IDERA PHARMACEUTICALS, INC. Form PRE 14A May 28, 2013 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:

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

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	No fee required.						
" Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.								
	1)	Title of each class of securities to which transaction applies:						
	2)	Aggregate number of securities to which transaction applies:						
	3)	Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):						
	4)	Proposed maximum aggregate value of transaction:						
	5)	Total fee paid:						
	Fee	paid previously with preliminary materials.						
" Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting 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:						

Table of Contents 2

Form, Schedule or Registration Statement No.:

3) Filing Party:

4) Date Filed:

IDERA PHARMACEUTICALS, INC.

167 Sidney Street

Cambridge, Massachusetts 02139

NOTICE OF 2013 ANNUAL MEETING OF STOCKHOLDERS

Date and Time: Friday, July 26, 2013 at 10:00 a.m., local time Place: Idera Pharmaceuticals, Inc. 167 Sidney Street Cambridge, Massachusetts 02139 **Items of Business:** At our 2013 annual meeting of stockholders we will ask our stockholders to: Approve amendments to our Restated Certificate of Incorporation to (a) declassify our board of directors, (b) provide that our stockholders may remove directors with or without cause following declassification of our board of directors and (c) eliminate the supermajority voting requirement for amending or repealing Article ELEVENTH of our Restated Certificate of Incorporation; Approve an amendment to our Restated Certificate of Incorporation to increase the number of authorized shares of our common stock from 140,000,000 shares to 280,000,000 shares; Approve, by non-binding vote, executive compensation; Approve the Idera Pharmaceuticals, Inc. 2013 Stock Incentive Plan; Ratify the selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2013; Elect three directors to our board of directors as named and for the terms indicated in this proxy statement;

Approve the issuance and sale by us to certain affiliates of Pillar Invest Corporation (including our prior issuances and sales of our securities to such affiliates in November 2011 and November 2012) of a number of shares of our common stock (including securities convertible into or exercisable for shares of our common stock) that is greater than 19.99% of the total number of issued and outstanding shares of common stock and of the outstanding voting power of our securities after such issuance and sale in accordance with Nasdaq Listing Rule 5635(b);

Approve amendments to our Restated Certificate of Incorporation amending the Certificate of Designations, Preferences and Rights of Series D Preferred Stock to:

(a) provide that, if the Nasdaq Proposal, as described below, were approved by our stockholders, the beneficial ownership limitation applicable to our Series D preferred stock would be increased from 19.99% to 35%, consistent with the beneficial ownership limitations applicable to our Series E preferred stock;

- (b) modify the dividend provisions of the Series D Certificate of Designations so that dividends on the Series E preferred stock are not required to be paid to the holders of our Series D preferred stock;
- (c) modify the dividend provisions of the Series D Certificate of Designations to (i) change the date after which we may elect to pay dividends to the holders of our Series D preferred stock in shares of our common stock in lieu of cash from December 31, 2014 to October 1, 2013, and (ii) allow for the payment of such dividends in shares of a to-be-created new series of our preferred stock in the event that payment of such dividends may not be made in shares of our common stock as a result of the application of the beneficial ownership limitations set forth in the Series D Certificate of Designations; and
- (d) (i) eliminate the provision of the Series D Certificate of Designations that had provided the holders of our Series D preferred stock with the right to require us to redeem the Series D preferred stock upon the occurrence of specified fundamental changes and provide, in the event of a sale of the corporation (as defined the Series D Certificate of Designations), for the distribution of any assets that remain available for distribution to our stockholders, after payment to the holders of our Series A preferred stock and any other class of our capital stock that ranks senior to the Series D preferred stock, to the holders of the Series D preferred stock on a pro rata basis with the holders of our common stock, Series E preferred stock and any new series of non-voting preferred stock that ranks pari passu with the Series D preferred stock and (ii) modify the Series D Certificate of Designations to eliminate the right of the holders of our Series D preferred stock to receive, in the event of a liquidation, dissolution or winding up of our company, or Liquidation, an amount per share of Series D preferred stock equal to the original issue price of such share of Series D preferred stock plus any dividends accrued or declared but unpaid thereon to the extent such amount is greater than the amount that would have been payable with respect to such share had all shares of Series D preferred stock been converted into shares of our common stock immediately prior to such Liquidation, such that upon a Liquidation the holders of our Series D preferred stock will receive an amount per share of Series D preferred stock equal to the amount that would be payable with respect to such share had all shares of Series D preferred stock been converted into shares of our common stock immediately prior to such Liquidation;

Approve amendments to our Restated Certificate of Incorporation amending the Certificate of Designations, Preferences and Rights of Series E Preferred Stock to:

(a) modify the dividend provisions of the Series E Certificate of Designations to (i) permit us to elect to pay dividends to the holders of our Series E preferred stock in shares of our common stock in lieu of cash commencing October 1, 2013, and (ii) allow for the payment of such dividends in shares of a to-be-created new series of our preferred stock in the event that payment of such

dividends may not be made in shares of our common stock as a result of the application of the beneficial ownership limitations set forth in the Series E Certificate of Designations; and

(b) modify the Series E Certificate of Designations to eliminate the right of the holders of our Series E preferred stock to receive, in the event of a Liquidation, an amount per share of Series E preferred stock equal to the original issue price of such share of Series E preferred stock plus any dividends accrued or declared but unpaid thereon to the extent such amount is greater than the amount that would have been payable with respect to such share had all shares of Series E preferred stock been converted into shares of our common stock immediately prior to such Liquidation, such that upon a Liquidation the holders of our Series E preferred stock will receive an amount per share of Series E preferred stock equal to the amount that would be payable with respect to such share had all shares of Series E preferred stock been converted into shares of our common stock immediately prior to such Liquidation; and

Transact any other business as may properly come before the 2013 annual meeting or any postponement or adjournment of the 2013 annual meeting.

The board of directors has no knowledge of any other business to be transacted at the 2013 annual meeting.

You may vote at the 2013 annual meeting if you were a stockholder of record at the close of business on June 3, 2013.

It is important that your shares be represented and voted at the annual meeting. Whether or not you plan to attend the 2013 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 2013 annual meeting.

Record Date:

Proxy Voting:

By order of the board of directors, Louis J. Arcudi, III Secretary Cambridge, Massachusetts June , 2013

TABLE OF CONTENTS

	Page
PROXY STATEMENT	1
INFORMATION ABOUT THE 2013 ANNUAL MEETING	2
Who may vote?	2
How do I vote my shares if I am a stockholder of record?	2
How do I vote my shares if I hold them in street name?	3
How may I change or revoke my vote?	3
What constitutes a quorum?	3
What vote is required to approve each matter and how will votes be counted?	4
How does the board of directors recommend that I vote?	5
Will any other business be conducted at the 2013 annual meeting of stockholders?	6
Who is making and paying for the solicitation of proxies and how is it made?	6
How and when may I submit a proposal for the 2014 annual meeting of stockholders?	6
Are annual meeting materials householded?	7
PROPOSAL ONE: APPROVAL OF AMENDMENTS TO OUR RESTATED CERTIFICATE OF INCORPORATION TO	
DECLASSIFY OUR BOARD OF DIRECTORS	8
PROPOSAL TWO: APPROVAL OF AN AMENDMENT TO OUR RESTATED CERTIFICATE OF INCORPORATION TO	10
INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK	12
PROPOSAL THREE: APPROVAL, BY NON-BINDING VOTE, OF EXECUTIVE COMPENSATION	13
EXECUTIVE COMPENSATION	15
Compensation Discussion and Analysis	15
Agreements with our Named Executive Officers	22
Compensation Committee Report	24
Summary Compensation Table	25
Grants of Plan-Based Awards	26
Outstanding Equity Awards At Fiscal Year-End	27
Option Exercises and Stock Vested	28
Potential Payments under Termination or Change in Control	28
EQUITY COMPENSATION PLAN INFORMATION	30
PROPOSAL FOUR: APPROVAL OF THE IDERA PHARMACEUTICALS, INC. 2013 STOCK INCENTIVE PLAN	31
	43
PROPOSAL FIVE: RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	43
ACCOUNTING MATTERS	43
Report of the Audit Committee	43
Independent Registered Public Accounting Firm Fees	44
Pre-Approval Policies and Procedures	44
PROPOSAL SIX: ELECTION OF DIRECTORS	45
CORPORATE GOVERNANCE INFORMATION	51
Board of Directors	51
Board Leadership Structure	51

i

Table of Contents

	Page
Board s Role in Risk Oversight	52
Board Committees	52
<u>Director Independence</u>	54
Director Nomination Process	54
Stockholder Nominees	54
Communicating with our Board of Directors	55
Director Attendance at Annual Meeting of Stockholders	55
Compensation Committee Interlocks and Insider Participation	55
Executive Officers of Idera	56
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	57
PROPOSAL SEVEN: APPROVE THE ISSUANCE AND SALE BY US TO CERTAIN AFFILIATES OF PILLAR INVEST	
CORPORATION (INCLUDING OUR PRIOR ISSUANCES AND SALES OF OUR SECURITIES TO SUCH AFFILIATES IN	
NOVEMBER 2011 AND NOVEMBER 2012) OF A NUMBER OF SHARES OF OUR COMMON STOCK (INCLUDING	
SECURITIES CONVERTIBLE INTO OR EXERCISABLE FOR SHARES OF OUR COMMON STOCK) THAT IS GREATER	
THAN 19.99% OF THE TOTAL NUMBER OF ISSUED AND OUTSTANDING SHARES OF COMMON STOCK AND OF THE	
OUTSTANDING VOTING POWER OF OUR SECURITIES AFTER SUCH ISSUANCE AND SALE IN ACCORDANCE WITH	
NASDAQ LISTING RULE 5635(B)	61
PROPOSAL EIGHT: APPROVAL OF AMENDMENTS TO OUR RESTATED CERTIFICATE OF INCORPORATION	
AMENDING THE CERTIFICATE OF DESIGNATIONS, PREFERENCES AND RIGHTS OF SERIES D CONVERTIBLE	
PREFERRED STOCK	71
PROPOSAL NINE: APPROVAL OF AMENDMENTS TO OUR RESTATED CERTIFICATE OF INCORPORATION	
AMENDING THE CERTIFICATE OF DESIGNATIONS, PREFERENCES AND RIGHTS OF SERIES E PREFERRED STOCK	79
TRANSACTIONS WITH RELATED PERSONS	83
Series E Preferred Stock and Warrant Financing	83
April 2013 Pillar Agreements	85
Public Offering	87
Policies and Procedures for Related Person Transactions	87
SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE	88

ii

IDERA PHARMACEUTICALS, INC.

167 Sidney Street

Cambridge, Massachusetts 02139

PROXY STATEMENT

For our Annual Meeting of Stockholders to be held on July 26, 2013

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 2013 annual meeting of stockholders. The 2013 annual meeting will be held on Friday, July 26, 2013, at 10:00 a.m., local time, at our principal offices located at 167 Sidney Street, Cambridge, Massachusetts 02139. If the 2013 annual meeting is adjourned for any reason, then proxies submitted may be used at any adjournments of the 2013 annual meeting.

This proxy statement summarizes information about the proposals to be considered at the 2013 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 June , 2013.

In this mailing, we are also including copies of our annual report to stockholders for the year ended December 31, 2012. Our annual report on Form 10-K for the year ended December 31, 2012, as filed with the Securities and Exchange Commission, or the SEC, on March 11, 2013, including our audited financial statements, is included in our annual report to stockholders 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 Annual Report on Form 10-K, which we will provide to you free of charge, or to obtain directions to be able to attend the 2013 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 2013 Annual Meeting

to Be Held on July 26, 2013:

The Notice of Annual Meeting, Proxy Statement and 2012 Annual Report are available at http://ir.iderapharma.com/phoenix.zhtml?c=208904&p=proxy.

1

INFORMATION ABOUT THE 2013 ANNUAL MEETING

Who may vote?

Holders of record of our common stock and our Series D redeemable convertible preferred stock, or Series D preferred stock, at the close of business on June 3, 2013, the record date for the 2013 annual meeting, are entitled to vote on each matter properly brought before the 2013 annual meeting. Except where expressly stated otherwise in this proxy statement, holders of our common stock and our Series D preferred stock will vote together as a single class. Except where expressly stated otherwise in this proxy statement, holders of our Series E convertible preferred stock, or Series E preferred stock, are not entitled to vote at the 2013 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. Holders of our Series D preferred stock will be entitled to cast a number of votes equal to the number of whole shares of common stock into which the shares of Series D Preferred Stock held by such holder are convertible as of the record date (rounded down to the nearest whole share). As of the record date, each share of Series D preferred stock is convertible into 5.5736 shares of common stock. On any matter set forth in this proxy statement in which the holders of our Series E preferred stock are entitled to vote, holders of our Series E preferred stock will be entitled to one vote for each share of Series E preferred stock held as of the record date. As of the close of business on June 3, 2013, the record date for the 2013 annual meeting, we had shares of common stock outstanding, shares of Series D preferred stock outstanding and

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 each proxy card. 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 card. 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 2013 annual meeting, you may vote by delivering your completed proxy card in person or you may vote by completing a ballot at the 2013 annual meeting. Ballots will be available at the 2013 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 2013 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, bank or brokerage firms 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. Bank or brokerage firms will have this discretionary authority with respect to routine matters such as the ratification of the selection of our independent registered public accounting firm; however, they will not have this discretionary authority with respect to any of the other matters scheduled to be voted upon at the 2013 annual meeting. As a result, with respect to all matters other than ratification of the selection of our independent registered public accounting firm, if the beneficial owners have not provided instructions with respect to that matter, those beneficial owners shares will be considered broker non-votes. Broker non-votes are shares with respect to which a bank or brokerage firm does not receive voting instructions from the beneficial holder and does not have or exercise discretionary authority in voting on a proposal. 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?

Regardless of whether your shares are held in street name, you are welcome to attend the 2013 annual meeting. If your shares are held in street name, you may not vote your shares in person at the 2013 annual meeting unless you obtain a proxy, executed in your favor, from the holder of record (i.e., your brokerage firm or bank). If you hold your shares in street name and wish to vote in person, please contact your brokerage firm or bank before the 2013 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 2013 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 2013 annual meeting, a quorum must be present. A quorum consists of the holders of shares of capital stock representing a majority of the combined voting power of our common stock and our Series D preferred stock that is issued, outstanding and entitled to vote at the 2013 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.

3

If a quorum is not present, the 2013 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 2013 annual meeting to be approved and the effect that withheld votes, abstentions 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 2013 annual meeting.

Proposal Amendments to Restated Certificate of Incorporation to Declassify Board of Directors (Proposals 1(a), 1(b) and 1(c))	Affirmative Vote Required At least 75% of issued and outstanding common stock and Series D preferred stock entitled to vote, voting together as a single class and on an as-converted basis	Abstentions/ Withholds Has the same effect as a vote AGAINST	Broker Non- Votes Has the same effect as a vote AGAINST	
Amendments to Restated Certificate of Incorporation to Increase Number of Authorized Shares of Common Stock (<i>Proposal 2</i>)	Majority of issued and outstanding common stock and Series D preferred stock entitled to vote, voting together as a single class and on an as-converted basis	Has the same effect as a vote AGAINST	Has the same effect as a vote AGAINST	
Advisory Vote on Executive Compensation (Proposal 3)	Majority of common stock and Series D preferred stock present or represented and voting on the matter, voting together as a single class and on an as-converted basis	No effect	No effect	
Approval of 2013 Stock Incentive Plan (Proposal 4)	Majority of common stock and Series D preferred stock present or represented and voting on the matter, voting together as a single class and on an as-converted basis	No effect	No effect	
Ratification of Selection of Ernst & Young LLP Proposal 5)	Majority of common stock and Series D preferred stock present or represented and voting on the matter, voting together as a single class and on an as-converted basis	No effect	No effect	
Election of Directors (Proposal 6)	Plurality of votes cast by holders of common stock and Series D preferred stock entitled to vote, voting together as a single class and on an as-converted basis	No effect(1)	No effect	

4

Approval of Prior Issuances and Sales to Pillar and its Affiliates (Proposal 7)

Majority of outstanding common stock and Series D preferred stock present or represented and voting on the matter, voting together as a single class and on an as-converted basis

No effect

No effect

Amendments to Certificate of Designations,

Preferences and Rights of Series D Preferred Stock

(Proposals 8(a), 8(b), 8(c) and 8(d))

majority of issued and outstanding common stock and Series D preferred stock entitled to vote and held by such holders, voting together as a single class and on an as-converted basis Majority of issued and outstanding common

Corporation and their respective affiliates) of a

Holders (other than us, Pillar Invest

stock and Series D preferred stock entitled to vote, voting together as a single class and on an AGAINST as-converted basis

Has the same effect as a vote Has the same effect as a vote **AGAINST**

Majority of issued and outstanding Series D preferred stock entitled to vote, voting separately as a series

Amendments to Certificate of Designations, Preferences and Rights of Series E Preferred Stock

(Proposals 9(a) and 9(b))

Majority of issued and outstanding common stock and Series D preferred stock entitled to vote, voting together as a single class and on an AGAINST

as-converted basis

Has the same effect as a vote

Has the same effect as a vote **AGAINST**

Majority of issued and outstanding Series E preferred stock entitled to vote, voting separately as a series

(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. Holders of our Series D preferred stock will be entitled to cast a number of votes equal to the number of whole shares of common stock into which the shares of Series D preferred stock held by such holder are convertible as of the record date (rounded down to the nearest whole share). As of the record date, each share of Series D preferred stock is convertible into 5.5736 shares of common stock. Except where expressly stated otherwise in this proxy statement (see Proposal Nine), holders of our Series E preferred stock are not entitled to vote at the 2013 annual meeting. On any matter set forth in this proxy statement in which the holders of our Series E preferred stock are entitled to vote, holders of our Series E preferred stock will be entitled to one vote for each share of Series E preferred stock held as of the record date

How does the board of directors recommend that I vote?

Our board of directors recommends that you vote as follows:

FOR Proposal One, Proposal Two, Proposal Three, Proposal Four, Proposal Five, Proposal Seven, Proposal Eight and Proposal Nine; and

To elect the three nominees to our board of directors (Proposal Six).

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 Three 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 is also advisory. Our board will carefully consider the outcome of each of these votes.

Will any other business be conducted at the 2013 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 2013 annual meeting. If any other matter properly comes before the 2013 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 2013 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 regular employees, without additional remuneration, may solicit proxies by telephone, facsimile, email, personal interviews and other means. We have requested that 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 2014 annual meeting of stockholders?

If you are interested in submitting a proposal for inclusion in the proxy statement and the proxy card for our 2014 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 March , 2014. 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 2014 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 2014 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.

6

Are annual meeting materials householded?

Some banks, brokers and other nominee record holders may be participating in the practice of householding proxy statements and annual reports. This means that the brokers and nominee record holders send only one copy of this proxy statement and the accompanying 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 make such a request, please call (617) 679-5500 or write to Investor Relations, 167 Sidney Street, Cambridge, Massachusetts 02139 or ir@iderapharma.com. To receive separate copies of our annual report and proxy statement in the future, or to receive only one copy for the household, please contact your bank, broker, or other nominee record holder, or contact us at the above address and phone number.

7

PROPOSAL ONE

APPROVAL OF AMENDMENTS TO OUR RESTATED CERTIFICATE OF INCORPORATION TO DECLASSIFY OUR BOARD OF DIRECTORS

Under our Restated Certificate of Incorporation, our board of directors is currently divided into three classes, with members of each class holding office for staggered three-year terms. We are asking you to approve amendments to our Restated Certificate of Incorporation to (a) declassify our board of directors, (b) provide that our stockholders may remove directors with or without cause following declassification of our board of directors and (c) eliminate the supermajority voting requirement for amending or repealing Article ELEVENTH of our Restated Certificate of Incorporation. The board of directors believes that these changes are advisable and in the best interests of our stockholders. The board of directors has unanimously approved the proposed amendments and declared them to be advisable, and recommends that our stockholders approve the proposed amendments.

If the proposed amendments to our Restated Certificate of Incorporation described in this Proposal One are approved by the stockholders, the declassification of our board of directors would be phased in commencing with the 2013 annual meeting and would result in the classified board of directors being fully phased-out (and all board members standing for annual elections) commencing with our 2015 annual meeting of stockholders. Therefore, the Class III directors would be elected at the 2013 annual meeting for one-year terms, the Class III and Class I directors would stand for election at our 2014 annual meeting of stockholders for one-year terms (with the Class II directors having one year remaining in their term), and beginning with our 2015 annual meeting of stockholders, the board will be completely declassified and all directors will stand for election for one-year terms. If the proposed amendments are not approved in the manner described in this Proposal One, no changes will be made to our Restated Certificate of Incorporation under this Proposal One.

Proposals 1(a), 1(b) and 1(c) all relate to the proposed declassification of our board of directors, but each proposal concerns a different amendment to our Restated Certificate of Incorporation. We are submitting these amendments to our stockholders as separate items so that our stockholders are able to express their views on each amendment separately. The approval of Proposals 1(a) and 1(b) is conditioned upon both items receiving the requisite stockholder vote. The approval of Proposal 1(c) is conditioned on the approval of both Proposals 1(a) and 1(b), but Proposals 1(a) and 1(b) are not conditioned on Proposal 1(c). Therefore:

If Proposals 1(a), 1(b) and 1(c) each receive the requisite stockholder vote, then our Restated Certificate of Incorporation will be amended to reflect all of the revisions set forth in <u>Appendix A</u> to this proxy statement, and a Certificate of Amendment to our Restated Certificate of Incorporation reflecting the amendments will be filed with the Secretary of State of the State of Delaware immediately following the vote and during the 2013 annual meeting.

If Proposals 1(a) and 1(b) each receive the requisite stockholder vote, but Proposal 1(c) does not, then our Restated Certificate of Incorporation will be amended to reflect the corresponding revisions set forth in <u>Appendix A</u> to this proxy statement, and a Certificate of Amendment to our Restated Certificate of Incorporation reflecting the approved amendments will be filed with the Secretary of State of the State of Delaware immediately following the vote and during the 2013 annual meeting.

If either Proposal 1(a) or 1(b) does not receive the requisite stockholder vote (regardless of the outcome of Proposal 1(c)), then no changes will be made to our Restated Certificate of Incorporation under this Proposal One, and our board will continue to be classified.

For each of Proposal 1(a), 1(b) and 1(c), the affirmative vote of at least 75% of the issued and outstanding shares of our common stock and Series D preferred stock entitled to vote, voting together as a single class and on an as-converted basis, is required to amend our Restated Certificate of Incorporation. Our board of directors reserves the right, at any time prior to the effectiveness of the filing of the Certificate of Amendment reflecting the approved amendments, to abandon the proposed amendments.

The following description of the proposed amendments to our Restated Certificate of Incorporation is a summary and is qualified by the full text of the proposed amendments, which are attached to this proxy statement as <u>Appendix A</u>.

Proposal 1(a): Proposed amendment to our Restated Certificate of Incorporation to declassify our board of directors

Restated Certificate of Incorporation sections affected: Sections 2, 4, 5 and 8 of Article ELEVENTH

Our board of directors and our nominating and corporate governance committee regularly review our corporate governance policies and practices. As part of our nominating and corporate governance committee s continuing review, it discussed the potential declassification of the board of directors and moving to annual elections of all directors. In connection with our Series E preferred stock financing, which is described in greater detail in the section titled Summary of November 2011 and November 2012 Preferred Stock Financing Transactions set forth in Proposal Seven set forth elsewhere in this proxy statement and in Transactions with Related Persons set forth elsewhere in this proxy statement, we agreed to submit a proposal to our stockholders at the 2013 annual meeting to, among other things, approve an amendment to our Restated Certificate of Incorporation and bylaws to declassify our board of directors.

In deciding whether to recommend that stockholders vote in favor of this proposal, our nominating and corporate governance committee, as well as the full board of directors, considered the advantages of both a classified and declassified board structure. A classified board can promote continuity and enhance the stability of the board of directors, encourage a long-term perspective of management and reduce a company s vulnerability to coercive takeover tactics. Having experienced directors on the board of directors is important because of the unique demands of overseeing our company, including the need to understand the complexities of our business and our long-term strategy for profitable growth. The directors also considered that many investors and commentators believe that the election of directors is the primary means for stockholders to influence corporate governance policies and hold management accountable for implementing those policies. The directors recognized that many investors believe that a classified board structure reduces the accountability of directors to stockholders because the directors do not face an annual election. The directors determined that the advantages to our stockholders of annual director elections for all directors outweigh the advantages of a classified board. After weighing these and other considerations, our nominating and corporate governance committee determined that moving to annual elections of directors is in the best interests of Idera and our stockholders and recommended to the board of directors that it support the proposal to declassify the board of directors. After deliberation, the board of directors unanimously accepted that recommendation. If this proposed amendment is not approved, no changes will be made to our Restated Certificate of Incorporation under this Proposal One.

This proposed amendment is conditioned on the approval of Proposal 1(b) by the stockholders.

Approval of this Proposal 1(a) will also constitute stockholder approval of conforming changes to Sections 2.3, 2.4, 2.5 and 2.6 of our bylaws, as reflected in <u>Appendix B</u>.

Recommendation of the Board of Directors and Required Vote

Our board of directors believes that the proposed amendment to our Restated Certificate of Incorporation to declassify our board of directors is in the best interests of our company and our stockholders and therefore recommends that the stockholders vote FOR this proposal.

The affirmative vote of the stockholders holding at least 75% of the issued and outstanding shares of our common stock and Series D preferred stock entitled to vote, voting together as a single class and on an as-converted basis, is required for approval of this Proposal 1(a).

9

Proposal 1(b): Proposed amendment to our Restated Certificate of Incorporation to provide that our stockholders may remove our directors with or without cause following declassification of our board of directors

Restated Certificate of Incorporation sections affected: Section 7 of Article ELEVENTH

Delaware corporate law provides that members of a classified board of directors may be removed only for cause, unless otherwise provided in the certificate of incorporation. Our Restated Certificate of Incorporation currently provides that our directors can be removed only for cause by the affirmative vote of at least two-thirds of the shares of our capital stock outstanding and entitled to vote.

If the proposed amendment is approved by our stockholders at the 2013 annual meeting, our Restated Certificate of Incorporation would be amended to provide that, effective immediately after our 2015 annual meeting of stockholders, when our board of directors is no longer classified, directors may be removed with or without cause by the affirmative vote of a majority of our common stock issued and outstanding and entitled to vote, as set forth in <u>Appendix A</u>. Even if this amendment is approved, our directors would continue to be removable only for cause until our 2015 annual meeting of stockholders, at which point our board of directors will no longer be classified. If the proposed amendment is not approved, no changes will be made to our Restated Certificate of Incorporation under this Proposal One.

This proposed amendment is conditioned on the approval of Proposal 1(a) by the stockholders.

Approval of this Proposal 1(b) will also constitute stockholder approval of conforming changes to Section 2.15 of our bylaws, as reflected in Appendix B.

Recommendation of the Board of Directors and Required Vote

Our board of directors believes that the proposed amendment to our Restated Certificate of Incorporation to provide that our stockholders may remove our directors with or without cause by the affirmative vote of a majority of our common stock issued and outstanding and entitled to vote following declassification of our board of directors is in the best interests of our company and our stockholders and therefore recommends that the stockholders vote FOR this proposal.

The affirmative vote of the stockholders holding at least 75% of the issued and outstanding shares of our common stock and Series D preferred stock entitled to vote, voting together as a single class and on an as-converted basis, is required for approval of this Proposal 1(b).

Proposal 1(c): Proposed amendment to our Restated Certificate of Incorporation to eliminate the supermajority voting requirement for amending or repealing Article ELEVENTH of our Restated Certificate of Incorporation

Restated Certificate of Incorporation sections affected: Section 10 of Article ELEVENTH

Our Restated Certificate of Incorporation currently provides that the affirmative vote of at least 75% of the shares of our capital stock issued and outstanding and entitled to vote is required to amend or repeal, or to adopt any provision inconsistent with, Article ELEVENTH of our Restated Certificate of Incorporation. The proposed amendment would eliminate this supermajority voting requirement. This proposed amendment is conditioned on the approval of Proposals 1(a) and 1(b) by the stockholders.

The current supermajority provision in Article ELEVENTH was originally adopted to preserve the classified structure of our board of directors and is, in the board of directors view, no longer necessary if the board of directors is declassified pursuant to stockholder approval of Proposals 1(a) and 1(b).

10

If Proposal 1(c) is approved by the stockholders, and Proposals 1(a) and 1(b) are also approved, the relevant voting requirement to amend or repeal Article ELEVENTH of our Restated Certificate of Incorporation in the future would be a majority of the outstanding stock entitled to vote thereon. If Proposal 1(c) is not approved, or if Proposals 1(a) and 1(b) are not approved, the relevant voting requirement to amend or repeal Article ELEVENTH in the future will remain at least 75% of the shares of our capital stock issued and outstanding and entitled to vote.

Recommendation of the Board of Directors and Required Vote

Our board of directors believes that the proposed amendment to our Restated Certificate of Incorporation to eliminate the supermajority voting requirement for amending or repealing Article ELEVENTH of our Restated Certificate of Incorporation is in the best interests of our company and our stockholders and therefore recommends that the stockholders vote FOR this proposal.

The affirmative vote of the stockholders holding at least 75% of the issued and outstanding shares of our common stock and Series D preferred stock entitled to vote, voting together as a single class and on an as-converted basis, is required for approval of this Proposal 1(c).

11

PROPOSAL TWO

APPROVAL OF AN AMENDMENT TO OUR RESTATED CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK

In May 2013, our board of directors voted to recommend to the stockholders that they approve an amendment to our Restated Certificate of Incorporation to increase the number of authorized shares of our common stock from 140,000,000 shares to 280,000,000 shares. A copy of a Certificate of Amendment to the Restated Certificate of Incorporation setting forth the amendment is attached to this proxy statement as Appendix C. As of May 15, 2013, we had authorized, outstanding or reserved for issuance the following shares of common stock:

45,163,330 shares of common stock outstanding;

1,926 shares of common stock reserved for issuance upon conversion of our Series A convertible preferred stock;

6,266,175 shares of common stock reserved for issuance upon conversion of our Series D preferred stock;

8,484,840 shares of common stock reserved for issuance upon conversion of our Series E preferred stock;

64,056,546 shares of common stock reserved for issuance upon exercise of outstanding warrants;

5,358,395 shares of common stock reserved for issuance upon exercise of outstanding stock options; and

2,642,303 shares of common stock reserved for future issuance under our 2008 Stock Incentive Plan and our 1995 Employee Stock Purchase Plan.

Our board of directors believes that the authorization of the additional shares of common stock is necessary to provide us with the flexibility to issue shares of common stock in connection with possible future financings, joint ventures, acquisitions, stock incentive plans and other general corporate purposes.

If this proposal to amend our Restated Certificate of Incorporation to increase the number of authorized shares of common stock is approved by the stockholders at the 2013 annual meeting, our board of directors will have authority to issue these additional shares of common stock without the necessity of further stockholder action. Holders of shares of our common stock have no preemptive rights with respect to any shares that may be issued in the future.

If this proposal is approved by our stockholders at the 2013 annual meeting, we intend to file the Certificate of Amendment promptly following the 2013 annual meeting reflecting the approved increase in the number of authorized shares of common stock.

Recommendation of the Board of Directors and Required Vote

Our board of directors believes that approval of the amendment to the Restated Certificate of Incorporation as set forth in the Certificate of Amendment attached to this proxy as <u>Appendix C</u> is in the best interests of our company and our stockholders and therefore recommends that stockholders vote FOR the approval of the amendment.

The affirmative vote of the stockholders holding a majority of the issued and outstanding shares of our common stock and Series D preferred stock entitled to vote, voting together as a single class and on an as-converted basis, is required for approval of this Proposal Two.

PROPOSAL THREE

APPROVAL, BY NON-BINDING VOTE, OF EXECUTIVE COMPENSATION

We are providing our stockholders the opportunity to vote to approve, on an advisory, non-binding basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the SEC s rules. This proposal, which is commonly referred to as say-on-pay, is required by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which added Section 14A to the Exchange Act.

Our 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.

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

base salary;

annual cash bonuses;

severance and change in control benefits.

health care, life insurance and other employee benefits; and

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 and 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.

The Executive Compensation section set forth elsewhere in this proxy statement, including Compensation Discussion and Analysis, describes in detail our executive compensation programs and the decisions made by the compensation committee and the board of directors with respect to the fiscal year ended December 31, 2012.

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

RESOLVED, that the compensation paid to the company s named executive officers, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the compensation discussion and analysis, the compensation tables and any related material disclosed in this proxy statement, is hereby approved.

As an advisory vote, this proposal is not binding. The outcome of this advisory vote will not overrule any decision by the Company or our board of directors (or any committee thereof), create or imply any change to our

13

fiduciary duties or the fiduciary duties of our board of directors (or any committee thereof), or create or imply any additional fiduciary duties on us or our board of directors (or any committee thereof). However, our compensation committee and board of directors value the opinions expressed by our stockholders in their vote on this proposal and will consider the outcome of the vote when making future compensation decisions for named executive officers.

Recommendation of the Board of Directors and Required Vote

Our board of directors recommends that stockholders vote to approve the compensation of our named executive officers by voting FOR this proposal.

The affirmative vote of the stockholders holding a majority of the issued and outstanding shares of our common stock and Series D preferred stock present in person or represented by proxy and voting on the matter, voting together as a single class and on an as-converted basis, is required for approval of this Proposal Three.

14

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 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 help us 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 reward our executive officers for meeting certain developmental milestones, such as completing advancements in product candidate development, strategic partnerships or other financial transactions that add to our capital resources or create value for stockholders. We also decline to increase salaries, make bonus awards or issue equity compensation in the event that our corporate performance falls below expectations or developmental milestones are not met.

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 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.

During 2011 and 2012, our compensation committee engaged Radford Surveys + Consulting, or Radford, to provide advice and recommendations regarding the amount and form of executive compensation, equity incentive programs and compensation generally. Radford did not provide any services to our company during 2011 or 2012 other than pursuant to its engagement by the compensation committee.

15

As part of its engagement in November 2010, Radford provided data on executive compensation from a peer group of publicly traded companies developed by the committee with Radford in November 2010. The committee selected these companies at that time in the belief that these companies had business life cycles, growth profiles, 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 peer group, the committee and Radford generally targeted companies ranging from one-third to three times Idera size in terms of number of employees and market capitalization, with lead drug candidates typically in Phase 2 or Phase 3. The companies included in the peer group were:

Achillion Pharmaceuticals, Inc.

ARIAD Pharmaceuticals,

Anadys Pharmaceuticals, Inc. Inc.

ArQule, Inc.

BioCryst Pharmaceuticals,

AVI BioPharma, Inc. Inc.

Celldex Therapeutics, Inc. Cyclacel Pharmaceuticals, Inc. Cytokinetics, Incorporated

CytRx Corp. Dynavax Technologies Corp. GenVec, Inc.

Infinity Pharmaceuticals, Inc. Micromet, Inc. Myrexis, Inc.

Novavax, Inc. Peregrine Pharmaceuticals, Inc. Sangamo BioSciences, Inc.

Synta Pharmaceuticals Corp.

In November 2010, Radford also provided compensation survey data from the Radford Global Life Science Survey, a survey of U.S. biotech companies. Our compensation committee reviews a blend of the peer group and survey data in its determinations regarding executive compensation. We refer to this blended data as the market compensation data.

Our compensation committee considered this blended data in December 2010 in connection with the establishment of base salaries for our named executive officers in 2011 and in December 2011 in connection with its determination of option grants for our named executive officers in December 2011 and January 2012.

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. 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;

consults with an independent compensation consultant;

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.

16

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. 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 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 is responsibility and relies on the chief executive officer is 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, 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 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.

In November 2012, in light of continued uncertainties with respect to our clinical development plan, results of our ongoing clinical trials and our financial condition, the compensation committee determined not to conduct the compensation and performance review for our named executive officers that it generally conducts at the end of the year. Instead, the compensation committee agreed to defer such review until the results of our phase 2 clinical trial of IMO-3100 and our phase 1 clinical trial of IMO-8400 were known and we had sought and obtained additional financing. In May 2013, in light of our continuing focus on preserving our cash resources, the compensation committee determined to not increase the base salaries of our named executive officers for 2013 or pay any cash bonuses to our named executive officers for 2012. However, the compensation committee intends to make equity awards to our employees in recognition of their efforts in 2012 and to date in 2013 and in order to continue to offer incentives for future performance which, among other things, further our goals of executive retention.

17

Elements of Executive Compensation

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

base salary;
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 and 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 entered into a multi-year employment agreement with our chief executive officer, Sudhir Agrawal, D. Phil., in October 2005, which was amended in 2008 to ensure compliance with Section 409A of the Internal Revenue Code of 1986, as amended, or the Code. In August 2011, we entered into an amendment to our employment offer letter with our senior vice president of operations and chief financial officer, Louis J. Arcudi, III, and in December 2011, we entered into an amended and restated employment letter with Mr. Arcudi. These agreements 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 new 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 s role in the achievement of the annual corporate goals, as well as the performance evaluation prepared by our chief executive officer with respect to such executive officer. The compensation committee considers such evaluation as a means of informing the committee s decision as to whether the executive officer s performance was generally consistent with our expectations.

In November 2011, the compensation committee set base salaries for 2012. In light of setbacks during 2011 regarding our research and development programs, our board s adoption of new strategic goals for our company in September 2011 and our cash resources, the committee determined that annual base salaries for the named executive officers would not be increased for 2012 and would remain at 2011 levels, except that Mr. Arcudi s base salary was increased by \$5,000 as a result of his appointment in April 2011 as our senior vice president of

18

operations. In May 2013, the compensation committee determined that the base salaries of our named executive officers would not be increased for 2013 and would remain at 2012 levels.

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 bonus, 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 committee s determination of annual cash bonuses.

The compensation committee did not set performance goals for 2012 given the fluidity of our business plans and in light of the uncertainties with respect to our clinical development plan, results of our ongoing clinical trials and our financial condition. Instead, the compensation committee decided it would assess individual and corporate achievements as part of its annual compensation and performance review at the end of 2012. In May 2013, the compensation committee determined to not pay any cash bonuses to our named executive officers for 2012.

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 interest 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 plan, 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. Equity awards to our named executive officers 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 option awards vest over four years in 16 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.

In November 2011, the compensation committee granted annual option awards to our named executive officers, effective December 5, 2011. In light of setbacks during 2011 regarding our research and development programs and our board s adoption of new strategic goals in September 2011, as well as the committee s determination not to increase salaries for 2012 or grant bonuses for 2011 to our named executive officers, the committee structured these options to retain our named executive officers and to align the interests of our executive officers with the interests of our stockholders in the value creation that could arise beginning in 2012 from the achievement of our new strategic goals. As a result, the committee increased the size of the annual option awards, specifically targeting the 75th percentile of the market compensation data, and linked a portion of the vesting of the option awards to the achievement of specified milestones with the option awards having the following time based vesting and performance vesting components:

25% of the shares subject to the option become exercisable over four years in 16 equal quarterly installments with the first installment vesting February 28, 2012;

25% of the shares subject to the option become exercisable on November 28, 2012;

50% of the shares subject to the option become exercisable upon the achievement of specified performance milestones with 25% of the number of shares corresponding to a particular performance milestone vesting upon achievement of the performance milestone and the balance of such shares vesting in three equal installments on the first, second and third anniversaries of the achievement of such milestone; and

100% of the unexercisable shares subject to the option become exercisable if, upon or within 12 months after a change in control of our company, the named executive officer s employment is terminated by us without cause or the named executive officer terminates his employment for good reason.

The compensation committee adopted this vesting structure in order to address the following components of incentive compensation:

our typical annual long-term incentive grant, vesting quarterly over four years;

a short-term retention grant, vesting in full upon the first anniversary of the grant, which the committee adopted based on the need for executive retention and in recognition that our officers had not received salary increases for 2012 or cash bonuses for 2011; and

a performance grant, vesting based on the achievement of specified performance milestones modeled on our strategic goals adopted by our board in September 2011.

The performance-based portion of the option awards was tied to nine specified performance milestones. These milestones relate to clinical trials and regulatory processes for our lead compounds, business development transactions and corporate financing. Each milestone must be achieved by a specified date ranging from March 31, 2012 to June 30, 2013 in order to be achieved. The committee designed these milestones to be challenging milestones that the committee believed could be reasonably achieved within the specified timing. Each milestone was weighted and assigned a percentage by the committee such that the achievement of a particular milestone will result in the commencement of vesting of that percentage of the shares subject to the performance-based portion of the option. The total weighting of the milestones equals 125% with the effect that a

Table of Contents

named executive officer can vest with respect to all of the shares subject to the performance-based portion of the option even if one or more milestones are not achieved. However, even if milestones with aggregate weighting of more than 100% are achieved, the named executive officer will not be entitled to more than 100% of the shares subject to the performance-based portion of the option.

In determining the size of the option awards, the compensation committee reviewed the market compensation data presented by Radford regarding annual option grants on the basis of percentage ownership (as opposed to market value), specifically targeting the 75th percentile of the market compensation data. The committee also considered corporate and individual performance during 2011, the value of options then held by executive officers and our chief executive officer s recommendations with respect to the awards to be made to the other executive officers. On this basis, the committee granted options to each of our named executive officer, effective December 2011, including an option to Dr. Agrawal to purchase 500,000 shares. In addition to these options, the committee granted Dr. Agrawal a similar performance option in January 2012 to purchase 35,000 shares on the same terms.

As a result of its deferral of its annual compensation and performance review, the compensation committee did not grant any annual options awards or other equity awards for 2012.

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 2012, 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 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

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

Our board adopted this policy for our employees in recognition of the importance of stock options to the compensation of employees and in order that our employees get the full benefit of the options held by them if he or she retires 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. In 2012, Dr. Sullivan received reimbursement for local housing expenses because Dr. Sullivan maintains a primary residence outside of a reasonable daily commuting range to our headquarters.

21

Table of Contents

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. Due to his stock ownership, Dr. Agrawal is not eligible to participate in the employee stock purchase plan. None of our named executive officers participated in the employee stock purchase plan during 2012.

Severance and Change-in-Control Benefits

We currently have an employment agreement with Dr. Agrawal and an employment letter agreement with Mr. Arcudi under which we agreed to provide 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.

In December 2011, we entered into an amended and restated employment letter with Mr. Arcudi. In connection with this amendment and restatement, we increased the period of time following termination of employment for which he is entitled to receive severance and healthcare, disability and life insurance benefits from three months to 12 months in connection with a termination by us without cause at any time, and provided severance and healthcare, disability and life insurance benefits for 12 months in connection with termination by Mr. Arcudi for good reason upon or within 12 months after a change of control. The committee agreed to these provisions based in part on market compensation data from Radford.

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 our independent compensation consultant, 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 per person paid to our chief executive officer and the three other officers (other than our chief executive officer and chief financial officer) whose compensation is required to be disclosed under the Securities Exchange Act of 1934, as amended, by reason of being among our three other most highly compensated officers. 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 attributable to awards granted under our plans 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.

Sudhir Agrawal, D. Phil.

We are a party to an employment agreement, as amended, with Dr. Agrawal, our chairman, president and chief executive officer. The agreement had an initial three-year term that is automatically extended for an

22

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, 2012, the term was extended from October 19, 2014 to October 19, 2015.

Under the agreement, Dr. Agrawal is currently entitled to receive an annual base salary of \$549,000 or such higher amount as our compensation committee or our board of directors may determine. In addition, under the agreement, Dr. Agrawal is eligible to receive an annual bonus in an amount equal to between 20% and 70% 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, 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.

If required by Section 409A of the Code, the payments we are required to make to Dr. Agrawal for the first six months following termination of his employment under his agreement will be made as a lump sum on the date that is six months and one day following such termination.

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

Table of Contents

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.

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. 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 twelve months following such termination payable in accordance with our then current payroll practices; and

continue to provide Mr. Arcudi with healthcare, disability and life insurance benefits for twelve 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.

If required by Section 409A of the Code, the payments we are required to make to Mr. Arcudi in the first six months following the termination of his employment under his agreement will be made as a lump sum on the date that is six months and one day following such termination.

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

Eve E. Slater

24

Summary Compensation Table

The table below summarizes compensation paid to or earned by our named executive officers. Our named executive officers have no stock awards, defined benefit pension or non-qualified compensation to report for 2012, 2011 and 2010.

Summary Compensation Table for Fiscal Year 2012

Name and		Option Awards		Non-Equity Plan Compensation		All Other Compensation			
Principal Position	Year	Salary (\$)	(\$)(1)		(2)		(\$)(3)	7	Total (\$)
Sudhir Agrawal, D. Phil.,	2012	\$ 549,000	\$ 24,019	\$		\$	75,447	\$	648,466
Chairman, President and	2011	\$ 549,000	\$ 334,500	\$		\$	30,606	\$	914,156
Chief Executive Officer	2010	\$ 530,000	\$ 362,795	\$	260,000	\$	29,710	\$ 1	,182,505
Louis J. Arcudi, III	2012	\$ 315,000	\$	\$		\$	43,523	\$	358,523
Senior Vice President of Operations,	2011	\$ 310,000	\$ 133,820	\$		\$	30,135	\$	473,955
Chief Financial Officer, Treasurer and	2010	\$ 290,000	\$ 148,476	\$	55,000	\$	29,092	\$	522,568
Secretary									
Timothy M. Sullivan, Ph. D.	2012	\$ 299,000	\$	\$		\$	49,877	\$	348,877
Vice President, Development Programs	2011	\$ 299,000	\$ 100,365	\$		\$	46,978	\$	446,343
and Alliance Management	2010	\$ 289,120	\$ 113,247	\$	51,000	\$	45,893	\$	499,260
Robert D. Arbeit, M.D.	2012	\$ 300,000	\$	\$		\$	11,968	\$	311,968
Vice President,	2011	\$ 300,000	\$ 100,365	\$		\$	11,913	\$	412,278
Clinical Development	2010	\$ 290,100	\$ 112,634	\$	51,000	\$	11,766	\$	465,500