies and governmental institutions.

Director Compensation

We use a combination of cash and equity-based compensation to attract and retain candidates to serve on our board of directors. We do not compensate directors who are also our employees for their service on our board of directors. As a result, Mr. Milano and Dr. Agrawal do not receive any compensation for their service on our board of directors.

During 2014, our compensation committee engaged Radford Survey + Consulting, or Radford, to provide advice and recommendations regarding our director compensation program. As part of its engagement, Radford provided data on director compensation from a peer group of publicly traded companies which the committee believed had business life cycles, market capitalizations, products, research and development investment levels and number/capabilities of employees that were then comparable to ours. For additional information related to this peer group of companies, please see Executive Compensation Compensation Discussion and Analysis.

After considering the data provided by Radford, the compensation committee determined that, other than with respect to the cash compensation paid to the chairman of our board of directors, the cash components of our director compensation program were at the 50th percentile. With respect to the cash compensation paid to the chairman of our board of directors, the compensation committee recommended to our board of directors and our board of directors approved an increase in the annual cash retainer from the \$35,000 paid to all non-employee directors to \$70,000. With respect to the equity components of our director compensation program, the compensation committee recommended to our board of directors and our board of directors approved increases in the number of shares of our common stock granted upon the initial election of non-employee directors from 30,000 shares to 70,000 shares, the number of shares of our common stock granted on an annual basis to our non-employee directors from 20,000 shares to 35,000 shares and the number of shares granted on an annual basis to the chairman of our board of directors to 52,500 shares. The board of directors approved these increases to the cash and equity components of our director compensation program in March 2014 and they became effective as of April 1, 2014.

Under our director compensation program, as modified in March 2014, we pay our non-employee directors retainers in cash. Each director receives a cash retainer for service on the board of directors and for service on each committee on which the director is a member. The chairmen of each committee receive higher retainers for such service. These fees are paid quarterly in arrears. The fees paid to non-employee directors for service on the board of directors and for service on each committee of the board of directors on which the director was a member are as follows:

	Member Annual Fee	Chairman Annual Fee
Board of Directors	\$ 35,000	\$ 70,000
Audit Committee	\$ 7,000	\$ 15,000
Compensation Committee	\$ 7,000	\$ 15,000
Nomination and Corporate Governance Committee	\$ 3,500	\$ 7,500

Our director compensation program includes a stock-for-fees policy, under which directors have the right to elect to receive common stock in lieu of cash fees. These shares of common stock are issued under our 2013 Stock Incentive Plan. The number of shares issued to participating directors is determined on a quarterly basis by dividing the cash fees to be paid through the issuance of common stock by the fair market value of our common stock, which is the closing price of our common stock, on the first business day of the quarter following the quarter in which the fees are earned. In 2014, several of our directors elected to receive shares of our common stock in lieu of cash fees as set forth in the table below. No other director elected to receive shares of our common stock in lieu of cash fees during 2014.

	Shares of Common Stock	In Lieu of Cash Fees
Julian C. Baker	14,286	\$ 26,250
James A. Geraghty	2,649	\$ 12,027
Malcolm MacCoss	662	\$ 1,873
Kelvin M. Neu	15,906	\$ 29,750
William S. Reardon	2,363	\$ 6,687
Abdul-Wahab Umari(1)	5,897	\$ 24,231

(1) Mr. Umari s service on our board of directors ended immediately prior to our 2014 annual meeting of stockholders in June 2014. Under our director compensation program, we also reimburse our directors for travel and other related expenses for attendance at meetings.

Under our director compensation program, upon their initial election to the board of directors, new non-employee directors receive an initial option grant to purchase 70,000 shares of our common stock, and all non-

employee directors, other than the chairman, receive an annual option grant to purchase 35,000 shares of our common stock. The chairman receives an annual option grant for 52,500 shares of our common stock. The annual grants are made on the date of our annual meeting of stockholders. The options granted to our non-employee directors vest quarterly over three years from the date of grant, subject to continued service as a director, and are granted under our 2013 Stock Incentive Plan. These options are granted with exercise prices equal to the fair market value of our common stock, which is the closing price of our common stock, on the date of grant and will become immediately exercisable in full if there is a change in control of our company.

Under our retirement policy for non-employee members of the board, if a non-employee director is deemed to retire, then:

all outstanding options held by such director will automatically vest in full; and

the period during which such director may exercise the options will be extended to the expiration of the option under the plan. Under the policy, a non-employee director will be deemed to have retired if:

the director resigns from the board or determines not to stand for re-election or is not nominated for re-election at a meeting of our stockholders and has served as a director for more than 10 years; or

the director does not stand for re-election or is not nominated for re-election due to the fact that he or she is or will be older than 75 at the end of such director s term.

The following table sets forth a summary of the compensation we paid to our non-employee directors who served on our board in 2014.

DIRECTOR COMPENSATION FOR 2014

	Fees Earned or Paid in Cash	Option Awards	
Name	(\$)	(\$)(1)	Total (\$)
Julian C. Baker(2)	28,389(3)	357,447	385,836
Youssef El Zein	45,500	77,172	122,672
James A. Geraghty	70,250(4)	115,757	186,007
Mark Goldberg(2)	34,417	346,956	381,373
C. Keith Hartley(5)	21,894		21,894
Robert W. Karr	42,000	77,172	119,172
Malcolm MacCoss	50,000(6)	77,172	127,172
Kelvin M. Neu(2)	31,889(7)	357,447	389,336
William S. Reardon	53,500(8)	77,172	130,672
Eve E. Slater	42,000	77,172	119,172
Abdul-Wahab Umari(9)	15,481(10)		15,481

- (1) These amounts represent the aggregate grant date fair value of option awards made to each listed director in 2014 as computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, Stock Compensation, or ASC 718. These amounts do not represent the actual amounts paid to or realized by the directors during 2014. See Note 2(j) to the financial statements in our annual report on Form 10-K for the year ended December 31, 2014 regarding assumptions we made in determining the fair value of option awards. As of December 31, 2014, our non-employee directors held options to purchase shares of our common stock as follows: Mr. Baker: 105,000; Mr. El Zein: 196,469; Mr. Geraghty: 542,500; Dr. Goldberg: 105,000; Dr. Karr: 280,375; Dr. MacCoss: 161,000; Dr. Neu: 105,000; Mr. Reardon: 196,469; and Dr. Slater: 151,000.
- (2) Dr. Goldberg joined our board of directors in January 2014. Mr. Baker and Dr. Neu joined our board of directors in March 2014.

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- (3) Includes cash meeting fees of \$26,250 in lieu of which Mr. Baker elected to receive 14,286 shares of our common stock.
- (4) Includes cash meeting fees of \$12,027 in lieu of which Mr. Geraghty elected to receive 2,649 shares of our common stock.
- (5) Mr. Hartley s service on our board of directors ended immediately prior to our 2014 annual meeting of stockholders in June 2014.
- (6) Includes cash meeting fees of \$1,873 in lieu of which Dr. MacCoss elected to receive 662 shares of our common stock.
- (7) Includes cash meeting fees of \$29,750 in lieu of which Dr. Neu elected to receive 15,906 shares of our common stock.
- (8) Includes cash meeting fees of \$6,687 in lieu of which Mr. Reardon elected to receive 2,363 shares of our common stock.
- (9) Mr. Umari s service on our board of directors ended immediately prior to our 2014 annual meeting of stockholders in June 2014.
- (10) Includes cash meeting fees of \$24,231 in lieu of which Mr. Umari elected to receive 5,897 shares of our common stock.

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CORPORATE GOVERNANCE INFORMATION

Board of Directors

Our board of directors is responsible for establishing our broad corporate policies and overseeing the management of our company. Our chief executive officer and our other executive officers are responsible for our day-to-day operations. Our board evaluates our corporate performance and approves, among other things, our corporate strategies and objectives, operating plans, major commitments of corporate resources and significant policies. Our board also evaluates and appoints our executive officers.

Our board of directors met 11 times during 2014, including regular, special and telephonic meetings. Each director who served as a director during 2014 attended at least 75% of the total number of board meetings held during 2014 while he or she was a director and of the total number of meetings held by all board committees on which he or she served during 2014.

Board Leadership Structure

Our board does not have a policy on whether the offices of chairman of the board and chief executive officer should be separate and, if they are to be separate, whether the chairman of the board should be selected from among the independent directors or should be an employee of our company. Our board believes that it should have the flexibility to make these determinations at any given point in time in the way that it believes best to provide appropriate leadership for our company at that time. Currently, Mr. Geraghty serves as chairman of our board and Mr. Milano serves as chief executive officer. Our board believes that this separation allows our chief executive officer to focus on our day-to-day business, while allowing the chairman of the board to lead the board in its fundamental role of providing advice to and independent oversight of management.

Our board recognizes that no single leadership model is right for all companies and at all times and that depending on the circumstances, other leadership models, such as a combined chairman and chief executive officer, might be appropriate. Accordingly, the board periodically reviews its leadership structure. Pursuant to our corporate governance guidelines, if the chairman is not an independent director, the board may elect a lead director from its independent directors. In such case, the chairman and chief executive officer would consult periodically with the lead director on board matters and on issues facing our company. In addition, the lead director would serve as the principal liaison between the chairman of the board and the independent directors and would preside at any executive session of independent directors.

Board s Role in Risk Oversight

Our board of directors, as a whole, has responsibility for risk oversight, with reviews of certain areas being conducted by relevant committees that report directly to the board of directors. The oversight responsibility of the board of directors and its committees is enabled by management reporting processes that are designed to provide visibility to the board of directors about the identification, assessment and management of critical risks and management s risk mitigation strategies. These areas of focus include competitive, economic, operational, financial (accounting, credit, liquidity and tax), legal, regulatory, compliance, health, safety, environmental, political and reputational risks. Our board of directors regularly reviews information regarding our strategy, operations, credit and liquidity, as well as the risks associated with each. Our compensation committee is responsible for overseeing risks relating to our executive compensations and arrangements. Our audit committee is responsible for overseeing financial risks and risks associated with related party transactions. Our nominating and corporate governance committee is responsible for overseeing risks associated with the independence of the board of directors. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, our entire board of directors is regularly informed through committee reports about such risks.

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Board Committees

Our board of directors has established three standing committees: audit, compensation and nominating and corporate governance. Each of our audit, compensation and nominating and corporate governance committees operates under a charter that has been approved by our board of directors. Our board of directors has also adopted corporate governance guidelines to assist our board in the exercise of its duties and responsibilities. Current copies of the charters for the audit, compensation and nominating and corporate governance committees and the corporate governance guidelines are posted on our website, www.iderapharma.com, and can be accessed by clicking Investors and Corporate Governance.

Audit Committee

Our audit committee s responsibilities include:

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

overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of certain reports from such accounting firm;

reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures;

monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;

discussing our risk management policies;

establishing procedures for the receipt and retention of accounting related complaints and concerns;

reviewing and approving related party transactions;

meeting independently with our independent registered public accounting firm and management; and

preparing the audit committee report required by SEC rules, which is included in the section of this proxy statement entitled Accounting Matters Report of the Audit Committee.

The current members of our audit committee are Mr. Reardon (Chairman), Mr. Geraghty and Dr. Karr. Mr. Reardon and Dr. Karr were members of our audit committee throughout 2014. Mr. Hartley served as a member of our audit committee until June 2014, and Mr. Geraghty has served as a member of our audit committee since June 2014. Our board of directors has determined that Mr. Reardon is an audit committee financial expert within the meaning of SEC rules and regulations. During 2014, our audit committee held six meetings in person or by teleconference.

Compensation Committee

Our compensation committee s responsibilities include:

annually reviewing and approving corporate goals and objectives relevant to compensation for our executive officers;

determining the compensation of our senior executives;

overseeing the evaluation of our senior executives;

overseeing and administering our cash and equity incentive plans;

reviewing and making recommendations to the board of directors with respect to director compensation;

reviewing and discussing annually with management the compensation discussion and analysis required by the SEC rules and included in this proxy statement; and

preparing the compensation committee report required by SEC rules, which is included in the section of this proxy statement entitled Executive Compensation Committee Report.

The current members of our compensation committee are Dr. MacCoss (Chairman), Mr. El Zein, Dr. Neu and Dr. Slater. Dr. MacCoss, Mr. El Zein and Dr. Slater were members of our compensation committee throughout 2014. Dr. Neu joined our compensation committee in June 2014. During 2014, the compensation committee held eight meetings in person or by teleconference.

The processes and procedures followed by our compensation committee in considering and determining executive compensation are described below under the heading Executive Compensation.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee s responsibilities include:

identifying individuals qualified to become members of our board of directors;

recommending to our board of directors the persons to be nominated for election as directors or to fill vacancies on our board of directors, and the persons to be appointed to each of the committees of the board of directors;

reviewing and making recommendations to the board of directors with respect to management succession planning;

developing and recommending to the board of directors corporate governance principles; and

overseeing periodic evaluations of the board of directors.

The current members of our nominating and corporate governance committee are Mr. Geraghty (Chairman), Mr. El Zein and Mr. Reardon. During 2014, the nominating and corporate governance committee held four meetings in person or by teleconference.

The processes and procedures followed by our nominating and corporate governance committee in identifying and evaluating director candidates are described below under the heading Director Nomination Process.

Director Independence

Under applicable rules of the Nasdaq Stock Market, a director will only qualify as an independent director if, in the opinion of our board of directors, that person does not have a relationship which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Our board of directors has determined that Mr. Baker, Mr. El Zein, Mr. Geraghty, Dr. Goldberg, Dr. Karr, Dr. MacCoss, Dr. Neu, Mr. Reardon and Dr. Slater and all of the members of each of the audit, compensation and nominating and corporate governance committees are independent as defined under applicable rules of the Nasdaq Stock Market including, in the case of all members of the audit committee, the independence requirements contemplated by Rule 10A-3 under the Exchange Act and, in the case of all members of the compensation committee, the independence requirements contemplated by Rule 10C-1 under the Exchange Act.

Our board of directors had previously made similar determinations of independence with respect to Mr. Hartley and Mr. Umari, each of whom served as a director until June 2014.

Director Nomination Process

The process followed by our nominating and corporate governance committee to identify and evaluate director candidates includes requests to members of our board of directors and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential

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candidates and interviews of selected candidates by members of our nominating and corporate governance committee and our board of directors. The nominating and corporate governance committee has from time to time used a third-party recruiting firm to identify and interview potential candidates.

In considering whether to recommend any particular candidate for inclusion in the board s slate of recommended director nominees, the nominating and corporate governance committee will apply the criteria set forth in our corporate governance guidelines. These criteria include the candidate s:

business acumen;
knowledge of our business and industry;
age;
experience;
diligence;
conflicts of interest;
ability to act in the interests of all stockholders; and

in the case of the renomination of existing directors, performance on our board of directors and on any committee of which the director was a member.

Our corporate governance guidelines also provide that candidates should not be discriminated against on the basis of race, religion, national origin, sex, sexual orientation, disability or any other basis proscribed by law and that our nominating and corporate governance committee should consider the value of diversity of the board of directors when evaluating particular candidates. The committee has not adopted any formal or informal diversity policy and treats diversity as one of the criteria to be considered by the committee. The committee does not assign specific weights to particular criteria that the committee reviews and no particular criterion is a prerequisite for the consideration of any prospective nominee. We believe that the backgrounds and qualifications of our directors, considered as a group, should provide a composite and diverse mix of experience, knowledge and abilities that will allow the board of directors to fulfill its responsibilities.

Stockholder Nominees

Stockholders may recommend individuals to the nominating and corporate governance committee for consideration as potential director candidates by submitting the individuals names, together with appropriate biographical information and background materials and a statement as to whether the stockholder or group of stockholders making the recommendation has beneficially owned more than 5% of our common stock for at least one year as of the date such recommendation is made, to Nominating and Corporate Governance Committee, c/o Secretary, Idera Pharmaceuticals, Inc., 167 Sidney Street, Cambridge, Massachusetts 02139. Assuming that appropriate biographical and background material has been provided on a timely basis, the nominating and corporate governance committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others. If the board of directors determines to nominate a stockholder-recommended candidate and recommends his or her election, then his or her name will be included in our proxy card for the next annual meeting.

Stockholders also have the right under our bylaws to nominate director candidates directly, without any action or recommendation on the part of the nominating and corporate governance committee or the board of directors, by following the procedures set forth in our bylaws, including advance notice requirements. Candidates nominated by stockholders in accordance with the procedures set forth in our bylaws will not be included in our proxy card for the next annual meeting. See Information about the 2015 annual meeting. How and when may I submit a proposal for the 2016 annual meeting of stockholders? for more information about these procedures.

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Communicating with our Board of Directors

Our board of directors will give appropriate attention to written communications that are submitted by stockholders and will respond if and as appropriate. The chairman of the board of directors (if an independent director) or the lead independent director, if any, is primarily responsible for monitoring communications from stockholders and for providing copies or summaries to the other directors, as he or she considers appropriate.

Communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the chairman of the board of directors or lead independent director, as the case may be, considers to be important for the directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters that involve repetitive or duplicative communications.

Stockholders who wish to send communications on any topic to the board of directors should address such communications to Board of Directors, c/o Secretary, Idera Pharmaceuticals, Inc., 167 Sidney Street, Cambridge, Massachusetts 02139.

Each communication from a stockholder should include the following information in order to permit stockholder status to be confirmed and to provide an address to forward a response if deemed appropriate:

the name, mailing address and telephone number of the stockholder sending the communication;

the number of shares held by the stockholder; and

if the stockholder is not a record owner of our securities, the name of the record owner of our securities beneficially owned by the stockholder

Directors are responsible for attending our annual meetings of stockholders. Two of our directors attended the 2014 annual meeting of stockholders in person.

Compensation Committee Interlocks and Insider Participation

Our compensation committee currently consists of Dr. MacCoss, Mr. El Zein, Dr. Neu and Dr. Slater. No member of our compensation committee was at any time during 2014, or was formerly, an officer or employee of ours. No member of our compensation committee engaged in any related person transaction involving our company during 2014 other than Dr. Neu. See Transactions with Related Persons for information about the terms of the transactions we engaged in with affiliates of Dr. Neu. None of our executive officers has served as a director or member of the compensation committee (or other committee serving the same function as the compensation committee) of any other entity, while an executive officer of that other entity served as a director or member of our compensation committee.

Executive Officers of Idera

The following table sets forth the names, ages and positions of our executive officers as of April 15, 2015:

Position

11gc	1 ostron
51	President and Chief Executive Officer
61	President of Research
54	Senior Vice President of Operations, Chief Financial Officer, Treasurer and Secretary
52	Senior Vice President, Business Development and Strategy
	51 61 54 52

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*

Name

Mr. Milano is a continuing member of our board of directors. See Proposal One Election of Directors for more information about Mr. Milano.

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** Dr. Agrawal is a continuing member of our board of directors. See Proposal One Election of Directors for more information about Dr. Agrawal.

Louis J. Arcudi, III, M.B.A., has been our Senior Vice President of Operations since April 2011 and our Chief Financial Officer, Treasurer and Secretary since he joined us in December 2007. Prior to joining us, Mr. Arcudi served as Vice President of Finance and Administration and Treasurer for Peptimmune, Inc., a biotechnology company, from 2003 to 2007. From 2000 to 2003, Mr. Arcudi was Senior Director of Finance and Administration at Genzyme Molecular Oncology Corporation, a division of Genzyme Corporation. He was Director of Finance Business Planning and Operations International at Genzyme from 1998 to 2000. Prior to joining Genzyme, he held finance positions with increasing levels of responsibility at Cognex Corporation, a supplier of machine vision systems, Millipore Corporation, a provider of technologies, tools and services for bioscience, research and biopharmaceutical manufacturing, and General Motors Corporation, an automobile manufacturer. Mr. Arcudi holds an M.B.A. from Bryant College and a B.S. in accounting and information systems from the University of Southern New Hampshire.

R. Clayton Fletcher, has been our Senior Vice President, Business Development and Strategic Planning since January 2015. Prior to joining us, Mr. Fletcher served in increasingly senior positions at ViroPharma Inc., which was acquired by Shire Plc in January 2014, from April 2001 until January 2014, including as Vice President, Business Development and Project Management from 2005 until January 2014. Mr. Fletcher served as Senior Project Manager at SmithKline Beecham plc, a pharmaceutical company, which was purchased by Glaxo Wellcome plc in December 2000, from 1997 until 2001. Prior to working at SmithKline Beecham, he served as Project Scientist, at Becton, Dickinson and Company, a medical devices company and as Principal Scientist at Intracel Corporation, a biopharmaceutical company. Prior to working at Intracel, he served as Senior Associate Scientist at Centocor Biotech, Inc., a biotechnology company from 1991 until 1993. Mr. Fletcher holds a B.S. and a M.S. in biology from Wake Forest University.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL

OWNERS AND MANAGEMENT

On April 15, 2015, we had 117,875,318 shares of common stock issued and outstanding. The following table sets forth information we know about the beneficial ownership of our common stock, as of April 15, 2015, by:

each person known by us to own beneficially more than 5% of the outstanding shares of our common stock;
each of our directors;
each of our named executive officers; and

all current directors and executive officers as a group.

We have determined beneficial ownership in accordance with the rules of the SEC, and the information in the table below is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership of a person includes any shares as to which such person has the sole or shared voting power or investment power. In addition, under such rules, beneficial ownership of a person includes any shares that such person has the right to acquire within 60 days after April 15, 2015 through the conversion of any convertible security or the exercise of any stock option, warrant or other right. These shares, however, are not considered outstanding when computing the percentage ownership of each other person.

Unless otherwise indicated in the footnotes to the table below, each stockholder named in the table has sole investment and voting power (or shares such power with his or her spouse) with respect to the shares shown as

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beneficially owned by them. The inclusion of any shares deemed beneficially owned does not constitute an admission of beneficial ownership of such shares.

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Name and		
Address of	Amount and	% of
Beneficial	Nature of Beneficial Ownership of	Common Stock Beneficially
Owner(1)	Common Stock	Owned
5% Stockholders		
Pillar Investment Entities c/o Pillar Invest Offshore SAL Starco Ctr Bloc B, 3rd Flr Omar Daouk St.	24.502.202(2)	10.000(0)
Beirut, M8 2020-3313	24,783,392(2)	19.99%(2)
Affiliates of Baker Brothers Advisors, LLC 667 Madison Avenue, 21st Floor New York, NY 10065	7,008,404(3)	5.94%(3)
Named Executive Officers and Directors		
Vincent J. Milano	200,000	*
Sudhir Agrawal, D. Phil.	3,500,953(4)	2.89%
Louis J. Arcudi, III	817,072(5)	*
Louis Brenner, M.D.	231,249(6)	*
John Peter Wolf, III		*
Robert D. Arbeit, M.D.	466,240(7)	*
Julian C. Baker	7,008,404(8)	5.94%(3)
Youssef El Zein	24,783,392(9)	19.99%(2)
James A. Geraghty	718,985(10)	*
Mark Goldberg	37,501(11)	*
Robert W. Karr, M.D.	238,341(12)	*
Malcolm MacCoss, Ph.D.	116,420(13)	*
Kelvin M. Neu	37,502(14)	

167.574(15)

102,667(16)

29.5%

38,195,051(17)

William S. Reardon

All current directors and executive officers as a group (13 individuals)

Eve E. Slater

^{*} Less than 1%

⁽¹⁾ Except as otherwise noted, the address for each person listed above is c/o Idera Pharmaceuticals, Inc., 167 Sidney Street, Cambridge, Massachusetts 02139.

Consists of (i) 2,969,838 shares of common stock held by Pillar Pharmaceuticals I, L.P., or Pillar I, (ii) 6,782,085 shares of common stock held by Pillar Pharmaceuticals II, L.P., or Pillar II, (iii) 2,219,581 shares of common stock held by Pillar Pharmaceuticals III, L.P., or Pillar III, (iv) 559,847 shares of common stock held by Pillar Pharmaceuticals IV, L.P., or Pillar IV, (v) 5,657,953 shares of common stock held by Participations Besancon, or Besancon, and over which Pillar Invest Corporation has investment discretion, pursuant to an advisory agreement between Pillar Invest Corporation and Besancon, or the Advisory Agreement, (vi) 690,425 shares of common stock issuable upon exercise of warrants to purchase common stock held by Pillar I, (vii) 5,266,820 shares of common stock issuable upon exercise of warrants to purchase common stock held by Pillar II, (viii) 490,426 shares of common stock held directly by Mr. El Zein and (ix) 146,417 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015 held by Mr. El Zein. As a result of the application of the Exercise Cap, as described below in this footnote, the table above does not include the following as being beneficially owned by the Pillar Investment Entities: (a) 2,120,225 shares of common stock issuable upon exercise of warrants to purchase common stock held by Pillar I; (b) 4,118,020 shares of common stock issuable upon exercise of warrants to purchase common stock held by Besancon and over which Pillar Invest Corporation has investment discretion pursuant to the Advisory Agreement; and (c) 2,600,000 shares of common stock issuable upon exercise of a warrant to purchase common stock held by Pillar III. Mr. El Zein, a member of our board of directors, is a director and controlling stockholder of Pillar Invest Corporation, which is the general partner of Pillar I, Pillar II, Pillar III and Pillar IV, and is a limited partner of Pillar I, Pillar III, Pillar III and Pillar IV. Mr. El Zein expressly disclaims beneficial ownership over shares held directly by Pillar I, Pillar II, Pillar II, Pillar IV and indirectly by Pillar Invest Corporation, including the warrants to purchase

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common stock issued in connection therewith held by Besancon, or the Besancon Warrants. Pillar I, Pillar II, Pillar III and Pillar IV expressly disclaim beneficial ownership of the Besancon Warrants. Besancon is an investment fund having no affiliation with Mr. El Zein, Pillar II, Pillar III, Pillar IIV or Pillar Invest Corporation. The information in this footnote is based on a Form 4 filed with the SEC on December 16, 2014 and on information provided to the Company by Pillar Invest Corporation and Mr. El Zein. Pursuant to the terms of the warrants to purchase common stock issued to the Pillar Investment Entities, the warrants to purchase common stock issued to the Pillar Investment Entities cannot be exercised by the holders thereof with respect to any portion of the shares, to the extent that such exercise would result in the Pillar Investment Entities beneficially owning in the aggregate more than 19.99% of (x) the number of shares of common stock outstanding or (y) the voting power of our securities outstanding immediately after giving effect to the exercise of the warrants to purchase common stock. This limitation on exercise of the warrants to purchase common stock issued to the Pillar Investment Entities is referred to in this footnote as the Exercise Cap. In addition, pursuant to the terms of the purchase agreements under which such warrants were acquired, the purchasers have each agreed that for so long as such purchaser and its affiliates beneficially own more than 19.99% of our outstanding common stock, such purchaser, and its affiliates will vote any shares held by them in excess of the number of shares equal to 19.99% of the outstanding common stock with respect to any matter put to a vote of the holders of common stock in the same manner and percentage as the holders of the common stock vote on such matter.

Consists of (i) 606,472 shares of our common stock owned by 667, L.P., (ii) 6,304,832 shares of our common stock owned by Baker Brothers Life Sciences, L.P., (iii) 35,105 shares of our common stock owned by 14159, L.P., (iv) 24,493 shares of our common stock held directly by Mr. Baker and in which each of the 667, L.P., Baker Brothers Life Sciences, L.P. and 14159, L.P., which we refer to collectively as the Funds, has an indirect pecuniary interest and may be deemed to own a portion of these shares, and (v) 37,502 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015 held by Mr. Baker. As a result of the application of the Beneficial Ownership Cap, as described below in this footnote, the table above does not include the following as being beneficially owned by the Funds: (a) 4,640,773 shares of common stock issuable upon exercise of warrants to purchase common stock owned by 667, L.P., (b) 36,907,015 shares of common stock issuable upon exercise of warrants to purchase common stock owned by Baker Brothers Life Sciences, L.P. and (c) 919,591 shares of common stock issuable upon exercise of warrants to purchase common stock owned by 14159, L.P. The information in this footnote is based on a Form 4 filed with the SEC on April 2, 2015 and on information provided to the Company by the Funds and Mr. Baker. Mr. Baker, a member of our board of directors, is a managing member of Baker Bros. Advisors LP and is a principal of Baker Bros. Advisors (GP), LLC, the sole general partner of Baker Bros. Advisors LP. Baker Bros. Advisors LP serves as the investment advisor to the Funds. Accordingly, Mr. Baker may be deemed to have sole power to direct the voting and disposition of the shares of common stock held directly by the Funds and indirectly by Baker Bros. Advisors LP and Baker Bros. Advisors (GP), LLC. Mr. Baker expressly disclaims beneficial ownership over shares held directly by the Funds and indirectly by Baker Bros. Advisors LP and Baker Bros. Advisors (GP), LLC, except to the extent of his pecuniary interest therein, if any, by virtue of his pecuniary interest therein. Under the terms of the warrants issued to the Funds, the Funds are not permitted to exercise such warrants to purchase common stock to the extent that such exercise would result in the Funds (and their affiliates) beneficially owning more than 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon exercise of such warrants to purchase common stock. This limitation on exercise of the warrants to purchase common stock issued to the Funds is referred to in this footnote as the Beneficial Ownership Cap. The Funds have the right to increase this beneficial ownership limitation in their discretion on 61 days prior written notice to us, provided that in no event are the Funds permitted to exercise such warrants to purchase common stock to the extent that such exercise would result in the Funds (and their affiliates) beneficially owning in the aggregate more than 19.99% of the number of shares of our common stock outstanding or the combined voting power of our securities outstanding immediately after giving effect to the issuance of shares of common stock issuable upon exercise of such warrants to purchase common stock.

- (4) Includes 3,374,676 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (5) Includes 802,875 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (6) Includes 231,249 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (7) Includes 458,680 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (8) Consists of shares reported under footnote 3 to this table above. Mr. Baker is a managing member of Baker Bros. Advisors LP and is a principal of Baker Bros. Advisors (GP), LLC, the sole general partner of Baker Bros. Advisors LP. Baker Bros. Advisors LP serves as the investment advisor to the Funds. Accordingly, Mr. Baker may be deemed to have sole power to direct the voting and disposition of the shares of common stock held directly by the Funds and indirectly by Baker Bros. Advisors LP and Baker Bros. Advisors (GP), LLC. Mr. Baker expressly disclaims beneficial ownership over shares held directly by the Funds and indirectly by Baker Bros. Advisors LP and Baker Bros. Advisors (GP), LLC, except to the extent of his pecuniary interest therein, if any, by virtue of his pecuniary interest therein.
- (9) Consists of shares reported under footnote 2 to this table above. Mr. El Zein is a director and controlling stockholder of Pillar Invest Corporation, which is the general partner of Pillar I, Pillar II, Pillar III and Pillar IV, and is a limited partner of Pillar I, Pillar III and Pillar IV. Accordingly, Mr. El Zein may be deemed to have sole power to direct the voting and disposition of the shares of common stock held directly by Pillar I, Pillar II, Pillar III and Pillar IV and indirectly by Pillar Invest Corporation, including the Besancon Warrants. Mr. El Zein expressly disclaims beneficial ownership over shares held directly by Pillar I, Pillar III and Pillar IV, and indirectly by Pillar Invest Corporation, including the Besancon Warrants, except to the extent of his pecuniary interest therein, if any, by virtue of his ownership interest in Pillar Invest Corporation and his limited partnership interest in Pillar II, Pillar III and Pillar IV.
- (10) Includes 303,336 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (11) Consists of shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (12) Includes 549 shares of common stock held by the Robert W. Karr Revocable Trust and 5,750 shares held by the Jean G. Karr Revocable Trust for which Dr. Karr is trustee and beneficiary. Dr. Karr disclaims beneficial ownership of all shares held in the Robert W. Karr Revocable Trust. Also includes 232,042 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (13) Includes 112,667 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (14) Consists of shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (15) Includes 146,417 shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (16) Consists of shares of common stock subject to outstanding stock options that are exercisable within 60 days after April 15, 2015.
- (17) Includes 5,792,282 shares of common stock subject to outstanding stock options held by the directors and executive officers as a group that are exercisable within 60 days after April 15, 2015, shares reported in clauses (i) through (viii) of the first sentence of footnote 2 to this table above, shares reported in clauses (i) through (iv) of the first sentence of footnote 3 to this table above and shares reported in the first sentence of footnote 12 to this table above.

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EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Executive Summary

The compensation committee of our board of directors is responsible for establishing compensation policies with respect to our executive officers, including our chief executive officer and our other executive officers who are listed in the Summary Compensation table below and who we refer to as named executive officers. Our named executive officers include Vincent J. Milano, our President and Chief Executive Officer, Sudhir Agrawal, D. Phil., our President of Research and former President and Chief Executive Officer, and Louis J. Arcudi, III, our Chief Financial Officer. Our named executive officers also include Louis Brenner, M.D., who served as our Senior Vice President and Chief Medical Officer from January 2014 to April 2015, John Peter Wolf, III, who served as our Senior Vice President, General Counsel from December 2014 to March 2015, and Robert D. Arbeit, M.D., who served as our Vice President, Clinical Development from August 2009 to January 2015. Our compensation committee makes compensation decisions relating to our executive officers after consultation with our board of directors.

This section discusses the principles underlying our executive compensation policies and decisions and the most important factors relevant to an analysis of these policies and decisions. It provides qualitative information regarding the manner and context in which compensation is awarded to and earned by our named executive officers. As further discussed in this section, our compensation and benefit programs are designed to attract, retain and motivate individuals who will maximize our business results by working to meet or exceed established company or individual objectives. In addition, we use our programs to reward our executive officers for corporate and individual performance. We also may decline to increase salaries, make bonus awards or issue equity compensation in the event that corporate or individual performance falls below expectations.

Compensation Philosophy and Objectives

The compensation committee seeks to achieve the following broad goals in connection with our executive compensation programs and decisions regarding individual compensation:

attract, retain and motivate the best possible executive talent;

ensure executive compensation is aligned with our corporate strategies and business objectives, including our short-term operating goals and longer-term strategic objectives;

promote the achievement of key strategic and financial performance measures by linking short- and long-term cash and equity incentives to the achievement of measurable corporate and individual performance goals; and

align executives incentives with the creation of stockholder value.

To achieve these objectives, the compensation committee evaluates our executive compensation program with the goal of setting compensation at levels the compensation committee believes are competitive with those of other companies in our industry and our region that compete with us for executive talent. In addition, our executive compensation program ties a substantial portion of each executive officer—s overall compensation to key strategic, financial, research and operational goals such as clinical trial and regulatory progress, intellectual property portfolio development, establishment and maintenance of key strategic relationships and exploration of business development opportunities, as well as our financial and operational performance. We also provide a portion of our executive compensation in the form of stock options or other stock awards that vest over time from the time of the grant of the option awards and from the time of achievement of performance milestones, which we believe helps to retain our executives and align their interests with those of our stockholders by allowing them to participate in the longer term success of our company as reflected in stock price appreciation.

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During 2013 and 2014, our compensation committee engaged Radford to provide advice and recommendations regarding the amount and form of executive compensation, equity incentive programs and compensation generally. During 2014, our compensation committee also engaged Radford to provide advice and recommendations regarding our director compensation program, which is discussed above under Proposal One Election of Directors Director Compensation. Radford did not provide any services to our company during 2013 or 2014 other than pursuant to its engagement by the compensation committee. Our compensation committee considered the relationship that Radford has with us, the members of our compensation committee and our executive officers, as well as the policies that Radford has in place to maintain its independence and objectivity. Based on the compensation committee s evaluation, as well as the consideration by our executive officers of the policies that Radford has in place to maintain its independence and objectivity, the compensation committee has determined that Radford s work for the compensation committee has not raised any conflicts of interest. In reaching these conclusions, the compensation committee considered the factors set forth in Exchange Act Rule 10C-1.

As part of its engagement in 2013, Radford collected data on executive compensation from a peer group of publicly traded companies developed by the compensation committee with Radford in July 2013. The compensation committee selected these companies at that time in the belief that these companies had business life cycles, market capitalizations, products, research and development investment levels and number/capabilities of employees that were then comparable to ours. In working with Radford to develop the 2013 peer group, the compensation committee and Radford generally targeted companies ranging from approximately one-third to three times Idera size in terms of number of employees and market capitalization, with lead drug candidates in Phase 2 or Phase 3 clinical development. In its assessment of companies with comparable market capitalization, the compensation committee assumed that all outstanding preferred stock and warrants to purchase common stock were converted into or exercised for shares of our common stock. The companies included in the 2013 peer group were:

Alimera Sciences, Inc. Athersys, Inc. BioCryst Pharmaceuticals, Inc.

Biodel Inc. Cempra, Inc. Chelsea Therapeutics International, Ltd.

Corcept Therapeutics Incorporated Durata Therapeutics, Inc. Heron Therapeutics, Inc. (formerly known

as A.P. Pharma, Inc.)

ImmunoCellular Therapeutics, Ltd. Inovio Pharmaceuticals, Inc. KaloBios Pharmaceuticals, Inc.

NeoStem, Inc. Neuralstem, Inc. OncoGenex Pharmaceuticals, Inc.

Oncothyreon Inc. Pozen Inc. StemCells, Inc.

Targacept, Inc. Zalicus Inc.

In connection with the compensation committee s annual performance and compensation review in November 2013 and December 2013, Radford provided the compensation committee with a blend of the data from the 2013 peer group and compensation survey data from the Radford 2013 Global Life Science Survey, a survey of U.S. biotech companies. We refer to this blended data as the 2013 market compensation data. The compensation committee considered this 2013 market compensation data in making its compensation determinations in December 2013, including its determinations with respect to base salaries for 2014. The compensation committee also used this data in setting Dr. Brenner s compensation arrangements in January 2014.

As part of its engagement in February 2014, in connection with its review of our director compensation program, Radford worked with the compensation committee to select a revised peer group. In working with

Radford to develop the revised peer group, the compensation committee and Radford generally targeted mid- to late-development stage companies conducting Phase 2 or Phase 3 clinical trials, with approximately 15 to 60 employees and valuations ranging from one-half to one and one-half times Idera s size in terms of market capitalization. In its assessment of companies with comparable market capitalizations, the compensation committee assumed that all outstanding preferred stock and warrants to purchase common stock were converted into or exercised for shares of our common stock. The companies included in the 2014 peer group were:

AcelRx Pharmaceuticals Inc.* Achillion Pharmaceuticals, Inc.* BioCryst Pharmaceuticals, Inc.

bluebird bio Inc.* Cempra, Inc. Chelsea Therapeutics International, Ltd.

Chimerix, Inc.* Corcept Therapeutics Incorporated CytRx Corporation*

Durata Therapeutics, Inc. Enanta Pharmaceuticals, Inc.* Endocyte Inc.*

Inovio Pharmaceuticals, Inc. Insmed Incorporated* Intra-Cellular Therapies, Inc.*

Neuralstem, Inc. Orexigen Therapeutics, Inc.* Repros Therapeutics Inc.*

Verastem, Inc.*

* Represents companies included in this peer group and not included in the 2013 peer group. The following 13 companies were eliminated from the 2014 peer group by the compensation committee as described above: Alimera Sciences, Inc., Athersys, Inc., Biodel Inc., Heron Therapeutics, Inc. (formerly known as A.P. Pharma, Inc.), ImmunoCellular Therapeutics, Ltd., Inc., KaloBios Pharmaceuticals, Inc., NeoStem, Inc., OncoGenex Pharmaceuticals, Inc., Oncothyreon Inc., Pozen Inc., StemCells, Inc., Targacept, Inc. and Zalicus Inc. In connection with the compensation committee s annual performance and compensation review in November 2014 and December 2014, Radford provided the compensation committee with a blend of the data from the 2014 peer group and compensation survey data from the Radford 2014 Global Life Sciences Survey, a survey of U.S. biotech companies. We refer to this blended data as the 2014 market compensation data. Our compensation committee considered this 2014 market compensation data in making its compensation determinations in December 2014, including its determination with respect to bonuses for 2014 and option awards. The compensation committee also considered this 2014 market compensation arrangements.

Our compensation committee intends that if we achieve our corporate goals and the executive performs at the level expected, then the executive should have the opportunity to receive compensation that is competitive with industry norms. Accordingly, our compensation committee generally targets overall compensation for executives towards the 50th percentile of the market compensation data presented by Radford. However, the compensation committee from time to time targets a different percentile for individual elements of compensation or specific individuals based on experience, performance levels and potential performance levels of the executive and changes in duties and responsibilities.

In order to accomplish its objectives consistent with its philosophy for executive compensation, our compensation committee typically takes the following actions annually:

reviews executive officer performance;

reviews all components of executive officer compensation, including base salary, cash bonuses, equity compensation, the dollar value to the executive and cost to us of all health and life insurance and other employee benefits and the estimated payout obligations under severance and change in control scenarios;

seeks input from our chief executive officer on the performance of all other executive officers;

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holds executive sessions (without our management present);

reviews information regarding the performance and executive compensation of other companies; and

reviews all of the foregoing with the board of directors.

Under our annual performance review program for our executives, annual performance goals are determined for our company as a whole and for each executive individually. Annual corporate goals are proposed by management and approved by the compensation committee. These corporate goals target the achievement of specific research, clinical, operational and financial milestones.

Annual individual goals focus on contributions that facilitate the achievement of the corporate goals and are closely aligned with the corporate goals. Individual goals are proposed by each executive and approved by the chief executive officer and the compensation committee. Typically, the compensation committee sets the chief executive officer s goals and reviews and discusses with the chief executive officer the goals for all other executive officers. The individual performance goals of each named executive officer consist primarily of the key objectives and goals from our annual business plan that relate to the functional area for which the named executive officer is responsible. The individual performance goals for the chief executive officer are largely coextensive with the corporate goals.

Generally, at the end of each year, the compensation committee evaluates corporate and individual performance. The compensation committee considers the achievement of the corporate goals and individual performance as factors in determining annual salary increases, annual bonuses and annual stock option awards granted to our executives, although because of their high level of responsibility within our company, the determination of annual bonuses for our executive officers, including our named executive officers, is heavily weighted on our corporate performance. In assessing corporate performance, the compensation committee evaluates corporate performance alongside the approved corporate goals for the year and also evaluates other aspects of corporate performance, including achievements and progress made by us outside of the corporate goals. In assessing individual performance, the compensation committee evaluates corporate performance in the areas of each officer s responsibility and relies on the chief executive officer s evaluation of each officer. The chief executive officer prepares evaluations of the other executives and in doing so compares individual performance to the individual performance goals. The chief executive officer recommends annual executive salary increases, annual stock option awards and bonuses, if any, for the other executives, which are then reviewed and approved by the compensation committee. In the case of the chief executive officer, the compensation committee conducts his individual performance evaluation. During this process, the compensation committee consults with its compensation consultant and, prior to approving compensation for executive officers, consults with the board of directors.

For all executives, annual base salary increases, if any, are implemented during the first calendar quarter of the year. Annual stock option awards and bonuses, if any, are granted as determined by the compensation committee, typically in the fourth quarter of the applicable year.

The compensation committee generally does not plan to approve annual equity grants to employees, including named executive officers, at a time when our company is in possession of material non-public information. We do not award stock options to named executive officers concurrently with the release of material non-public information.

Elements of Executive Compensation

The compensation program for our executives generally consists of five elements based upon the foregoing objectives:

base salary;

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annual cash bonuses:

stock option awards;

health care and life insurance and other employee benefits; and

severance and change in control benefits.

The value of our variable, performance-based compensation is split between short-term compensation in the form of a cash bonus and long-term compensation in the form of stock option awards that vest over time from the time of the grant of the option awards or from the time of achievement of performance milestones. The annual cash bonus is intended to provide an incentive to our executives to achieve near-term operational objectives. The stock option awards provide an incentive for our executives to achieve longer-term strategic business goals, which should lead to higher stock prices and increased stockholder value. We have not had any formal or informal policy or target for allocating compensation between long-term and short-term compensation, between cash and non-cash compensation or among the different forms of non-cash compensation. Instead, the compensation committee, after reviewing industry information and our cash resources, determines subjectively what it believes to be the appropriate level and mix of the various compensation components.

We do not have any defined benefit pension plans or any non-qualified deferred compensation plans.

We are, or were, party to employment agreements and employment offer letters with each of our named executive officers. Other than our employment agreement with Dr. Agrawal, none of these employment agreements and employment offer letters include provisions providing for tax gross-ups and our compensation committee does not intend to include such provisions in employment related agreements in the future. Employment agreements and employment offer letters with our named executive officers are described below under the caption Agreements with our Named Executive Officers.

Base Salary

In establishing base salaries for our executive officers, our compensation committee typically reviews the market compensation data presented by Radford, considers historic salary levels of the executive officer and the nature of the executive officer s responsibilities, compares the executive officer s base salary with those of our other executives and considers the executive officer s performance. The compensation committee also typically considers the challenges involved in hiring and retaining managerial personnel and scientific personnel with extensive experience in the chemistry of DNA and RNA and its application to toll-like receptors because of the nature of this technology, general economic conditions and our financial condition. In assessing the executive officer s performance, the compensation committee considers the executive officer with respect to such executive officer. The compensation committee considers such evaluation as a means of informing the compensation committee s decision as to whether the executive officer s performance was generally consistent with our expectations.

In December 2013, in connection with its annual performance and compensation review, the compensation committee approved new annual base salaries for our executive officers, effective as of January 1, 2014. In setting these salaries, the compensation committee reviewed the 2013 market compensation data presented by Radford. After reviewing such data and taking into consideration the items described in the preceding paragraph and the fact that the base salaries of Dr. Agrawal, Mr. Arcudi and Dr. Arbeit had not been increased since 2011, the compensation committee increased annual base salaries for each of the three named executive officers for 2014 by 4.0%.

The compensation committee also relied on the 2013 market compensation data in setting the terms of Dr. Brenner s compensation arrangements at the time of his hiring in January 2014. Specifically, with respect to

Dr. Brenner s base salary, the compensation committee considered the 2013 market compensation data and the base salaries of our other executive officers and determined that an annual base salary of \$350,000 was consistent with the 50th percentile of the 2013 market compensation data.

As part of our December 2014 annual performance and compensation review, the compensation committee approved new annual base salaries for our executive officers for 2015. In setting these annual base salaries, the compensation committee reviewed the 2014 market compensation data presented by Radford. After reviewing such data, the compensation committee approved increases in the annual base salaries of each of our named executive officers by 3.0%, yielding the following new annual base salaries for our named executive officers, other than Messrs. Milano and Wolf, effective as of January 1, 2015: Dr. Agrawal \$588,100; Dr. Brenner \$360,500; Mr. Arcudi \$337,400; and Dr. Arbeit \$321,400.

The compensation committee also relied on the 2014 market compensation data in setting the terms of Messrs. Milano s and Wolf s compensation arrangements at the time of their hiring in December 2014. Specifically, with respect to Messrs. Milano s and Wolf s base salaries, the compensation committee determined that an annual base salary of \$600,000 and \$360,000, respectively, was consistent with the 50th percentile of the 2014 market compensation data and the scale of base salaries of our other executive officers.

Cash Bonuses

The compensation committee generally structures cash bonuses by linking them to the achievement of the annual corporate goals, corporate performance outside of the corporate goals and individual performance. The amount of the bonus paid, if any, varies among the executive officers depending on individual performance and their contribution to the achievement of our annual corporate goals and corporate performance generally. The compensation committee reviews and assesses corporate goals and individual performance by executive officers and considers the reasons why specific goals have been achieved or have not been achieved. While achievement against the applicable corporate goals is given substantial weight in connection with the determination of annual bonuses, consideration is also given to an evaluation of our named executive officers individual performance based on analysis of achievement of individual performance goals as well as the following subjective criteria:

leadership;
management;
judgment and decision making skills;
results orientation; and

communication.

No formula is applied to the analysis of the achievement of corporate goals or individual goals by executive officers for purposes of the compensation committee s determination of annual cash bonuses, and no weighting was assigned to the corporate goals when they were originally adopted by the compensation committee.

In determining bonuses for 2014 as part of its annual performance and compensation review in December 2014, the compensation committee considered the target percentages to be used by the compensation committee for each of our named executive officers and our overall performance for purposes of the 2014 bonus awards. In determining the target bonus percentages to be used, the compensation committee concluded that the target bonus percentages should be consistent with the 50th percentile of the 2014 market compensation data and that there be no difference in the target bonus percentages of our executive officers, other than Dr. Agrawal and Dr. Brenner. Based on these factors, the compensation committee determined to use a 30% target bonus percentage for each of our executive officers, other than Dr. Agrawal and Dr. Brenner, and a 50% target bonus percentage for Dr. Agrawal and a 35% target bonus percentage for Dr. Brenner, in each case in accordance with their employment agreements with us.

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In assessing the company s performance against its 2014 corporate goals, the compensation committee considered the goals that were not achieved and the reasons for those goals not being achieved. In addition, the compensation committee considered the company s additional accomplishments in 2014, including the establishment of and progress in the company s Duchenne muscular dystrophy and immuno-oncology programs. Recognizing the achievements of the company in 2014, that the company s goals had changed over the course of 2014, that progress in the key clinical programs was paramount and that the company should be rewarded for its flexibility and responsiveness to the changes in the company s strategy, the compensation committee determined to use a performance rating of 100% for the 2014 bonuses. As a result, the compensation committee awarded Dr. Agrawal a bonus equal to 100% of his 50% bonus target. For the other named executive officers, the compensation committee awarded bonuses at 100% of their respective bonus targets, specifically 30% in the case of Mr. Arcudi, 35% in the case of Dr. Brenner and 30% in the case of Dr. Arbeit.

In connection with negotiating the compensation arrangements for Messrs. Milano and Wolf in December 2014, the compensation committee agreed that their bonus targets would be 50% and 35% of base salary, respectively. Mr. Milano and Mr. Wolf, who joined our company in December 2014, did not receive 2014 bonus awards.

Equity Compensation

Our equity award program is the primary vehicle for offering long-term incentives to our executive officers, including our named executive officers. We believe that equity awards provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our named executive officers and our stockholders. Equity grants are intended as both a reward for contributing to the long-term success of our company and an incentive for future performance. The vesting feature of our equity awards is intended to further our goal of executive retention by providing an incentive to our named executive officers to remain in our employ during the vesting period. In determining the size of equity awards to our executives, our compensation committee considers the achievement of our annual corporate goals, individual performance, the applicable executive officer s previous awards, including the exercise price of such previous awards, the recommendations of management and the market compensation data presented by Radford.

Our equity awards have typically taken the form of stock options. However, under the terms of our stock incentive plans, we may grant equity awards other than stock options, such as restricted stock awards, stock appreciation rights and restricted stock units.

The compensation committee approves all equity awards to our executive officers. The compensation committee reviews all components of the executive officer s compensation when determining annual equity awards to ensure that an executive officer s total compensation conforms to our overall philosophy and objectives.

The compensation committee typically makes initial stock option awards to new executive officers upon commencement of their employment and annual stock option awards thereafter. In December 2014, the compensation committee agreed that initial option grants would vest with respect to 25% of the shares subject to the option on the first anniversary of commencement of employment and with respect to the balance of the shares subject to the option in 12 equal quarterly installments over the three year period thereafter. Equity awards to our named executive officers after the initial grants are typically granted annually in conjunction with the annual performance review. This review typically occurs at the regularly scheduled meeting of the compensation committee held in the fourth quarter of each year. In general, our annual option awards vest over four years in equal quarterly installments. The exercise price of stock options equals the fair market value of our common stock on the date of grant, which is typically equal to the closing price of our common stock on Nasdaq on the date of grant.

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In December 2013, the compensation committee granted Dr. Brenner a stock option to purchase 600,000 shares of our common stock, effective upon his commencement of employment with us. In determining the size of this initial stock option award, the compensation committee considered the 2013 market data presented by Radford and the equity holdings of our other executive officers. As part of the negotiation of Dr. Brenner s compensation arrangements, the committee agreed that this stock option award would vest with respect to 25% of the shares subject to the option on the first anniversary of commencement of employment and with respect to the balance of the shares subject to the option in 12 equal quarterly installments over the three year period thereafter, subject to Dr. Brenner s continued employment with us on each vesting date

In December 2014, as part of its annual compensation and performance review, the compensation committee reviewed the 2014 market compensation data regarding annual option grants. In determining the size of these annual option awards, the compensation committee determined to target awards at the 50th percentile of the 2014 market compensation data provided by Radford. The compensation committee considered the Company is performance in 2014, the value of options then held by executive officers and Dr. Agrawal is recommendations with respect to the awards to be made to the other executive officers. In addition, in comparing the percentage ownership in our company that an option grant would represent to the market compensation data that had been provided by Radford, the compensation committee also considered the impact of outstanding warrants to purchase shares of our common stock. The compensation committee also determined to level the size of the option grants among the company is executive officers based on their roles with us. On this basis, the compensation committee granted Dr. Agrawal an option to purchase 850,000 shares of our common stock, Mr. Arcudi an option to purchase 200,000 shares of our common stock, Dr. Brenner an option to purchase 350,000 shares of our common stock and Dr. Arbeit an option to purchase 200,000 shares of our common stock. These option awards vest in equal quarterly installments over four years from the date of grant, subject to continued employment with us on each vesting date.

The compensation committee relied on the 2014 market compensation data in its determination of the initial stock option grants to each of Messrs. Milano and Wolf, which became effective at the times of their hiring in December 2014. Specifically, with respect to the size of the initial stock option grants to Messrs. Milano and Wolf, the compensation committee determined that options to purchase 2,000,000 and 600,000 shares of our common stock, respectively, were consistent with the 50th percentile of the 2014 market compensation data with respect to equity grants. These stock options vest with respect to 25% of the shares subject to the option on the first anniversary of each of Messrs. Milano s and Wolf s commencement of employment with us and with respect to the balance of the shares subject to the option in 12 equal quarterly installments over the three year period thereafter, subject to their respective continued employment with us on each vesting date.

Benefits and Other Compensation

We maintain broad-based benefits that are provided to all employees, including health and dental insurance, life and disability insurance and a 401(k) plan. During 2014, consistent with our prior practice, we matched 50% of the employee contributions to our 401(k) plan up to a maximum of 6% of the participating employee s annual salary, resulting in a maximum company match of 3% of the participating employee s annual salary, and subject to certain additional statutory dollar limitations. Named executive officers are eligible to participate in all of our employee benefit plans, in each case on the same basis as other employees and subject to any limitations in such plans. Each of our named executive officers, other than Messrs. Milano and Wolf, contributed to our 401(k) plan and their contributions were matched by us.

Our board of directors has adopted a retirement policy to address the treatment of options in the event of an employee s retirement that applies to all employees, including all officers. For purposes of this policy, an employee will be deemed to have retired if the employee terminates his or her employment with us, has been an employee of ours for more than 10 years and is older than 65 upon termination of employment. Under the policy, if an employee retires, then:

all outstanding options held by the employee will automatically vest in full; and

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the period during which the employee may exercise the options will be extended to the expiration of the term of the option under the applicable option agreement.

Our board adopted this policy for our employees in recognition of the importance of stock options to the compensation of employees and in order to provide each of our employees with the opportunity to get the full benefit of the options held by the employee in the event of his or her retirement after making 10 years of contributions to our company.

We occasionally pay relocation expenses for newly-hired executive officers who we require to relocate as a condition to their employment by us. We also occasionally pay local housing expenses and travel costs for executives who maintain a primary residence outside of a reasonable daily commuting range to our headquarters. We believe that these are typical benefits offered by comparable companies to executives who are asked to relocate and that we would be at a competitive disadvantage in trying to attract executives who would need to relocate in order to work for us if we did not offer such assistance.

Our named executive officers also may participate in our employee stock purchase plan, which is generally available to all employees who work over 20 hours per week, including our executive officers, so long as they own less than 5% of our common stock, including for this purpose vested and unvested stock options. None of our named executive officers participated in the employee stock purchase plan during 2014.

Severance and Change in Control Benefits

Under our employment agreements and employment offer letters with our named executive officers, we have agreed to provide severance and other benefits in the event of the termination of their employment under specified circumstances. We have provided more detailed information about these benefits, along with estimates of their value under various circumstances, under the captions Agreements with our Named Executive Officers and Potential Payments Upon Termination or Change in Control below.

We believe providing severance and/or change in control benefits as a component of our compensation structure can help us compete for executive talent and attract and retain highly talented executive officers whose contributions are critical to our long-term success. After reviewing the practices of companies in general industry surveys provided by Radford, we believe that our severance and change in control benefits are appropriate.

Deductibility of Executive Compensation/Internal Revenue Code Section 162(m)

Section 162(m) of the Code generally disallows a tax deduction to public companies for certain compensation in excess of \$1 million paid to each of our chief executive officer and our three other most highly compensated officers (other than the chief financial officer). Certain compensation, including qualified performance-based compensation, will not be subject to the deduction limit if specified requirements are met. The compensation committee reserves the right to use its judgment to authorize compensation payments that may be subject to the limit when the compensation committee believes such payments are appropriate and in the best interests of our company and our stockholders. There can be no assurance that compensation awarded to our executive officers will be treated as qualified performance-based compensation under Section 162(m).

Agreements with our Named Executive Officers

We have entered into agreements with certain of our named executive officers, as discussed below, that provide benefits to the executives upon their termination of employment in certain circumstances or under which we have agreed to specific compensation elements. Other than as discussed below, our named executive officers do not have employment agreements with us, other than standard employee confidentiality agreements, and are at-will employees.

Vincent J. Milano

We are a party to an employment offer letter with Mr. Milano, our President and Chief Executive Officer. Under the employment offer letter, Mr. Milano is entitled to receive an annual base salary of \$600,000 or such higher amount as our compensation committee or our board of directors may determine. In addition, under the employment offer letter, Mr. Milano is eligible to receive an annual bonus of up to 50% of his base salary based on the achievement of both individual and company performance objectives as developed and determined by our board of directors.

Under the employment offer letter, if we terminate Mr. Milano s employment without cause, prior to a change-in-control, as such terms are defined in the agreement, he will be entitled to 24 months severance and benefits continuation for the shorter of 24 months or the date his COBRA continuation coverage expires and to receive any bonus that he earned and that our board of directors approved prior to the termination to the extent not then paid. If we terminate Mr. Milano s employment without cause or Mr. Milano terminates his employment with us for good reason, as such terms are defined in the agreement, upon or within one year after a change in control, he will be entitled to 24 months severance and benefits continuation for the shorter of 24 months or the date his COBRA continuation coverage expires and to receive any bonus that he earned and that our board of directors approved prior to the termination to the extent not then paid and the inducement option award that he received upon his commencement of employment with us will vest in full and become immediately exercisable. Our obligation to provide severance and benefits continuation to Mr. Milano following termination of his employment is subject to Mr. Milano s entering into a separation and release agreement.

Sudhir Agrawal, D. Phil.

We are a party to an employment agreement, as amended, with Dr. Agrawal, our President of Research and former President and Chief Executive Officer. The agreement had an initial three-year term that is automatically extended for an additional year on October 19th of each year during the term of the agreement unless either party provides prior written notice to the other that the term of the agreement is not to be extended. As a result, on each October 19th, the term of the agreement, as extended, will be three years. On October 19, 2014, the term was extended from October 19, 2016 to October 19, 2017.

Under the agreement, Dr. Agrawal is currently entitled to receive an annual base salary of \$588,100 or such higher amount as our compensation committee or our board of directors may determine. In addition, under the agreement, as modified in December 2014, Dr. Agrawal is eligible to receive an annual bonus in an amount equal to 50% of his base salary, as determined by the compensation committee or our board of directors.

If we terminate Dr. Agrawal s employment without cause or if he terminates his employment for good reason, as such terms are defined in the agreement, we have agreed to:

continue to pay Dr. Agrawal his base salary as severance for a period ending on the earlier of the final day of the term of the agreement in effect immediately prior to such termination and the second anniversary of his termination date;

pay Dr. Agrawal a lump sum cash payment equal to the pro rata portion of the annual bonus that he earned in the year preceding the year in which his termination occurs;

continue to provide Dr. Agrawal with healthcare, disability and life insurance benefits for a period ending on the earlier of the final day of the term of the agreement in effect immediately prior to the termination date and the second anniversary of the termination date, except to the extent another employer provides Dr. Agrawal with comparable benefits;

accelerate the vesting of any stock options or other equity incentive awards previously granted to Dr. Agrawal as of the termination date to the extent such options or equity incentive awards would have vested had he continued to be an employee until the final day of the term of the agreement in effect immediately prior to such termination; and

permit Dr. Agrawal to exercise any vested stock options until the second anniversary of the termination date.

If Dr. Agrawal s employment is terminated by him for good reason or by us without cause in connection with, or within one year after, a change in control, as such terms are defined in the agreement, we have agreed to provide Dr. Agrawal with all of the items listed above, except that in lieu of the severance amount described above, we will pay Dr. Agrawal a lump sum cash payment equal to his base salary multiplied by the lesser of the aggregate number of years or portion thereof remaining in his employment term and two years. We have also agreed that if we execute an agreement that provides for our company to be acquired or liquidated, or otherwise upon a change in control, all unvested stock options held by Dr. Agrawal will vest in full.

Our employment agreement with Dr. Agrawal provides that if all or a portion of the payments made under the agreement are subject to the excise tax imposed by Section 4999 of the Code, or a similar state tax or assessment, we will pay him an amount necessary to place him in the same after-tax position as he would have been had no excise tax or assessment been imposed. Any amounts paid pursuant to the preceding sentence will also be increased to the extent necessary to pay income and excise tax on those additional amounts.

In the event of Dr. Agrawal s death or the termination of his employment due to disability, we have agreed to pay Dr. Agrawal or his beneficiary a lump sum cash payment equal to the pro rata portion of the annual bonus that he earned in the year preceding his death or termination due to disability. Additionally, any stock options or other equity incentive awards previously granted to Dr. Agrawal and held by him on the date of his death or termination due to disability will vest as of such date to the extent such options or equity incentive awards would have vested had he continued to be an employee until the final day of the term of the employment agreement in effect immediately prior to his death or termination due to disability. Dr. Agrawal or his beneficiary will be permitted to exercise such stock options until the second anniversary of his death or termination of employment due to disability.

Dr. Agrawal has agreed that during his employment with us and for a one-year period thereafter, he will not hire or attempt to hire any of our employees or compete with us.

In connection with his transition to his new role of President of Research in December 2014, we and Dr. Agrawal agreed that his employment would continue to be subject to and on the terms and conditions set forth in his employment agreement but for the change in position and the modification of Dr. Agrawal s target bonus to be a fixed at 50% of base salary rather than the 20% to 70% of base salary range set forth in the employment agreement. In addition, Dr. Agrawal acknowledged and agreed that, notwithstanding anything to the contrary set forth in his employment agreement, the transition of his employment from President and Chief Executive Officer to President of Research, and the changes in his authority, duties, responsibilities and reporting structure associated with such event, would not constitute good reason, as defined in the employment agreement, and that he would not and could not terminate his employment for good reason on the basis of such event and changes.

In consideration of the foregoing agreements, we agreed that the vesting of any and all stock options then held by Dr. Agrawal would be accelerated such that, as of that date, such options would be deemed vested to the extent such options would have been vested had Dr. Agrawal continued to be employed by us on October 19, 2017, and any portion of such options that remained unvested after giving effect to such acceleration would continue to vest in accordance with their respective terms. This acceleration did not apply to the options granted to Dr. Agrawal in December 2014.

Louis J. Arcudi, III

We are a party to an employment letter with Mr. Arcudi, our Senior Vice President of Operations, Chief Financial Officer, Treasurer and Secretary. Under the employment letter, Mr. Arcudi is entitled to receive an annual base salary of \$337,400, which amount is subject to adjustment from time to time in accordance with

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normal business practices. In addition, under the employment letter, Mr. Arcudi is entitled to receive an annual bonus in an amount approved by our board or the compensation committee based on the achievement of both individual and company performance objectives as developed and determined by our board of directors.

Under the employment letter, if we terminate Mr. Arcudi s employment without cause at any time, or if he terminates his employment for good reason upon a change in control or within one year after a change of control, as such terms are defined in the agreement, we have agreed to:

continue to pay Mr. Arcudi his base salary as severance for 12 months following such termination payable in accordance with our then current payroll practices; and

continue to provide Mr. Arcudi with health and dental benefits for 12 months following such termination, except to the extent another employer provides Mr. Arcudi with comparable benefits.

Our agreement to pay severance and benefits is subject to Mr. Arcudi s entering into a separation and release agreement.

Louis Brenner

We were a party to an employment offer letter with Dr. Brenner, who served as our Senior Vice President and Chief Medical Officer from January 2014 to April 2015. Under the terms of the employment offer letter, Dr. Brenner was entitled to receive an annual base salary of \$360,500 or such higher amount as our compensation committee or our board of directors determined. In addition, under the employment offer letter, Dr. Brenner was eligible to receive an annual bonus of up to 35% of his base salary based on the achievement of both individual and company performance objectives as established by our board of directors. Dr. Brenner s bonus for 2014 was guaranteed to be at least \$122,500 for 2014 if he remained employed by us through December 31, 2014. The employment offer letter also provided severance and other benefits in the event of the termination of his employment under specified circumstances. No severance or other benefits were owed in connection with his resignation of employment with us in April 2015.

John Peter Wolf, III

We were a party to an employment offer letter with Mr. Wolf, who served as our Senior Vice President, General Counsel from December 2014 to March 2015. Under the terms of the employment offer letter, Mr. Wolf was entitled to receive an annual base salary of \$360,000 or such higher amount as our compensation committee or our board of directors determined. In addition, under the employment offer letter, Mr. Wolf was eligible to receive an annual bonus of up to 35% of his base salary based on the achievement of both individual and company performance objectives as established by our board of directors. The employment offer letter also provided severance and other benefits in the event of the termination of his employment under specified circumstances. No severance or other benefits were owed in connection with his resignation of employment with us in March 2015.

Robert D. Arbeit

Dr. Arbeit served as our Vice President, Clinical Development from August 2009 to January 2015. In connection with his transition into a consulting role with us, in January 2015, we entered into a consulting agreement with Dr. Arbeit. Pursuant to the consulting agreement, Dr. Arbeit has agreed to provide consulting services to us through July 31, 2015, unless terminated by either Dr. Arbeit or us at an earlier date, and we have agreed to pay Dr. Arbeit a consulting fee of \$175 per hour, not to exceed \$1,400 per day and \$14,000 per month. These fees are payable pursuant to the consulting agreement based upon services actually performed. We and Dr. Arbeit may each terminate the consultation period upon 30 days prior written notice.

Formal Clawback Policy

In April 2015, ahead of any such requirement in the Dodd-Frank Wall Street Reform and Consumer Protection Act, our compensation committee adopted a formal clawback policy, which will apply in the event we are required to prepare an accounting restatement after the adoption of the clawback policy due to any material noncompliance with any financial reporting requirement under the U.S. federal securities laws. This policy requires us to use reasonable efforts to recover from any of our current or former executive officers who receive incentive-based compensation (including stock options awarded as compensation) during the three-year period preceding the date on which we are required to prepare an accounting restatement based on erroneous data, the excess of what would have been paid to such executive officer under the accounting restatement.

Compensation Committee Report

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

By the compensation committee of the board of directors,

Malcolm MacCoss, Chairman

Youssef El Zein

Kelvin Neu

Eve E. Slater

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Summary Compensation Table

The table below summarizes compensation paid to or earned by our named executive officers for 2014, 2013 and 2012.

Summary Compensation Table for Fiscal Year 2014

Principal Position Year Salary (\$) Bonus (\$) (\$)(1) (\$)(2) Total (\$)	Name and				Option Awards	All Other Compensation	
President and Chief Executive Officer Sudhir Agrawal, D. Phil.(4) Former President and Chief Executive Officer Sudhir Agrawal, D. Phil.(4) Former President and Chief Executive Officer 2013 549,000 274,500 1,875,425 31,589 2,730,514 2012 549,000 24,019 75,447 648,466 and Current President of Research Louis J. Arcudi, III 2014 327,600 98,300 506,700 29,690 962,290 Senior Vice President of Operations, Chief 2013 315,000 94,500 581,957 31,033 1,022,490 2012 315,000 94,500 581,957 31,033 1,022,490 43,523 358,523 Financial Officer, Treasurer and Secretary Louis Brenner, M.D.(5) Former Senior Vice President and Chief Medical Officer Medical Officer John Peter Wolf, III(6) Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	Principal Position	Year	Salary (\$)	Bonus (\$)	(\$)(1)	(\$)(2)	Total (\$)
Former President and Chief Executive Officer 2013 549,000 274,500 1,875,425 31,589 2,730,514 2012 549,000 24,019 75,447 648,466 and Current President of Research Louis J. Arcudi, III 2014 327,600 98,300 506,700 29,690 962,290 Senior Vice President of Operations, Chief 2013 315,000 94,500 581,957 31,033 1,022,490 2012 315,000 43,523 358,523 Financial Officer, Treasurer and Secretary Louis Brenner, M.D.(5) 2014 346,023 150,500 2,836,965 13,136 3,346,624 Former Senior Vice President and Chief Medical Officer John Peter Wolf, III(6) 2014 20,455 1,520,100 1,720 1,542,275 Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	President and Chief	2014	50,000		3,977,400	2,138	4,029,538
Former President and Chief Executive Officer 2013 549,000 274,500 1,875,425 31,589 2,730,514 2012 549,000 24,019 75,447 648,466 and Current President of Research Louis J. Arcudi, III 2014 327,600 98,300 506,700 29,690 962,290 Senior Vice President of Operations, Chief 2013 315,000 94,500 581,957 31,033 1,022,490 2012 315,000 43,523 358,523 Financial Officer, Treasurer and Secretary Louis Brenner, M.D.(5) 2014 346,023 150,500 2,836,965 13,136 3,346,624 Former Senior Vice President and Chief Medical Officer John Peter Wolf, III(6) 2014 20,455 1,520,100 1,720 1,542,275 Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	Sudhir Agrawal D. Phil (4)	2014	570 960	285 480	2 153 475	32.681	3 042 596
2012 549,000 24,019 75,447 648,466			,	,		,	
Louis J. Arcudi, III 2014 327,600 98,300 506,700 29,690 962,290 Senior Vice President of Operations, Chief 2013 315,000 94,500 581,957 31,033 1,022,490 2012 315,000 43,523 358,523 Financial Officer, Treasurer and Secretary Louis Brenner, M.D.(5) 2014 346,023 150,500 2,836,965 13,136 3,346,624 Former Senior Vice President and Chief Medical Officer John Peter Wolf, III(6) 2014 20,455 1,520,100 1,720 1,542,275 Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620		2012	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,	
Senior Vice President of Operations, Chief 2013 315,000 94,500 581,957 31,033 1,022,490 43,523 358,523 Financial Officer, Treasurer and Secretary Louis Brenner, M.D.(5) 2014 346,023 150,500 2,836,965 13,136 3,346,624 Former Senior Vice President and Chief 2014 20,455 1,520,100 1,720 1,542,275 Former Senior Vice President and General 2014 312,000 93,600 506,700 12,071 924,371 Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 382,819 11,801 784,620	and Current President of Research		ŕ			ŕ	,
2012 315,000 43,523 358,523			327,600	98,300	506,700	29,690	962,290
Financial Officer, Treasurer and Secretary Louis Brenner, M.D.(5) 2014 346,023 150,500 2,836,965 13,136 3,346,624 Former Senior Vice President and Chief Medical Officer John Peter Wolf, III(6) 2014 20,455 1,520,100 1,720 1,542,275 Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	Senior Vice President of Operations, Chief		· · · · · · · · · · · · · · · · · · ·	94,500	581,957		
Louis Brenner, M.D.(5) Former Senior Vice President and Chief Medical Officer John Peter Wolf, III(6) Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) Former Vice President, 2014 2014 312,000 93,600 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620		2012	315,000			43,523	358,523
Former Senior Vice President and Chief Medical Officer John Peter Wolf, III(6) 2014 20,455 1,520,100 1,720 1,542,275 Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	Financial Officer, Treasurer and Secretary						
Medical Officer John Peter Wolf, III(6) 2014 20,455 1,520,100 1,720 1,542,275 Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	, , ,	2014	346,023	150,500	2,836,965	13,136	3,346,624
John Peter Wolf, III(6) 2014 20,455 1,520,100 1,720 1,542,275 Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620							
Former Senior Vice President and General Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	Medical Officer						
Counsel Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	John Peter Wolf, III(6)	2014	20,455		1,520,100	1,720	1,542,275
Robert D. Arbeit, M.D.(7) 2014 312,000 93,600 506,700 12,071 924,371 Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	Former Senior Vice President and General						
Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	Counsel						
Former Vice President, 2013 300,000 90,000 382,819 11,801 784,620	Robert D. Arbeit, M.D. (7)	2014	312 000	93 600	506 700	12 071	924 371
7-1	, ()		,	,	,	,	· · · · · · · · · · · · · · · · · · ·
	Clinical Development	2012	300,000	,,,,,,,,,	202,017	11,968	311,968

⁽¹⁾ Represents the aggregate grant date fair value of options granted to each of the named executive officers as computed in accordance with ASC 718. These amounts do not represent the actual amounts paid to or realized by the named executive officers. See Note 2(j) to the financial statements in our annual report on Form 10-K for the year ended December 31, 2014 regarding assumptions we made in determining the fair value of option awards.

⁽²⁾ All Other Compensation for 2014 for each of the named executive officers includes the following:

	Premiums paid by us for all insurance plans (\$)	Company match on 401(k) (\$)
Mr. Milano	2,138	
Dr. Agrawal	24,881	7,800
Mr. Arcudi	21,890	7,800
Dr. Brenner	5,336	7,800
Mr. Wolf	1,720	
Dr. Arbeit	4,271	7,800

- (3) Mr. Milano joined our company and became our President and Chief Executive Officer effective as of December 1, 2014.
- (4) Dr. Agrawal transitioned from the role of President and Chief Executive Officer to the role of President of Research effective as of December 1, 2014.
- (5) Dr. Brenner served as our Senior Vice President and Chief Medical Officer from January 2014 until his resignation, effective as of April 3, 2015.
- (6) Mr. Wolf served as our Senior Vice President and General Counsel from December 2014 until his resignation, effective as of March 27, 2015.

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(7) Dr. Arbeit ceased serving as an executive officer of our company effective as of June 10, 2014, but remained an employee until his resignation, effective as of January 30, 2015. Since his resignation, he has served as a consultant to us. Compensation reported includes compensation received by Dr. Arbeit as an employee of the company.

See Compensation Discussion and Analysis above for a discussion of annual cash bonuses and the amount of salary and bonus in proportion to total compensation.

Grants of Plan-Based Awards

The following table sets forth information regarding stock options granted to our named executive officers during 2014.

Grants of Plan-Based Awards for Fiscal Year 2014

Name	Grant Date	Date of Approval of Grant if Different from Grant Date	All Other Option Awards: Number of Securities Underlying Options (#)(1)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Option Awards (\$)(2)
			(π)(1)	(\$/511)	(Φ)(<i>2</i>)
Vincent J. Milano	12/1/2014(3)	11/24/2014			