

IDERA PHARMACEUTICALS, INC.

Form DEF 14A

April 30, 2007

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OMB APPROVAL

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the Securities
Exchange Act of 1934 (Amendment No.)

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

Check the appropriate box:

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

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):

- 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:

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o Fee paid previously with preliminary materials.

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

1) Amount Previously Paid:

2) Form, Schedule or Registration Statement No.:

3) Filing Party:

4) Date Filed:

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**IDERA PHARMACEUTICALS, INC.
345 Vassar Street
Cambridge, Massachusetts 02139**

NOTICE OF 2007 ANNUAL MEETING OF STOCKHOLDERS

Date and Time: June 13, 2007 at 10:00 a.m., local time

Place: Hotel @ MIT
20 Sidney Street
Cambridge, Massachusetts 02139

Items of Business: At the meeting, we will ask our stockholders to:

(1) Elect three Class III Directors to our board of directors for terms to expire at the 2010 annual meeting of stockholders;

(2) Approve an amendment to our 2005 Stock Incentive Plan to increase the number of shares of common stock authorized for issuance under the plan from 1,125,000 shares to 2,625,000 shares; and

(3) Transact any other business as may properly come before the meeting or any postponement or adjournment of the meeting.

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

Record Date: You may vote if you were a stockholder of record at the close of business on April 17, 2007.

Proxy Voting: It is important that your shares be represented and voted at the meeting. Whether or not you plan to attend the 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 internet. You may revoke your proxy at any time before its exercise at the meeting.

By Order of the Board of Directors,

/s/ ROBERT G. ANDERSEN
Robert G. Andersen
Secretary

Cambridge, Massachusetts
April 30, 2007

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**IDERA PHARMACEUTICALS, INC.
345 Vassar Street
Cambridge, Massachusetts 02139**

PROXY STATEMENT

For our Annual Meeting of Stockholders to be held on June 13, 2007

Idera Pharmaceuticals, Inc., a Delaware corporation, which is referred to as we or us in this document, is sending you this proxy statement and the enclosed proxy card because our board of directors is soliciting your proxy to vote at our 2007 annual meeting of stockholders. The annual meeting will be held on Wednesday, June 13, 2007, at 10:00 a.m., local time, at the Hotel @ MIT, 20 Sidney Street, Cambridge, Massachusetts 02139. If the annual meeting is adjourned for any reason, then the proxies may be used at any adjournments of the annual meeting.

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

We are mailing this proxy statement and the enclosed proxy card to stockholders on or about May 8, 2007.

In this mailing, we are also including copies of our annual report to stockholders for the year ended December 31, 2006. Our annual report on Form 10-K for the year ended December 31, 2006, as filed with the Securities and Exchange Commission, or SEC, and including our audited financial statements, is included in our annual report to stockholders in this mailing and is also available free of charge on the Investor Center section of our website at www.iderapharma.com or through the SEC's electronic data system at www.sec.gov. **To request a printed copy of our Form 10-K, which we will provide to you free of charge, either write to Investor Relations, Idera Pharmaceuticals, Inc., 345 Vassar Street, Cambridge, Massachusetts 02139, or after June 2007 to 167 Sidney Street, Cambridge, Massachusetts, 02139, or email Investor Relations at ir@iderapharma.com.**

INFORMATION ABOUT THE ANNUAL MEETING

Who may vote?

Holders of record of our common stock at the close of business on April 17, 2007, the record date for the meeting, are entitled to one vote per share on each matter properly brought before the meeting. As of the close of business on April 17, 2007, we had 21,212,773 shares of our common stock outstanding.

A list of registered stockholders entitled to vote will be available at the meeting. In addition, you may contact our Secretary, Robert G. Andersen, at our address set forth above, to make arrangements to review a copy of the stockholder list at our offices, for any purpose germane to the meeting, between the hours of 8:30 A.M. and 5:00 P.M., local time, on any business day from June 3, 2007 up to the time of the meeting.

How may I vote my shares if I am the 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, Mellon Investor Services LLC 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 in the United States.

You may vote by telephone. To vote by telephone through services provided by Mellon Investor Services LLC, call 1-866-540-5760, 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 by internet. To vote over the Internet through services provided by Mellon Investor Services LLC, please go to the following website: <http://www.proxyvoting.com/idp> and follow the instructions at that

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site for submitting your proxy card. If you vote on the internet, you do not need to complete and mail your proxy card.

You may vote in person. If you attend the annual meeting, you may vote by delivering your completed proxy card in person or you may vote by completing a ballot at the meeting. Ballots will be available at the meeting.

Your proxy will only be valid if you complete and return or otherwise submit the proxy card on or before the annual meeting. The persons named in the proxy card will vote the shares you own in accordance with your instructions on your proxy card. If you return the proxy card, 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. Our board of directors recommends that you vote FOR each of the proposals.

The proxy card enclosed with this proxy statement states the number of shares you are entitled to vote if you are a stockholder of record.

How may 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 your bank or brokerage firm provides you. Many banks and brokerage firms may solicit voting instructions over the internet or by telephone.

If you do not give instructions to your bank or brokerage firm, it will still be able to vote your shares with respect to certain discretionary items, but will not be allowed to vote your shares with respect to certain non-discretionary items. The election of directors (proposal one) is considered a discretionary item. However, the approval of the amendment to our 2005 Stock Incentive Plan (proposal two) is a non-discretionary item. Accordingly, if you do not give instructions to your bank or brokerage firm with respect to proposal two, or if your bank or brokerage firm does not exercise its discretionary authority with respect to proposal one, your shares will be treated as broker non-votes on that particular matter. Broker non-votes are shares with respect to which a bank or brokerage firm does not receive voting instructions from the beneficial holder or does not have or exercise discretionary authority in voting on a proposal.

Regardless of whether your shares are held in street name, you are welcome to attend the meeting. If your shares are held in street name, you may not vote your shares in person at the 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 meeting to obtain the necessary proxy from the holder of record.

How may I change my vote?

If you are a stockholder of record, even if you complete and return a proxy card, you may revoke it at any time before it is exercised by taking one of the following actions:

send written notice to our Secretary, Robert G. Andersen, at our address above, stating that you wish to revoke your proxy;

send us another signed proxy with a later date; or

attend the 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 your vote.

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What constitutes a quorum?

In order for business to be conducted at the meeting, a quorum must be present. A quorum consists of the holders of at least 10,606,387 shares, representing a majority of the shares of common stock issued, outstanding and entitled to vote at the meeting.

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

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

What vote is required to approve each matter?

Proposal One Election of Directors Directors will be elected by a plurality of the votes cast by our stockholders entitled to vote on the election. In other words, the three nominees for director receiving the highest number of votes FOR election will be elected as directors, regardless of whether any of those numbers represents a majority of the votes cast.

You may vote FOR all of the nominees, WITHHOLD your vote from all of the nominees or WITHHOLD your vote from any one or more of the nominees.

Proposal Two Approval of the Amendment to our 2005 Stock Incentive Plan The affirmative vote of the holders of a majority of the shares of common stock present or represented and voting on the matter is needed to approve the amendment to our 2005 Stock Incentive Plan.

How will votes be counted?

Each share of common stock will be counted as one vote. Shares will not be voted in favor of a matter, and will not be counted as voting on a matter if the holder of the shares either withholds authority in the proxy to vote for a particular director nominee or nominees, or abstains from voting on a particular matter, or if the shares are broker non-votes. As a result, withheld shares, abstentions and broker non-votes will have no effect on the outcome of voting on any of the proposals.

How does the board of directors recommend that I vote?

Our board of directors recommends that you vote:

FOR Proposal One elect our three nominees to the board of directors

FOR Proposal Two approve the amendment to our 2005 Stock Incentive Plan

Will any other business be conducted at the annual meeting?

Our board of directors does not know of any other business to be conducted or matters to be voted upon at the meeting. Under our by-laws, the deadline for stockholders to notify us of any proposals or nominations for director to be presented for action at the annual meeting has passed. If any other matter properly comes before the 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, at the meeting with respect to that matter.

Who pays for the solicitation of proxies?

We 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 brokerage houses, custodians, nominees and fiduciaries to 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.

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How and when may I submit a proposal for the 2008 annual meeting?

If you are interested in submitting a proposal for inclusion in the proxy statement and proxy card for our 2008 annual meeting, you need to follow the procedures outlined in Rule 14a-8 of the Securities Exchange Act of 1934. We must receive your proposal intended for inclusion in the proxy statement at our new principal executive offices, 167 Sidney Street, Cambridge, Massachusetts 02139, Attention: Secretary, no later than January 1, 2008. 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 2008 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 and the name of the stockholder proposing such business. 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 2008 annual meeting. Notwithstanding the foregoing, if we provide less than 70 days notice or prior public disclosure of the date of the 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 meeting was mailed or such public disclosure was made, whichever occurs first. If a stockholder who wished to present a proposal fails to notify us by this date, the proxies that management solicits for that meeting will have discretionary authority to vote on the stockholder's proposal if it is otherwise properly brought before that meeting. If a stockholder makes timely notification, the proxies may still exercise discretionary authority to vote on stockholder proposals under circumstances consistent with the SEC's rules.

Are annual meeting materials householded?

Some banks, 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, 345 Vassar Street, Cambridge, Massachusetts 02139, or after June 2007 to 167 Sidney Street, Cambridge, Massachusetts 02139. 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.

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PROPOSAL 1 ELECTION OF DIRECTORS

Our board of directors is divided into three classes and currently consists of two Class I Directors, C. Keith Hartley and William S. Reardon, two Class II Directors, Dr. Robert W. Karr and Dr. James B. Wyngaarden, and three Class III Directors, Dr. Sudhir Agrawal, Youssef El Zein and Dr. Alison Taunton-Rigby. The terms of the three classes are staggered so that one class is elected each year. Members of each class are elected for three-year terms. The Class I, Class II and Class III directors were elected to serve until the annual meeting of stockholders to be held in 2008, 2009 and 2007, respectively, and until their respective successors are elected and qualified.

Our board of directors, on the recommendation of our nominating and corporate governance committee, has nominated Dr. Sudhir Agrawal, Youssef El Zein and Dr. Alison Taunton-Rigby for election as Class III Directors. The persons named in the enclosed proxy card will vote to elect Dr. Sudhir Agrawal, Youssef El Zein and Dr. Alison Taunton-Rigby as Class III Directors unless you withhold authority to vote for the election of any or all nominees by marking the proxy to that effect. The proxy card may not be voted for more than three directors. Each Class III Director will be elected to hold office until the 2010 annual meeting of stockholders and until his or her successor is elected and qualified. Each of the nominees is presently a director, and each has indicated a willingness to serve as a director, if elected. If a nominee becomes unable or unwilling to serve, however, the persons acting under the proxy may vote for substitute nominees selected by the board of directors.

No director or executive officer is related by blood, marriage or adoption to any other director or executive officer. No director or officer, or any associate of any such director or officer, is a party adverse to us, or has a material interest adverse to us, in any legal proceeding. No director or executive officer has any interest, direct or indirect, by security holdings or otherwise, in any matter to be acted upon at the annual meeting, other than election to office.

Set forth below are the names of each of the nominees for election as Class III Directors, each Class I Director and each Class II Director, the year in which each first became a director, their ages as of January 31, 2007, their positions and offices with our company, their principal occupations and business experience during at least the past five years and the names of other public companies for which they serve as a director.

Our board of directors recommends that you vote FOR the election of Dr. Sudhir Agrawal, Youssef El Zein and Dr. Alison Taunton-Rigby as Class III Directors.

Nominees for Class III Directors Terms to Expire in 2010

Dr. Sudhir Agrawal

Director since 1993

Dr. Sudhir Agrawal, age 53, is our Chief Executive Officer and Chief Scientific Officer. He joined us in 1990 and has served as our Chief Scientific Officer since January 1993, our Senior Vice President of Discovery from March 1994 to February 2000, our President from February 2000 to October 2005, a director since March 1993 and our Chief Executive Officer since August 2004. Prior to his appointment as Chief Scientific Officer, he served as our Principal Research Scientist from February 1990 to January 1993 and as our Vice President of Discovery from December 1991 to January 1993. He served as Acting Chief Executive Officer from February 2000 until September 2001. Prior to joining us, Dr. Agrawal served as a Foundation Scholar at the Worcester Foundation for Experimental Biology from 1987 through 1991 and at the Medical Research Council's Laboratory of Molecular Biology in Cambridge, England from 1985 to 1986. He has authored more than 260 research papers and reviews. He is a member of the editorial board of several scientific journals. Dr. Agrawal is co-author of more than 300 patents and patent applications worldwide.

Youssef El Zein

Director since 1992

Youssef El Zein, age 58, has been Vice Chairman of our board of directors since February 1997. Mr. El Zein has been Chairman and Chief Executive Officer of Pillar Investment Limited, a private investment and management consulting firm, since 1990. Mr. El Zein is also Managing Director of Optima Life Sciences Ltd., a biotechnology investment fund.

Table of Contents**Dr. Alison Taunton-Rigby****Director since 2004**

Dr. Alison Taunton-Rigby, age 62, has been President and Chief Executive Officer of RiboNovix, Inc., a privately held anti-infectives company, since February 2003. Prior to founding RiboNovix, Dr. Taunton-Rigby was President and Chief Executive Officer of several companies including CMT, Inc., a private medical device company, from 2001 to 2003, Aquila Biopharmaceuticals, Inc., a public biopharmaceutical company, from 1996 to 2000, Cambridge Biotech Corporation, a public biotechnology company, from 1995 to 1996, and Mitotix, Inc., a private biotechnology company, from 1993 to 1994. Previous to these positions, she held senior management positions at several other biotechnology companies including Genzyme Corporation and Biogen. Dr. Taunton-Rigby is a director of RiverSource Funds, a mutual fund complex, Healthways, Inc., a public healthcare services company, and Abt Associates Inc., a research and consulting firm. In June 2002, Dr. Taunton-Rigby was awarded the OBE (Officer of the Order of the British Empire) by Queen Elizabeth II in recognition of her work as a leader in the research, development and promotion of biotechnology.

Continuing Members of the Board of Directors**Class I Directors Terms to Expire in 2008****C. Keith Hartley****Director since 2000**

C. Keith Hartley, age 64, has been President of Hartley Capital Advisors, a financial consulting firm, since June 2000. Mr. Hartley was Managing Partner of Forum Capital Markets LLC, an investment banking firm, from August 1995 to May 2000. Mr. Hartley also serves as a director of Universal Display Corporation, a developer of flat panel displays.

William S. Reardon, CPA**Director since 2002**

William S. Reardon, age 60, was an audit partner at PricewaterhouseCoopers LLP, where he led the Life Science Industry Practice for New England and the Eastern United States from 1986 until his retirement from the firm in July 2002. Mr. Reardon served on the Board of the Emerging Companies Section of the Biotechnology Industry Organization from June 1998 to June 2000 and the board of directors of the Massachusetts Biotechnology Council from April 2000 to April 2002. He also serves as a director of Oscient Pharmaceuticals Corporation (formerly Genome Therapeutics Corp.), a pharmaceutical company, and Synta Pharmaceuticals, Inc., a biopharmaceutical company.

Class II Directors Terms to Expire in 2009**Dr. Robert W. Karr****Director since 2005**

Dr. Robert W. Karr, age 58, is our President. He was appointed a member of our Board of Directors in June 2005 and became our President in December 2005. From June 2000 through December 2004, Dr. Karr was a senior executive for Global Research & Development for Pfizer, Inc., a pharmaceutical company, where he served as Senior Vice President, Strategic Management from 2003 to 2004 and Vice President of Strategic Management from 2000 to 2003. Prior to its merger with Pfizer, Dr. Karr served as Vice President, Research & Development Strategy for Warner-Lambert Company, a pharmaceutical company. He currently serves on the Board of Directors of GTx, Inc., a biotechnology company. Dr. Karr completed his internship and residency in internal medicine at Washington University School of Medicine and served as a faculty member at both the University of Iowa College of Medicine and Washington University School of Medicine.

Dr. James B. Wyngaarden

Director since 1990

Dr. James B. Wyngaarden, age 82, has been Chairman of our board of directors since February 2000 and was Vice Chairman from February 1997 to February 2000. Dr. Wyngaarden co-founded the Washington Advisory Group LLC, a consulting firm, in 1996 and remained a principal until January 2002. He was Senior Associate Dean, International Affairs at the University of Pennsylvania Medical School from 1995 to 1997. Dr. Wyngaarden was Foreign Secretary of the National Academy of Sciences and the Institute of Medicine from 1990 to 1994. He was Director of the Human Genome Organization from 1990 to 1991 and a council member from 1990 to 1993.

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Dr. Wyngaarden was Director of the National Institutes of Health from 1982 to 1989, and Associate Director for Life Sciences, Office of Science and Technology Policy in the Executive Office of the President, the White House, from 1989 to 1990. He is also a member of the board of directors of Genaera Corporation, a biopharmaceutical company, and the author of approximately 250 scientific publications.

PROPOSAL 2 AMENDMENT TO 2005 STOCK INCENTIVE PLAN

In April 2007, on the recommendation of our compensation committee, our board of directors voted to amend our 2005 Stock Incentive Plan to increase the number of shares of common stock available for issuance from 1,125,000 shares to 2,625,000 shares, subject to stockholder approval at the annual meeting.

Our stockholders originally approved the adoption of the 2005 Stock Incentive Plan in June 2005 and increased the authorization of shares available for issuance under the plan in June 2006. As of March 31, 2007, options to purchase 1,039,656 shares of our common stock were outstanding under the plan and options to purchase 1,171 shares of our common stock under the plan had been exercised. As a result, we only have 84,173 shares available for future grant under the 2005 Stock Incentive Plan as of March 31, 2007. Other than our 1995 Director Stock Option Plan, which provides for automatic grants to our directors but does not permit grants to employees, we have no other stock incentive plans under which we may grant stock options or other stock-based awards.

Our board of directors believes that our future success depends, in large part, upon the ability to maintain a competitive position in attracting, retaining and motivating key personnel. Accordingly, our board of directors believes that increasing the number of shares available for issuance pursuant to the 2005 Stock Incentive Plan is in our best interest and the best interests of our stockholders. **Our board of directors recommends a vote FOR the amendment to increase the number of shares available for issuance pursuant to the 2005 Stock Incentive Plan by an additional 1,500,000 shares.**

Description of the 2005 Stock Incentive Plan

The following is a brief summary of the 2005 Stock Incentive Plan. References to our board of directors throughout this summary also refer to any committee or officer to which our board of directors has delegated authority with respect to the 2005 Stock Incentive Plan.

Types of Awards

The 2005 Stock Incentive Plan provides for the grant of incentive stock options intended to qualify under Section 422 of the Internal Revenue Code, non-statutory stock options, stock appreciation rights, restricted stock, restricted stock units and other stock-based awards as described below, referred to collectively as awards. We refer to the Internal Revenue Code as the Code.

Incentive Stock Options and Non-statutory Stock Options. Option recipients receive the right to purchase a specified number of shares of common stock at a specified option price and subject to such other terms and conditions as are specified in connection with the option grant. Options may be granted at an exercise price that may be less than, equal to or greater than the fair market value of the common stock on the date of grant. Under present law, however, incentive stock options and options intended to qualify as performance-based compensation under Section 162(m) of the Code may not be granted at an exercise price less than 100% of the fair market value of the common stock on the date of grant (or less than 110% of the fair market value in the case of incentive stock options granted to option recipients holding more than 10% of the voting power of our company). The 2005 Stock Incentive Plan permits the following forms of payment of the exercise price of options:

payment by cash, check, wire transfer or in connection with a cashless exercise through a broker,
subject to certain conditions, surrendering shares of common stock to us,
subject to certain conditions, delivery of a promissory note to us,

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any other lawful means, or

any combination of these forms of payment.

Stock Appreciation Rights. A stock appreciation right, or SAR, is an award entitling the holder, upon exercise, to receive an amount in common stock determined by reference to appreciation, from and after the date of grant, in the fair market value of a share of common stock. SARs may be granted independently or in tandem with an option.

Restricted Stock Awards. Restricted stock awards entitle recipients to acquire shares of common stock, subject to our right to repurchase all or part of such shares from the recipient in the event that the conditions specified in the applicable award are not satisfied prior to the end of the applicable restriction period established for such award.

Restricted Stock Unit Awards. Restricted stock unit awards entitle the recipient to receive shares of common stock to be delivered at the time such shares vest pursuant to the terms and conditions established by the board of directors.

Other Stock-Based Awards. Under the 2005 Stock Incentive Plan, our board of directors has the right to grant other awards based upon the common stock having such terms and conditions as our board of directors may determine, including the grant of shares based upon certain conditions, the grant of awards that are valued in whole or in part by reference to, or otherwise based on, shares of common stock, and the grant of awards entitling recipients to receive shares of common stock to be delivered in the future.

Performance Conditions. A committee of our board of directors, all of the members of which are outside directors as defined in Section 162(m) of the Code, may determine, at the time of grant, that a restricted stock award, restricted stock unit award or other stock-based award granted under the 2005 Stock Incentive Plan will vest solely upon the achievement of specified performance criteria designed to qualify for deduction under Section 162(m) of the Code. The performance criteria for each such award will be based on one or more of the following measures:

earnings per share,

return on average equity or average assets with respect to a pre-determined peer group,

earnings,

earnings growth,

revenues,

expenses,

stock price,

market share,

return on sales, assets, equity or investment,

regulatory compliance,

achievement of balance sheet or income statement objectives,

total shareholder return,

net operating profit after tax,

pre-tax or after-tax income,

cash flow,

achievement of research, development, clinical or regulatory milestones,

product sales and

business development activities.

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These performance measures may be absolute in their terms or measured against or in relationship to other companies comparably, similarly or otherwise situated. Such performance goals may be adjusted to exclude any one or more of

extraordinary items,

gains or losses on the dispositions of discontinued operations,

the cumulative effects of changes in accounting principles,

the write-down of any asset, and

charges for restructuring and rationalization programs.

Such performance goals:

may vary by recipient and may be different for different awards;

may be particular to a recipient or the department, branch, line of business, subsidiary or other unit in which the participant works and may cover such period as may be specified by the board committee; and

will be set by the board committee within the time period prescribed by, and will otherwise comply with the requirements of, Section 162(m).

Transferability of Awards

Except as our board of directors may otherwise determine or provide in an award, awards may not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an incentive stock option, pursuant to a qualified domestic relations order. During the life of the recipient, awards are exercisable only by the recipient.

Eligibility to Receive Awards

Our employees, officers, directors, consultants and advisors are eligible to be granted awards under the 2005 Stock Incentive Plan. Under present law, however, incentive stock options may only be granted to our employees.

The maximum number of shares with respect to which awards may be granted to any one recipient under the 2005 Stock Incentive Plan may not exceed 125,000 shares per calendar year. For purposes of this limit, the combination of an option in tandem with stock appreciation rights is treated as a single award. The maximum number of shares with respect to which restricted stock awards and other stock unit awards that require no purchase or vest on the basis of the passage of time alone that may be granted is 62,500.

Plan Benefits

As of March 31, 2007, approximately 40 persons were eligible to receive awards under the 2005 Stock Incentive Plan, including our executive officers and directors. Other than automatic grants of options to directors pursuant to our director compensation program, which is described under [Director Compensation](#), the granting of awards under the 2005 Stock Incentive Plan is discretionary, and we cannot now determine the number or type of awards to be granted

in the future to any particular person or group. On April 17, 2007, the last reported sale price of our common stock on the American Stock Exchange was \$8.95.

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The table below sets forth information regarding options we have granted under the 2005 Stock Incentive Plan since its adoption through March 31, 2007:

Name and Position	Number of Securities Underlying Options Granted	Weighted Average Per Share Exercise Price
Sudhir Agrawal, D. Phil. Chief Executive Officer and Chief Scientific Officer	162,500	\$ 4.90
Robert G. Andersen Chief Financial Officer and Vice President, Operations	55,000	\$ 4.71
Robert W. Karr, M.D. President	250,000	\$ 4.95
Timothy M. Sullivan, Ph.D. Vice President, Development Programs	32,500	\$ 4.77
All current executive officers as a group	500,000	\$ 4.90
All current directors who are not executive officers as a group		
All employees and consultants who are not executive officers as a group	599,875	\$ 5.04

Administration

Our board of directors administers the 2005 Stock Incentive Plan. Our board of directors has the authority to adopt, amend and repeal the administrative rules, guidelines and practices relating to the 2005 Stock Incentive Plan and to interpret the provisions of the 2005 Stock Incentive Plan. Pursuant to the terms of the 2005 Stock Incentive Plan, our board of directors may delegate authority under the 2005 Stock Incentive Plan to one or more committees or subcommittees of our board of directors or to one or more of our officers. Our board of directors has authorized the compensation committee to administer certain aspects of the 2005 Stock Incentive Plan, including the granting of awards to executive officers.

Subject to any applicable limitations contained in the 2005 Stock Incentive Plan, our board of directors, the compensation committee, or any other committee or officer to whom our board of directors delegates authority, as the case may be, selects the recipients of awards and determines

the number of shares of common stock covered by options and the dates upon which such options become exercisable,

the exercise price of options,

the duration of options, and

the number of shares of common stock subject to any stock appreciation right, restricted stock award, restricted stock unit award or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price.

No option granted under the 2005 Stock Incentive Plan will contain any provision entitling the recipient to the automatic grant of additional options in connection with any exercise of the original option.

Our board of directors is required to make appropriate adjustments in connection with the 2005 Stock Incentive Plan and any outstanding awards to reflect stock splits, stock dividends, recapitalizations, spin-offs and other similar changes in capitalization.

The 2005 Stock Incentive Plan also contains provisions addressing the consequences of any reorganization event, which is defined as:

any merger or consolidation with or into another entity as a result of which all of our common stock is converted into or exchanged for the right to receive cash, securities or other property, or is cancelled;

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any exchange of all of our common stock for cash, securities or other property pursuant to a share exchange transaction; or

any liquidation or dissolution of our company.

In connection with a reorganization event, our board of directors or the compensation committee will take any one or more of the following actions as to all or any outstanding awards on such terms as our board or the committee determines:

provide that awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof);

upon written notice, provide that all unexercised options or other unexercised awards will become exercisable in full and will terminate immediately prior to the consummation of such reorganization event unless exercised within a specified period following the date of such notice;

provide that outstanding awards will become realizable or deliverable, or restrictions applicable to an award will lapse, in whole or in part prior to or upon such reorganization event;

in the event of a reorganization event under the terms of which holders of common stock will receive upon consummation thereof a cash payment for each share surrendered in the reorganization event (the acquisition price), make or provide for a cash payment to an award holder equal to (A) the acquisition price times the number of shares of common stock subject to the holder's awards (to the extent the exercise price does not exceed the acquisition price) minus (B) the aggregate exercise price of all the holder's outstanding awards, in exchange for the termination of such awards;

provide that, in connection with our liquidation or dissolution, awards will convert into the right to receive liquidation proceeds (if applicable, net of the exercise price thereof) and

any combination of the foregoing.

Our board of directors or our compensation committee may at any time provide that any award will become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

If any award expires or is terminated, surrendered, canceled or forfeited, the unused shares of common stock covered by such award will again be available for grant under the 2005 Stock Incentive Plan, subject, however, in the case of incentive stock options, to any limitations under the Code.

Substitute Options

In connection with our merger or consolidation with another entity or our acquisition of the property or stock of another entity, our board of directors may grant options in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute options may be granted on such terms, as our board of directors deems appropriate in the circumstances, notwithstanding any limitations on options contained in the 2005 Stock Incentive Plan. Substitute options will not count against the 2005 Stock Incentive Plan's overall share limit, except as may be required by the Code.

Provisions for Foreign Participants

The board of directors or the compensation committee may modify awards to participants who are foreign nationals or employed outside the United States or establish subplans or procedures under the 2005 Stock Incentive Plan to recognize differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters.

Amendment or Termination

No award may be made under the 2005 Stock Incentive Plan after April 15, 2015, but awards previously granted may extend beyond that date. Our board of directors may at any time amend, suspend or terminate the 2005

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Stock Incentive Plan; provided that, to the extent determined by our board of directors, no amendment requiring stockholder approval under any applicable legal, regulatory or listing requirement will become effective until such stockholder approval is obtained. No award will be made that is conditioned upon stockholder approval of any amendment to the plan.

Federal Income Tax Consequences

The following is a summary of the United States federal income tax consequences that generally will arise with respect to awards granted under the 2005 Stock Incentive Plan. This summary is based on the federal tax laws in effect as of the date of this proxy statement. In addition, this summary assumes that all awards are exempt from, or comply with, the rules under Section 409A of the Code regarding nonqualified deferred compensation. The plan provides that no award will provide for deferral of compensation that does not comply with Section 409A of the Code, unless the board, at the time of grant, specifically provides that the award is not intended to comply with Section 409A. Changes to these laws could alter the tax consequences described below.

Incentive Stock Options

A participant will not have income upon the grant of an incentive stock option. Also, except as described below, a participant will not have income upon exercise of an incentive stock option if the participant has been our employee at all times beginning with the option grant date and ending three months before the date the participant exercises the option. If the participant has not been so employed during that time, then the participant will be taxed as described below under Non-statutory Stock Options. The exercise of an incentive stock option may subject the participant to the alternative minimum tax.

A participant will have income upon the sale of the stock acquired under an incentive stock option at a profit (if sales proceeds exceed the sum of the exercise price). The type of income will depend on when the participant sells the stock. If a participant sells the stock more than two years after the option was granted and more than one year after the option was exercised, then all of the profit will be long-term capital gain. If a participant sells the stock prior to satisfying these waiting periods, then the participant will have engaged in a disqualifying disposition and a portion of the profit will be ordinary income and a portion may be capital gain. This capital gain will be long-term if the participant has held the stock for more than one year and otherwise will be short-term. If a participant sells the stock at a loss (sales proceeds are less than the exercise price), then the loss will be a capital loss. This capital loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Non-statutory Stock Options

A participant will not have income upon the grant of a non-statutory stock option. A participant will have compensation income upon the exercise of a non-statutory stock option equal to the value of the stock on the day the participant exercised the option less the exercise price. Upon sale of the stock, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the day the option was exercised. This capital gain or loss will be long-term if the participant has held the stock for more than one year and otherwise will be short-term.

Stock Appreciation Rights

A participant will not have income upon the grant of a stock appreciation right. A participant generally will recognize compensation income upon the exercise of a SAR equal to the amount of the cash and the fair market value of any stock received. Upon the sale of the stock, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the day the SAR was exercised. This capital gain or loss will be

long-term if the participant held the stock for more than one year and otherwise will be short-term.

Restricted Stock Awards

A participant will not have income upon the grant of restricted stock unless an election under Section 83(b) of the Code is made within 30 days of the date of grant. If a timely 83(b) election is made, then a participant will have compensation income equal to the value of the stock less the purchase price. When the stock is sold, the participant

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will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the date of grant. If the participant does not make an 83(b) election, then when the stock vests the participant will have compensation income equal to the value of the stock on the vesting date less the purchase price. When the stock is sold, the participant will have capital gain or loss equal to the sales proceeds less the value of the stock on the vesting date. Any capital gain or loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Restricted Stock Units

A participant will not have income upon the grant of a restricted stock unit. A participant is not permitted to make a Section 83(b) election with respect to a restricted stock unit award. When the restricted stock unit vests, the participant will have income on the vesting date in an amount equal to the fair market value of the stock on the vesting date less the purchase price, if any. When the stock is sold, the participant will have capital gain or loss equal to the sales proceeds less the value of the stock on the vesting date. Any capital gain or loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Other Stock-Based Awards

The tax consequences associated with any other stock-based award granted under the 2005 Plan will vary depending on the specific terms of such award. Among the relevant factors are whether or not the award has a readily ascertainable fair market value, whether or not the award is subject to forfeiture provisions or restrictions on transfer, the nature of the property to be received by the participant under the award and the participant's holding period and tax basis for the award or underlying Common Stock.

Tax Consequences to Us

There will be no tax consequences for us except that we will be entitled to a deduction when a participant has compensation income. Any such deduction will be subject to the limitations of Section 162(m) of the Code.

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On January 31, 2007, we had 20,476,923 shares of common stock issued and outstanding. The following table sets forth information we know about the beneficial ownership of our common stock, as of January 31, 2007, by:

each person known by us to own beneficially more than 5% of the outstanding shares of our common stock,

each of our directors,

each of our named executive officers, and

all directors and executive officers as a group.

Name of Beneficial Owner	Number of Shares Beneficially Owned(1)	Percentage of Common Stock Outstanding
5% Stockholders		
Felix J. Baker and Julian C. Baker(2) 667 Madison Avenue New York, NY 10021	3,977,273	17.9%
Merck & Co, Inc. One Merck Drive Whitehouse Station, NJ 08889	1,818,182	8.9%
Youssef El Zein(3) c/o Optima Life Sciences Limited St. James s Chambers 64A Athol Street Isle of Man IM1 1JE	1,852,163	8.7%
Optima Life Sciences Limited(4) St. James s Chambers 64A Athol Street Isle of Man IM1 1JE	1,412,096	6.7%
Other Directors and Named Executive Officers		
Sudhir Agrawal, D. Phil.(5)	994,679	4.6%
Robert G. Andersen(6)	182,440	*
James B. Wyngaarden, M.D.(7)	111,890	*
Timothy M. Sullivan, Ph.D.(8)	73,154	*
C. Keith Hartley(9)	60,997	*
Robert W. Karr, M.D.(10)	53,048	*
William S. Reardon(11)	15,999	*
Alison Taunton-Rigby, Ph.D.(12)	10,313	*
All directors and executive officers		

as a group (9 persons)(13)	3,354,683	14.7%
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* Less than 1%

- (1) The number of shares beneficially owned by each person is determined under rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares as to which the stockholder has the sole or shared voting power or investment power and any shares that the stockholder has the right to acquire within 60 days after January 31, 2007 through the conversion of any convertible security or the exercise of any stock option, warrant or other right. Unless otherwise indicated, each stockholder has sole investment and voting power (or shares such power with his spouse) with respect to the shares set forth in the table. The inclusion of any shares deemed beneficially owned does not constitute an admission of beneficial ownership of such shares.

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- (2) As reported on a Schedule 13D filed with the SEC on August 17, 2006 and related Forms 3/A and Forms 4 filed concurrently. Consists of shares of common stock held by the following entities:

Registered Holder	Shares of Common Stock	Common Stock Issuable Upon Exercise of Warrants
Baker Brothers Life Sciences, L.P.	1,396,988	1,047,740
Baker Brothers Investments, L.P.	70,350	52,763
Baker Brothers Investments II, L.P.	63,577	47,682
Baker Biotech Fund I, L.P.	698,811	524,108
14159, L.P.	43,002	32,252
Total	2,272,728	1,704,545

By virtue of their ownership of entities that have the power to control the investment decisions of the limited partnerships listed in the table above, Felix J. Baker and Julian C. Baker may each be deemed to be beneficial owners of shares owned by such entities and may be deemed to have shared power to vote or direct the vote of and shared power to dispose or direct the disposition of such securities.

- (3) Includes 13,252 shares of common stock subject to outstanding stock options, which are exercisable within the 60-day period following January 31, 2007. Also includes (a) 275,466 shares of common stock issuable upon the exercise of warrants held by Optima Life Sciences Ltd., or Optima, (b) 700,851 shares of common stock held by Optima, (c) 198,212 shares of common stock issuable upon the exercise of warrants held by Pillar Investment Ltd., or Pillar, and (d) 435,779 shares of common stock issuable upon conversion of the 4% convertible subordinated note due April 30, 2008 held by Optima, which shares were issued in connection with the automatic conversion of such notes in February 2007. Mr. El Zein is a director of Pillar and a director of Optima. Pillar is the manager and investment advisor of Optima and holds all of the voting shares of Optima. Because of his relationship with Pillar and Optima, Mr. El Zein may be deemed to beneficially own all of the shares of common stock that Pillar and Optima beneficially own. Mr. El Zein is one of our directors.
- (4) Includes 275,466 shares of common stock issuable upon the exercise of warrants held by Optima. Also includes 435,799 shares of common stock issuable upon conversion of our 4% convertible notes held by Optima, which shares were issued in connection with the automatic conversion of such notes in February 2007.
- (5) Includes 972,534 shares of common stock subject to outstanding stock options, which are exercisable within the 60-day period following January 31, 2007.
- (6) Includes 167,266 shares of common stock subject to outstanding stock options, which are exercisable within the 60-day period following January 31, 2007.
- (7) Includes 75,377 shares of common stock subject to outstanding stock options, which are exercisable within the 60-day period following January 31, 2007, and 1,284 shares of common stock issuable upon exercise of warrants.
- (8)

Includes 54,020 shares of common stock subject to outstanding stock options, which are exercisable within the 60-day period following January 31, 2007.

- (9) Includes 14,377 shares of common stock subject to outstanding stock options, which are exercisable within the 60-day period following January 31, 2007.
- (10) Includes 52,499 shares of common stock subject to outstanding stock options, which are exercisable within the 60-day period following January 31, 2007.
- (11) Includes 13,127 shares of common stock subject to outstanding stock options, which are exercisable within the 60-day period following January 31, 2007.
- (12) Consists of 10,313 shares of common stock subject to outstanding stock options, which are exercisable within the 60-day period following January 31, 2007.
- (13) Includes 1,372,765 shares of common stock subject to outstanding stock options held by the directors and executive officers as a group, which are exercisable within the 60-day period following January 31, 2007, and, as described in notes (3), (4) and (7) above, 474,962 shares of common stock issuable upon the exercise of warrants and 435,779 shares issuable upon conversion of our 4% convertible notes, which shares were issued in connection with the automatic conversion of such notes in February 2007.

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INFORMATION RELATING TO OUR BOARD OF DIRECTORS AND ITS COMMITTEES

Board of Directors

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

Our board of directors met 15 times during 2006, including regular, special and telephonic meetings. Each director who served as a director during 2006 attended at least 75% of the aggregate of: (1) the total number of board meetings held during the period of 2006 during which he or she was a director and (2) the total number of meetings held by all board committees on which he or she served during the period of 2006 during which he or she was a member of such committees.

Board Independence

Under American Stock Exchange rules, a director qualifies as independent if the board of directors affirmatively determines that he or she has no material relationship with us that would interfere with the exercise of independent judgment. The other independent members of the board make the determination as to whether a director's material relationship will interfere with the exercise of independent judgment.

Our board of directors has determined that none of our directors, except Sudhir Agrawal, Robert Karr and Youssef El Zein, has a material relationship with us that would interfere with the exercise of independent judgment and that therefore each of these directors is independent under Section 121(A) of the American Stock Exchange's listing standards. Our board of directors reached a similar determination with respect to Dr. Paul C. Zamecnik, who served as a director until June 7, 2006, the date of our 2006 annual meeting of stockholders. Drs. Agrawal and Karr are both employees and are therefore not independent. Mr. El Zein is a party to a number of transactions with us, as described under Certain Transactions, and is therefore not independent.

Board Committees

Our board of directors has established four standing committees—audit, compensation, finance, and nominating and corporate governance. The audit, compensation and nominating and corporate governance committees each operate under a charter that has been approved by our board of directors. Current copies of the charters for the audit, compensation and nominating and corporate governance committees are posted on the Investor Center Committee Charters section of our website, www.iderapharma.com.

Our board of directors has determined that all of the members of each of the audit, compensation and nominating and corporate governance committees are independent as defined under the American Stock Exchange rules including, in the case of all members of the audit committee, the independence requirements contemplated by Rule 10A-3 under the Securities Exchange Act of 1934.

Audit Committee

Our audit committee's responsibilities include:

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

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

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

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

discussing our risk management policies;

establishing policies regarding hiring employees from the registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;

reviewing and approving related party transactions, including transactions with affiliates of directors;

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

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

The current members of our audit committee are Mr. Hartley, Mr. Reardon and Dr. Taunton-Rigby. Our board of directors has determined that all three current members of the audit committee are audit committee financial experts as defined in Item 407(d)(5) of Regulation S-K. During 2006, our audit committee held nine meetings in person or by teleconference.

Compensation Committee

Our compensation committee's responsibilities include:

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

determining our chief executive officer's compensation;

reviewing and approving, or making recommendations to our board of directors with respect to, the compensation of our senior executives;

overseeing an evaluation of our other senior executives;

overseeing and administering our cash and equity incentive plans;

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

reviewing and discussing annually with management our Compensation Discussion and Analysis required by the SEC's rules; and

preparing the compensation committee report required by SEC's rules.

The current members of our compensation committee are Mr. Hartley, Mr. Reardon, Dr. Taunton-Rigby and Dr. Wyngaarden. During 2006, the compensation committee held eight meetings in person or by teleconference.

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

Finance Committee

Our finance committee's responsibilities include:

reviewing and advising management and our board of directors regarding the relative merits of prospective financing transactions; and

approving the specific terms of financing transactions when authority to do so is delegated to the finance committee by our board of directors.

During 2006, our finance committee reviewed and advised management, approved the specific terms of our private placements with Biotech Shares Ltd. and Baker Brothers, and approved the drawdown of funds from the financing commitment established with Biotech Shares, Ltd.

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The current members of our finance committee are Dr. Agrawal, Mr. Hartley, Dr. Karr, Mr. Reardon and Dr. Taunton-Rigby. During 2006, the finance committee held five meetings in person or by teleconference.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee's responsibilities include:

- identifying individuals qualified to become members of our board of directors;
- recommending to our board of directors the persons to be nominated for election as directors or to fill vacancies on our board of directors, and to be appointed to each of the committees of the board of directors;
- reviewing and making recommendations to the board of directors with respect to management succession planning;
- developing and recommending to the board of directors corporate governance principles; and
- overseeing periodic evaluations of the board of directors.

The members of our nominating and corporate governance committee are Mr. Hartley, Mr. Reardon and Dr. Wyngaarden. During 2006, the nominating and corporate governance committee held two meetings in person or by teleconference.

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

Our board of directors has adopted corporate governance guidelines to assist our board in the exercise of its duties and responsibilities, which we have posted on the **Investor Center Corporate Governance** section of our website, which is located at www.iderapharma.com.

Director Candidates and Nominating Process

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

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

- business acumen,
- knowledge of our business and industry,
- age,

experience,

diligence,

conflicts of interest,

ability to act in the interests of all stockholders, and

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

Our nominating and corporate governance committee does not assign specific weights to particular criteria and no particular criterion is a prerequisite for any prospective nominee. We believe that the backgrounds and

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qualifications of our directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow the board of directors to fulfill its responsibilities.

Stockholder Nominees

Stockholders may recommend individuals to the nominating and corporate governance committee for consideration as potential director candidates by submitting the individuals' names, together with appropriate biographical information and background materials and a statement as to whether the stockholder or group of stockholders making the recommendation has beneficially owned more than 5% of our common stock for at least one year as of the date such recommendation is made, to Nominating and Corporate Governance Committee, c/o Corporate Secretary, Idera Pharmaceuticals, Inc., 345 Vassar Street, Cambridge, Massachusetts 02139, or after June 2007, to 167 Sidney Street, Cambridge, Massachusetts 02139. Assuming that appropriate biographical and background material has been provided on a timely basis, the nominating and corporate governance committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others. If the board of directors determines to nominate a stockholder-recommended candidate and recommends his or her election, then his or her name will be included in our proxy card for the next annual meeting.

Stockholders also have the right under our bylaws to nominate director candidates directly, without any action or recommendation on the part of the nominating and corporate governance committee or the board of directors, by following the procedures set forth under "Information about the annual meeting - How and when may I submit a proposal for the 2008 annual meeting?" above. Candidates nominated by stockholders in accordance with the procedures set forth in our bylaws will not be included in our proxy card for the next annual meeting.

Communicating with our Board of Directors

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

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

Stockholders who wish to send communications on any topic to the board of directors should address such communications to board of directors, c/o Corporate Secretary, Idera Pharmaceuticals, Inc., 345 Vassar Street, Cambridge, Massachusetts 02139 or, after June 2007, 167 Sidney Street, Cambridge, Massachusetts 02139.

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

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

the number of shares held by the stockholder; and

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

Director Attendance at Annual Meeting of Stockholders

Directors are expected to attend the annual meeting of stockholders. All directors attended the 2006 annual meeting of stockholders.

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Code of Business Conduct and Ethics

We have adopted a written Code of Business Conduct and Ethics that applies to all of our directors, officers and employees, including our principal executive officer, principal financial and accounting officer, controller, and any person performing similar functions. We have posted a current copy of the Code of Business Conduct and Ethics in the Investor Center Code of Ethics section of our website, which is located at www.iderapharma.com.

Any waiver of the code of business conduct and ethics for directors or executive officers, or any amendment to the code that applies to directors or executive officers, may only be made by the board of directors. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K and any disclosures required by law or American Stock Exchange rules regarding an amendment to, or waiver from, a provision of this code of ethics by posting such information on our website, at the address and location specified above. To date, no such waivers have been requested or granted.

Compensation Committee Interlocks and Insider Participation

Our compensation committee consists of Mr. Hartley, Mr. Reardon, Dr. Taunton-Rigby and Dr. Wyngaarden. No member of our compensation committee was at any time during 2006, or was formerly, an officer or employee of ours. None of our executive officers has served as a director or member of the compensation committee (or other committee serving the same function as the compensation committee) of any other entity, while an executive officer of that other entity served as a member of our compensation committee.

DIRECTOR COMPENSATION

We use a combination of cash and equity-based compensation to attract and retain candidates to serve on our board of directors. We do not compensate directors who are also our employees for their service on our board of directors. As a result, Dr. Agrawal, our chief executive officer and chief scientific officer, and Dr. Karr, our president, do not receive any compensation for their service on our board of directors. We periodically review our cash and equity-based compensation for non-employee directors. As part of that process, we review director compensation at comparable companies and other relevant market data.

Meeting Fees

Members of the board of directors who are not employees are paid \$1,250 for personal attendance and \$500 for telephonic attendance at board of directors and committee meetings. No additional compensation is paid for committee meetings held in conjunction with board meetings. These directors are also reimbursed for their expenses incurred in connection with their attendance at board of directors and committee meetings.

We have a policy under which non-employee directors may elect to receive meeting fees in the form of common stock in lieu of cash. The number of shares of common stock issued to directors electing to receive common stock is determined on a quarterly basis by dividing the fees for meetings attended in a quarter by 85% of the closing price of our common stock on the first business day of the quarter following the quarter in which fees are earned. In connection with this policy, directors elected to receive common stock in lieu of cash for board of director and committee meeting fees earned during 2006 as follows:

Shares of

Value of Stock

Director	Common Stock	Cash Fees Foregone	Received(1)
William S. Reardon	745	\$ 2,500	\$ 2,941
Dr. James B. Wyngaarden	3,795	\$ 15,250	\$ 17,941
Dr. Paul C. Zamecnik(2)	1,153	\$ 4,500	\$ 5,294

- (1) Value determined by multiplying shares of common stock issued and the closing price of our common stock on the first business day of the quarter following the quarter in which fees are earned.
- (2) Dr. Zamecnik served as a member of our board of directors until June 7, 2006, the date of our 2006 annual meeting of stockholders.

Table of Contents*Annual Retainers*

In addition to meeting fees, we pay our non-employee directors annual retainers in cash. The chairman of our board receives an annual retainer of \$60,000, which is paid in monthly installments, and the chairman of our audit committee receives an annual retainer of \$15,000, which is paid in quarterly installments. All other non-employee directors receive an annual retainer of \$10,000, which is paid in quarterly installments.

Equity Compensation

Under our director compensation program, we grant each non-employee director options to purchase 3,125 shares of our common stock upon his or her initial election to the board of directors and options to purchase 1,250 shares of common stock on the first day of each calendar quarter. We grant initial options and options to purchase 469 shares of the quarterly grants under the 1995 Director Stock Option Plan. Until 2007, we have granted the remainder of the quarterly options under our 1997 Stock Incentive Plan. Beginning in 2007, we will make the remainder of the quarterly grants under our 2005 Stock Incentive Plan. All options are granted with exercise prices equal to the closing price of the common stock on the date of grant and vest on the first anniversary of the date of grant. Under the terms of the stock option agreements that we enter into with our non-employee directors, the vesting of all options granted to non-employee directors will be automatically accelerated upon the occurrence of a change in control of the company.

2006 Director Compensation

The following table sets forth a summary of the compensation we paid to our non-employee directors for service on our board in 2006.

DIRECTOR COMPENSATION TABLE FOR 2006

Name	Fees Earned or Paid in Cash (\$)	Option Awards \$(1)	All Other Compensation \$(2)	Total (\$)
Youssef El Zein	\$ 19,750	\$ 15,713		\$ 35,463
James B. Wyngaarden, M.D.	\$ 75,250(3)	\$ 15,713	\$ 2,691	\$ 93,654
C. Keith Hartley	\$ 33,057	\$ 15,713		\$ 48,770
William S. Reardon	\$ 36,500(3)	\$ 15,713	\$ 441	\$ 52,654
Alison Taunton-Rigby, Ph.D.	\$ 31,500	\$ 15,713		\$ 47,213
Paul C. Zamecnik, M.D.(4)	\$ 9,500(3)	\$ 13,875	\$ 10,794	\$ 34,169

- (1) The amount shown represents the amount of compensation cost that we recognized for financial statement reporting purposes for fiscal 2006 for all options held by each of the directors as computed in accordance with SFAS No. 123R utilizing the modified prospective transition method. In accordance with SFAS No. 123R, the fair value of each stock option is determined on the date of grant using the Black-Scholes option pricing model. This value is then amortized ratably over the vesting period. The amounts disregard the estimate of forfeitures related to service-based vesting conditions. See Note 2(k) of the financial statements in our annual report on Form 10-K for the year ended December 31, 2006 regarding assumptions we made in determining the SFAS No. 123R value of equity awards. The grant date fair value, computed in accordance with

SFAS No. 123R, of stock options granted to each of our non-employee directors in 2006 was \$14,447 except that in the case of Dr. Zamecnik it was \$7,913. As of December 31, 2006, our directors held options to purchase shares of our common stock as follows: Mr. El Zein: 15,752; Dr. Wyngaarden: 77,877; Mr. Reardon: 15,627; Mr. Hartley: 16,877; Ms. Taunton-Rigby: 12,813; and Dr. Zamecnik: 34,503.

- (2) Includes consulting fees paid to Dr. Zamecnik and, in the case of Drs. Wyngaarden and Zamecnik and Mr. Reardon, the difference between the value of our common stock purchased by the director and the amount of the cash meeting fees foregone with respect to such purchases. See Director Compensation Meeting Fees above for further information about the cash fees foregone.

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- (3) Includes cash meeting fees foregone at the election of the director of \$15,250 in the case of Dr. Wyngaarden, \$2,500 in the case of Mr. Reardon and \$4,500 in the case of Dr. Zamecnik. In lieu of such fees, the director elected to receive shares of our common stock.
- (4) Dr. Zamecnik served as a member of our board of directors until June 7, 2006, the date of our 2006 annual meeting of stockholders. We paid Dr. Zamecnik \$10,000 in consulting fees while he was serving as a director in 2006.

We have also entered into certain transactions with one of our directors and his affiliates, which transactions are described under *Certain Transactions* below.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

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 named executive officers. Our compensation committee makes compensation decisions relating to our named executive officers after consultation with our board of directors.

Overview of Compensation Program and Philosophy

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's overall compensation to key strategic, financial 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 that vest over time, which we believe helps to retain our executives and aligns 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.

In making compensation decisions, our compensation committee reviews survey compensation data, such as the Radford Survey of U.S. biotech companies generally and the Radford Survey of U.S. biotech companies with fewer than 50 employees, as well as publicly available data about our competitors. In making our annual equity grants in

December 2006, the compensation committee also reviewed data on equity compensation of a peer group of publicly traded companies which the committee believes have business life cycles, growth profiles, market capitalizations, products, research and development investment levels and number/capabilities of employees that are roughly comparable to ours and against which the committee believes we compete for executive talent. During 2006, the compensation committee reviewed materials prepared by Millbrook Partners, an executive compensation consulting firm that was engaged by management. Millbrook Partners analyzed the equity compensation of the selected companies and presented results to management and the compensation committee. Millbrook Partners also presented data drawn from the Radford surveys. The companies included in our peer group considered in

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connection with the annual equity grants in December 2006 were Alnylam Pharmaceuticals, Inc., Antigenics Inc., Avant Immunotherapeutics, Inc., Dynavax Technologies Corporation, Genta Incorporated, Glyco Genesys, Inc., GTC Biotherapeutics, Inc., Hemispherx Biopharma, Inc., Immunogen, Inc., Indevus Pharmaceuticals Inc., Isis Pharmaceuticals, Inc., Oxigene Inc., Praecis Pharmaceuticals Incorporated, Point Therapeutics, Inc. and Sima Therapeutics, Inc.

We compete with many other companies for executive personnel. Accordingly, our compensation committee generally targets overall compensation for executives towards the 50th percentile of the companies surveyed. Specifically, the compensation committee intends that if an executive achieves the individual and company performance goals determined by the compensation committee, then the executive should have the opportunity to receive compensation that is competitive with our peer group and industry norms. The compensation committee, however, may vary this general target with respect to executives based on the experience, performance levels and potential performance levels of the executive, as well as changes in duties and responsibilities.

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

- reviews executive officer performance in order to determine if individual goals are met at the end of the year;

- reviews all components of executive officer compensation, including base salary, cash bonuses, 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 and the president on the performance of all other executive officers besides the chief executive officer;

- holds executive sessions (without our management present); and

- reviews information regarding the performance and executive compensation of other companies and members of comparative peer group.

The compensation committee has implemented an annual performance review program for our executives, under which annual performance goals are determined at the beginning of each calendar year for the company as a whole, each corporate department and each executive. Annual corporate goals are proposed by management and approved by the board of directors for the following year. These corporate goals target the achievement of specific research, clinical and operational milestones. Annual department and individual goals focus on contributions that facilitate the achievement of the corporate goals and are set during the first quarter of each calendar year. Department goals are proposed by each department head and approved by the chief executive officer. Individual goals are proposed by each executive and approved by the chief executive officer. The compensation committee approves the chief executive officer's goals. The compensation committee considers the achievement of these corporate, department and individual performance goals as one of the factors in determining annual salary increases, annual bonuses, and annual stock option awards granted to our executives.

Typically, at the end of each year, we evaluate individual, department and corporate performance against the goals for the recently completed year. The chief executive officer prepares evaluations of the other executives and 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 and determines his compensation changes and awards. For all executives, annual base salary increases, annual stock option awards and annual bonuses, to the extent granted, are

implemented during the first calendar quarter of the year.

Elements of Compensation

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

base salary,

annual cash bonuses,

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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. 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, determines subjectively what it believes to be the appropriate level and mix of the various compensation components.

We do not have any non-equity incentive plans, pension plans or non-qualified deferred compensation plans.

Between October 2005 and April 2006, we entered into multi-year employment agreements with Dr. Agrawal, Dr. Karr and Mr. Andersen. These agreements are described below under the caption Employment Agreements. We entered into the employment agreements with Dr. Agrawal and Mr. Andersen in connection with the expiration of existing agreements. In negotiating and establishing the terms of these agreements with Dr. Agrawal and Mr. Andersen, the compensation committee reviewed the terms of the existing agreements carefully and, rather than simply extending the agreements, modified the terms of the existing agreements to reflect our new management structure and the resulting duties and responsibilities of each of our executives and to address the compensation committee's desire to bring the executives' employment terms more closely in line with the compensation terms of executives at our peer group. Dr. Karr's employment agreement was negotiated in connection with our hiring him to be our president and reflects terms that the compensation committee determined were necessary to ensure Dr. Karr accepted our offer of employment. In general, the agreements for Dr. Karr and Mr. Andersen were intended to provide comparable employment terms, but terms that were less favorable than Dr. Agrawal's employment terms.

Base Salary

In establishing base salaries for our executive officers for 2006, which the compensation committee did in December 2005, the compensation committee reviewed salaries at companies in our peer group, considered historic salary levels of the executive and the nature of the individual's responsibilities and compared the executive's base salary with those of our other executives. The compensation committee also considered the challenges involved in retaining first-rate managerial and scientific personnel engaged in the science of DNA because of the new nature of this technology. To the extent determined to be appropriate, the compensation committee also considered general economic conditions, our financial performance and the individual's performance. In establishing the salaries for Dr. Agrawal, Mr. Andersen and Dr. Sullivan for 2006, the compensation committee reviewed all of the preceding criteria as well as the contribution each executive made to the achievement of corporate goals in 2005 and increased 2006 base salary compared to 2005 base salary by 4.4% to 4.7%, on average consistent with increases in the consumer price index for the New England area. Dr. Karr joined us in December 2005 and his salary for 2006 was set in the employment agreement we negotiated with him at the time he was hired and was based on the level of salary that the committee determined was required to ensure Dr. Karr accepted our offer of employment in light of the salaries of our other executives.

Based on management's performance evaluations, the performance of all of our executive officers for 2006 either met or exceeded their job requirements. At the end of 2006, based on the same considerations discussed above and the performance evaluations, the compensation committee set salaries for 2007, which reflected increases in the range of 4% to 8% compared to 2006 salaries for our named executive officers.

Cash Bonuses

The compensation committee generally structures cash bonuses by linking them to the achievement of specified company and individual performance objectives. The amount of the bonus paid, if any, varies among the

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executive officers depending on their success in achieving individual performance goals and their contribution to the achievement of corporate performance goals. The compensation committee reviews and assesses corporate goals and individual performance by executive officers. Corporate performance criteria that are considered by the compensation committee include performance with respect to development milestones, business development objectives, commercialization goals, financial goals and other measures of corporate performance.

In determining the cash bonuses to be paid to each of the executive officers for services rendered in 2006, the compensation committee considered a variety of factors, including the achievement of corporate goals and individual performance in 2006. Corporate goals for 2006 were established in six categories: Clinical/Regulatory, Business Development, Finance/SEC Compliance/Facility, Investor Relations/Public Relations, Science/Intellectual Property and Financial/Corporate. The committee worked with our chief executive officer to determine these goals, which were designed to be challenging goals that the committee believed could be reasonably achieved in 2006.

Individual objectives are necessarily tied to the particular area of expertise of the employee and his or her performance in attaining those objectives relative to external forces, internal resources utilized and overall individual effort. The individual performance objectives are determined by the executive officer to whom the named executive officer reports and reviewed with the compensation committee. Individual objectives are based on a variety of factors, including the achievement of corporate goals.

The compensation committee recognized that in prior years the committee had limited the amount of cash bonuses due to our cash position. Accordingly, in light of our more favorable cash position at the end of 2006, the compensation committee determined to modify its customary allocation of incentive performance payments between cash and equity and increase the weight of the cash portion of such payments.

The committee also recognized that we had agreed in the employment agreements to pay Dr. Agrawal a bonus of between 20% and 70% of his base salary, Dr. Karr a bonus of between 10% and 50% of his base salary for 2006 and Mr. Andersen 10% to 50% of his base salary for 2006. In recognition of the performance of Drs. Agrawal and Karr in 2006, the compensation committee elected to give bonuses in excess of the high end of the bonus range provided for in their employment agreements. The compensation committee granted a bonus of 101% of Dr. Agrawal's base salary and 67% of Dr. Karr's base salary.

Stock Option Awards

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 grants 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 grants 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 grants to our executives, our compensation committee considers comparable equity awards of executives in our compensation peer group, our company-level performance, the applicable executive's previous awards and the recommendations of management and consulting to the compensation committee.

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

The compensation committee approves all equity grants of options to our executives. The compensation committee reviews all components of the executive's compensation when determining annual equity awards to ensure that an executive's total compensation conforms to our overall philosophy and objectives. The compensation committee intends that the value of the annual equity award for each named executive officer will be set near the 50th percentile of companies in our compensation peer group.

The compensation committee typically makes initial stock option awards to new executives and annual stock option grants as part of our overall compensation program. In general, our option grants vest over four years in 16

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equal quarterly installments. However, our executive's stock options will become immediately exercisable in full if there is a change in control of the company. We generally set the exercise price of stock options to equal the closing price of our common stock on the American Stock Exchange on the date of grant.

Equity awards to our named executive officers are typically granted annually in conjunction with the review of their individual performance. This review typically occurs at the regularly scheduled meeting of the compensation committee held in the fourth quarter of each year. For instance, annual grants for 2006 were made in December 2006. The compensation committee does not plan to approve annual equity grants to all 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 addition to considering the criteria described above, in determining to grant Dr. Agrawal options to purchase 125,000 shares of common stock, the committee granted Dr. Agrawal, as part of those options, options to purchase 50,000 shares pursuant to, and in connection with the achievement or near-achievement of milestones set forth in, Dr. Agrawal's employment agreement. The compensation committee's decision in December 2006 to grant Dr. Karr options to purchase 125,000 shares of common stock reflected, in part, its determination that the number of options in the initial stock option grant made to Dr. Karr when he was hired in December 2005 was below the target level for a president of a company such as ours. The compensation committee also agreed with Drs. Agrawal and Karr to review further the stock option grants made to Drs. Agrawal and Karr in December 2006 and, in consultation with an outside consultant to be retained by the compensation committee, to consider what stock option levels are most appropriate for a long-time executive of a company who is promoted to chief executive officer, such as Dr. Agrawal, and an executive of a company that serves as president, such as Dr. Karr. Upon completion of this review, the compensation committee may make additional option grants to Drs. Agrawal and Karr.

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 2006, 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 age-based 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. Each of our named executive officers contributed to our 401(k) plan and their contributions were matched by us.

We occasionally pay relocation expenses for newly hired executive officers whom we require to relocate as a condition to their employment by us. We believe that this is a typical benefit 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 relocation assistance.

In 2006, Drs. Karr and Sullivan received reimbursement for local housing expenses. Each of Drs. Karr and Sullivan maintains a primary residence outside of a reasonable daily commuting range to our headquarters and pays for local housing. In the case of Dr. Karr, we agreed in his employment agreement to reimburse him up to \$2,500 per month for reasonable housing expenses during the initial two-year term of his employment with us.

Our employee stock purchase program, 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. Our employee stock purchase plan allows participants to purchase shares of our common stock at a 15% discount from the fair market value of the common stock either at the beginning or the end of the applicable purchase period, whichever price is lower. Two of our named executive officers, Mr. Andersen and Mr. Sullivan, participated in the employee stock

purchase program during 2006.

Severance

Pursuant to the employment agreements we have entered into with certain of our executives and to our stock incentive plans, our executives are entitled to specified benefits in the event of the termination of their employment

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under specified circumstances. In negotiating and establishing the terms of these agreements with our executive officers, the compensation committee sought to bring the executives' employment terms in line with the severance terms of executives in our peer group. We have provided more detailed information about these benefits, along with estimates of their value under various circumstances, under the captions "Employment Agreements" and "Potential Payments Upon Termination or Change in Control" below.

We believe providing these benefits helps us compete for executive talent. After reviewing the practices of companies represented in the compensation peer group, we believe that our change in control benefits are generally in line with packages offered to executives by the companies in the peer group.

Tax and Accounting Considerations

Compliance with Internal Revenue Code Section 162(m).

Section 162(m) of the Internal Revenue Code generally disallows a tax deduction to public companies for certain compensation in excess of \$1 million paid to our chief executive officer and the four other most highly compensated executive officers. Certain compensation, including qualified performance-based compensation, will not be subject to the deduction limit if specified requirements are met. In general, we structure and administer our stock option plans in a manner intended to comply with the performance-based exception to Section 162(m). Nevertheless, there can be no assurance that compensation attributable to future awards granted under its plans will be treated as qualified performance-based compensation under Section 162(m). In addition, 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.

Non-Qualified Deferred Compensation

The American Jobs Creation Act of 2004 changed the tax rules applicable to non-qualified deferred compensation arrangements. We believe that we are in good faith compliance with The American Jobs Creation Act of 2004, which became effective January 1, 2005.

Accounting for Stock-Based Compensation

Beginning on January 1, 2006, our company began accounting for stock-based compensation in accordance with the requirements of SFAS No. 123R. The committee considered the potential impact of SFAS 123R in determining the size of stock option awards.

Stock Ownership Guidelines

We do not have stock ownership guidelines for our executive officers.

Report of the Compensation Committee on Executive Compensation

The compensation committee of our board of directors has reviewed and discussed the Compensation Discussion and Analysis of this proxy statement with our management. Based on its review and discussions with our management, the compensation committee recommended to our board of directors that the Compensation Discussion and Analysis be included in this proxy statement.

COMPENSATION COMMITTEE

James B. Wyngaarden, *Chairman*

C. Keith Hartley

William S. Reardon

Alison Taunton-Rigby

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The table below summarizes 2006 compensation paid to or earned by our chief executive officer, our chief financial officer and our other executive officers, who we refer to collectively as our named executive officers. We did not grant any stock awards in 2006 and our named executive officers have no non-equity plan compensation, pension or non-qualified compensation to report for 2006.

Summary Compensation Table For Fiscal Year 2006

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Option Awards(1) (\$)	All Other	Total (\$)
					Compensation(2) (\$)	
Sudhir Agrawal, D. Phil. Chief Executive Officer and Chief Scientific Officer	2006	\$ 445,000	\$ 450,000(3)	\$ 284,788	\$ 33,617	\$ 1,213,405
Robert W. Karr, M.D. President	2006	\$ 375,000	\$ 250,000(3)	\$ 119,051	\$ 63,009	\$ 807,060
Robert G. Andersen Chief Financial Officer and Vice President, Operations	2006	\$ 313,500	\$ 70,000	\$ 47,983	\$ 26,883	\$ 458,366
Timothy M. Sullivan, Ph.D. Vice President, Development Programs	2006	\$ 235,000	\$ 50,000	\$ 72,213	\$ 32,691	\$ 389,904

(1) Represents the amount of compensation cost that we recognized for financial statement reporting purposes for fiscal year 2006 with respect to stock options granted in fiscal year 2006 and previous fiscal years, as computed in accordance with SFAS No. 123R. In accordance with SFAS No. 123R, the fair value of each stock option is determined on the date of grant using the Black-Scholes option pricing model. This value is then amortized ratably over the vesting period. The amounts disregard the estimate of forfeitures related to service-based vesting conditions. See Note 2(k) of the financial statements in our annual report on Form 10-K for the year ended December 31, 2006 regarding assumptions we made in determining the SFAS 123R value of equity awards.

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

	Dr. Agrawal	Mr. Andersen	Dr. Karr	Dr. Sullivan
	\$ 8,000	\$ 2,464	\$ 4,892	

Reimbursement of legal fees in connection
with the negotiation of employment
agreements

Reimbursement for housing expenses			\$ 32,500	\$ 11,449
Company match on 401(k)	\$ 10,000	\$ 9,405	\$ 10,000	\$ 7,050
Premiums paid by us for all insurance plans	\$ 15,617	\$ 15,014	\$ 15,617	\$ 14,192

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

- (3) In the case of Dr. Agrawal and Dr. Karr, the bonus exceeded the high end of the bonus provided for in the named executive officer's employment agreement with us, which was \$311,500 for Dr. Agrawal and \$187,500 for Dr. Karr.

Employment Agreements

Sudhir Agrawal. We are a party to an employment agreement with Dr. Sudhir Agrawal, our chief executive officer and chief scientific officer. Under the agreement, we agreed to continue to employ Dr. Agrawal for a term originally ending on October 19, 2008. The term is automatically extended for an additional year on October 19th of

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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 October 19, 2006, the term was extended to October 19, 2009.

Under the agreement, Dr. Agrawal is currently entitled to receive an annual base salary of \$463,000 or such higher amount as our compensation committee or our board of directors may determine, and 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. Under the agreement, we confirmed a May 12, 2005 agreement to grant Dr. Agrawal additional options to purchase an aggregate of up to 75,000 shares of Common Stock upon the achievement of specified milestones. In December 2006, we granted options to purchase 125,000 shares of our common stock to Dr. Agrawal, including options to purchase 50,000 shares that were granted based on the achievement or near-achievement of two of the milestones in Dr. Agrawal's employment agreement. In April 2007, the compensation committee amended the vesting as to the options to purchase 50,000 shares to comply with the terms of Dr. Agrawal's employment agreement, which provides that options granted in satisfaction of the milestones are to vest quarterly over a three-year period, commencing on the date the option is granted.

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, provided that payment of Dr. Agrawal's severance for the first six months following termination will be made in a lump sum on the date six months and one day following termination;

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 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 and, in lieu of the partial acceleration of vesting, we have agreed that if we execute an agreement that provides for the company to be acquired or liquidated, or otherwise upon a change in control, we will vest all unvested stock options held by Dr. Agrawal in full. We have also agreed to reimburse Dr. Agrawal for the tax payments described below under Excess Parachute Payments.

In the event of Dr. Agrawal's death or the termination of his employment due to disability, we have agreed to pay Dr. Agrawal or his beneficiary a lump sum cash payment equal to the pro rata portion of the annual bonus that he

earned in the year preceding his death or termination due to disability. Additionally, any stock options or other equity incentive awards previously granted to Dr. Agrawal and held by him on the date of his death or termination due to disability will vest as of such date to the extent such options or equity incentive awards would have vested had he continued to be an employee until the final day of the term of the employment agreement in effect immediately prior to his death or termination due to disability. Dr. Agrawal or his beneficiary will be permitted to exercise such stock options until the second anniversary of his death or termination of employment due to disability.

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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. This agreement replaced an employment agreement that we entered into with Dr. Agrawal in April 2002.

Robert W. Karr, M.D. We are a party to an employment agreement with Dr. Robert W. Karr, our President. Under the agreement, we agreed to employ Dr. Karr as our President for a two-year term ending on December 5, 2007, which term will automatically be extended for an additional year on such date and on an annual basis thereafter unless either party provides prior written notice otherwise at least 90 days prior to the end of the term. Under the agreement, Dr. Karr is entitled to receive:

an annual base salary that is currently \$390,000 or such higher amount as our compensation committee or our board of directors may determine;

an annual bonus as determined by our compensation committee or our board of directors, provided that for 2006 Dr. Karr's annual bonus would be between 10% and 50% of his base salary; and

reimbursement for housing of up to \$2,500 per month until December 5, 2007.

In connection with the execution of the agreement, we granted Dr. Karr options, under our 2005 Stock Incentive Plan, to purchase 125,000 shares of Common Stock at an exercise price of \$4.80 per share. These options vest quarterly over a four-year period with the first installment having vested on March 5, 2006.

If we terminate Dr. Karr's employment without cause or if he terminates his employment for good reason, we have agreed to:

pay Dr. Karr his base salary as severance for a period ending on the first anniversary of his termination date, provided that payment of Dr. Karr's severance for the first six months following termination will be made in a lump sum on the date six months and one day following termination;

continue to provide Dr. Karr 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 first anniversary of the termination date, except to the extent another employer provides Dr. Karr with comparable benefits.

accelerate the vesting of any stock options or other equity incentive awards previously granted to Dr. Karr 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 first anniversary of the termination date; and

permit Dr. Karr to exercise any stock options until the first anniversary of the termination date.

If we terminate Dr. Karr's employment without cause or he terminates it for good reason in connection with, or within one year after, a change in control of the company, we have agreed to pay Dr. Karr in lieu of the severance payment described above a lump sum cash payment equal to his base salary and will continue his benefits and permit exercise of his options as described above. In addition, we have agreed that upon the occurrence of a change in control we will vest all stock options held by Dr. Karr in full. We have also agreed to reimburse Dr. Karr for the tax payments described below under Excess Parachute Payments.

In the event of Dr. Karr's death or the termination of his employment due to disability, we have agreed that any stock options or other equity incentive awards previously granted to Dr. Karr 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 earlier of the final day of the term of the employment agreement in effect immediately prior to his death or termination due to disability or the first anniversary of his death or termination of employment. Dr. Karr or his beneficiary will be permitted to exercise such stock options until the first anniversary of his death or termination of employment due to disability.

Dr. Karr 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.

Robert G. Andersen. We are a party to an employment agreement with Robert G. Andersen, our Chief Financial Officer and Vice President of Operations for a two-year term ending on April 13, 2008, which term will

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automatically be extended for an additional year on such date and on an annual basis thereafter unless either party provides prior written notice otherwise at least 90 days prior to the end of the term. Under the agreement, Mr. Andersen is entitled to receive:

an annual base salary that is currently \$326,000 or such higher amount as our compensation committee or our board of directors may determine; and

an annual bonus as determined by our compensation committee or our board of directors, provided that for 2006 Mr. Andersen's annual bonus would be between 10% and 50% of his base salary.

If we terminate Mr. Andersen's employment without cause or if he terminates his employment for good reason, we have agreed to:

pay Mr. Andersen his base salary as severance for a period ending on the first anniversary of his termination date; provided that payment of Mr. Andersen's severance for the first six months following termination will be made in a lump sum on the date six months and one day following termination;

continue to provide Mr. Andersen 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 first anniversary of the termination date, except to the extent another employer provides Mr. Andersen with comparable benefits.

accelerate the vesting of any stock options or other equity incentive awards previously granted to Mr. Andersen 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 first anniversary of the termination date; and

permit Mr. Andersen to exercise any stock options until the first anniversary of the termination date.

If we terminate Mr. Andersen's employment without cause or he terminates it for good reason in connection with, or within one year after, a change in control of the company, we have agreed to pay Mr. Andersen in lieu of the severance payment described above a lump sum cash payment equal to his base salary and will continue his benefits and permit exercise of his options as described above. In addition, we have agreed that upon the occurrence of a change in control we will vest all stock options held by Mr. Andersen in full. We have also agreed to reimburse Mr. Andersen for the tax payments described below under *Excess Parachute Payments*.

In the event of Mr. Andersen's death or the termination of his employment due to disability, we have agreed that any stock options or other equity incentive awards previously granted to Mr. Andersen 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 earlier of the final day of the term of the employment agreement in effect immediately prior to his death or termination due to disability or the first anniversary of his death or termination of employment due to disability. Mr. Andersen or his beneficiary will be permitted to exercise such stock options until the first anniversary of his death or termination of employment due to disability.

Mr. Andersen 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.

Excess Parachute Payments. Our employment agreements with Drs. Agrawal and Karr and Mr. Andersen provide 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 the executive 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.

Table of Contents**Grants of Plan-Based Awards**

The following table sets forth information regarding stock options granted to each named executive officer during 2006. We did not grant any stock awards in 2006.

Grants of Plan-Based Awards for Fiscal Year 2006

Name	Grant Date	All Other Option Awards: Number of		Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Award (\$)(2)
		Securities Underlying Options (1) (#)			
Sudhir Agrawal, D. Phil.	12/14/06	125,000		\$ 5.10	\$ 501,763
Robert W. Karr, M.D.	12/14/06	125,000		\$ 5.10	\$ 501,763
Robert G. Andersen	12/14/06	30,000		\$ 5.10	\$ 120,423
Timothy M. Sullivan, Ph.D.	12/14/06	20,000		\$ 5.10	\$ 80,678

(1) These stock options were granted pursuant to our 2005 Stock Incentive Plan. The stock options vest in sixteen equal quarterly installments until fully vested on the fourth anniversary of the date of grant except that options to purchase 50,000 shares granted to Dr. Agrawal pursuant to his employment agreement were subsequently amended to vest in quarterly installments until fully vested on the third anniversary of the date of grant. The term of these options is ten years.

(2) These amounts represent the grant date fair value, computed in accordance with SFAS No. 123R of stock options granted to the named executive officers in 2006. In accordance with SFAS No. 123R, the grant date fair value is determined on the date of grant using Black-Scholes option pricing model. See Note 2(k) of the consolidated financial statements in our annual report on Form 10-K for the year ended December 31, 2006 regarding assumptions we made in determining the SFAS 123R value of equity awards.

Table of Contents**Outstanding Equity Awards At Fiscal Year-End**

The following table sets forth information regarding the outstanding stock options held by our named executive officers as of December 31, 2006. None of our named executive officers held restricted common stock that had not vested or other equity incentive plan awards or rights that had not vested or were unearned as of December 31, 2006.

Outstanding Equity Awards At Fiscal Year-End for 2006

Name	Number of Securities Underlying Unexercised Options Exercisable (#)	Option Awards		Option Expiration Date
		Number of Securities Underlying Unexercised Options Unexercisable (#)(1)	Option Exercise Price (\$)	
Sudhir Agrawal, D. Phil.	908		\$ 4.00	2/19/2007
	2,375		\$ 4.00	4/9/2007
	750		\$ 4.00	5/21/2007
	62,500		\$ 4.00	7/21/2008
	62,499		\$ 4.00	1/1/2009
	62,500		\$ 8.50	1/1/2010
	62,500		\$ 8.50	1/1/2011
	243,751		\$ 4.50	3/28/2011
	47,718		\$ 8.50	4/2/2011
	288,750		\$ 6.60	7/25/2011
	15,624(2)	15,626(2)	\$ 4.16	11/30/2014
	62,501(3)	62,499(3)	\$ 4.48	5/12/2015
	25,001(4)	24,999(4)	\$ 5.76	6/1/2015
9,375(5)	28,125(5)	\$ 4.24	12/15/2015	
	125,000(6)	\$ 5.10	12/14/2016	
Robert W. Karr, M.D.	3,125		\$ 4.88	6/15/2015
	1,250		\$ 4.48	7/1/2015
	1,250		\$ 5.36	10/1/2015
	31,250(7)	93,750(7)	\$ 4.80	12/5/2015
		125,000(8)	\$ 5.10	12/14/2016
Robert G. Andersen	70		\$ 4.00	2/19/2007
	380		\$ 4.00	4/9/2007
	120		\$ 4.00	5/21/2007
	21,875		\$ 4.00	7/21/2008
	4,737		\$ 4.00	3/1/2009
	3,125		\$ 4.00	10/6/2009
	56,250		\$ 10.00	6/13/2010
	50,001		\$ 4.50	3/28/2011
	18,748(2)	18,752(2)	\$ 4.16	11/30/2014

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	6,250(5)	18,750(5)	\$ 4.24	12/15/2015
		30,000(8)	\$ 5.10	12/14/2016
Timothy M. Sullivan, Ph.D.	7,500		\$ 11.28	3/25/2012
	3,750		\$ 6.24	12/12/2012
	4,218(9)	1,407(9)	\$ 8.96	12/16/2013
	29,374(2)	29,376(2)	\$ 4.16	11/30/2014
	3,125(5)	9,375(5)	\$ 4.24	12/15/2015
		20,000(8)	\$ 5.10	12/14/2016

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- (1) In accordance with the terms of our employment agreements with the named executive officers, except Dr. Sullivan, unvested stock options vest in full upon a change in control of our company.
- (2) 6.25% of the shares subject to this option vest quarterly from the date of grant until November 30, 2008 when all shares will be vested. The total number of shares subject to the option equals the sum of the figures in the exercisable and unexercisable columns.
- (3) 8.33% of the shares subject to this option vest quarterly from the date of grant until May 12, 2008 when all shares will be vested. The total number of shares subject to the option equals the sum of the figures in the exercisable and unexercisable columns.
- (4) 8.33% of the shares subject to this option vest quarterly from the date of grant until June 1, 2008 when all shares will be vested. The total number of shares subject to the option equals the sum of the figures in the exercisable and unexercisable columns.
- (5) 6.25% of the shares subject to this option vest quarterly from the date of grant until December 15, 2009 when all shares will be vested. The total number of shares subject to the option equals the sum of the figures in the exercisable and unexercisable columns.
- (6) 6.25% of the shares subject to this option vest quarterly from the date of grant until December 14, 2010 when all shares will be vested. The vesting as to 50,000 of these shares was amended subsequent to December 31, 2006 as described above under Employment Agreements.
- (7) 6.25% of the shares subject to this option vest quarterly from the date of grant until December 5, 2009 when all shares will be vested. The total number of shares subject to the option equals the sum of the figures in the exercisable and unexercisable columns.
- (8) 6.25% of the shares subject to this option vest quarterly from the date of grant until December 14, 2010 when all shares will be vested.
- (9) 6.25% of the shares subject to this option vest quarterly from the date of grant until December 16, 2007 when all shares will be vested. The total number of shares subject to the option equals the sum of the figures in the exercisable and unexercisable column.

Option Exercises

The following table sets forth information regarding the exercise of options by our named executive officers during 2006. None of our named executive officers had stock awards that vested in 2006.

Option Exercises and Stock Vested For Fiscal Year 2006

Name	Option Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise \$(1)
Sudhir Agrawal, D. Phil.	3,125	\$ 2,250

Robert W. Karr, M.D.
Robert G. Andersen
Timothy M. Sullivan, Ph.D.

- (1) The value realized on exercise was calculated by multiplying the number of shares acquired on exercise by the difference between the market price of the underlying securities at exercise and the exercise price of the options. The market price at exercise represents the closing market price of our common stock on the date of exercise or the sales price if the options were exercised and sold.

Potential Payments Under Termination or Change in Control

We have employment agreements with three of our named executive officers, Drs. Agrawal and Karr and Mr. Andersen, that provide for severance benefits following a termination of their employment with our company. These agreements are described above under the caption Employment Agreements. We have not entered into an

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employment agreement with Dr. Sullivan and he is not entitled to any severance benefits following a termination of his employment with our company.

The following table sets forth the estimated potential benefits that our named executive officers would be entitled to receive upon their termination of employment with our company (other than a termination in connection with or following a change in control of the company). These disclosed amounts assume that the named executive officers employment terminated on December 31, 2006, are estimates only and do not necessarily reflect the actual amounts that would be paid to our named executive officers, which would only be known at the time that they become eligible for payment following their termination.

Termination of Employment Not In Connection With Or Following Change in Control

Name	Severance		Value of Accelerated Vesting of Stock Options(2)	Value of Continuation of Benefits(3)	Total
	Payments(1)	Bonus Amount			
	(\$)	(\$)	(\$)	(\$)	(\$)
Sudhir Agrawal, D. Phil.	\$ 891,219	\$ 120,000(4)	\$ 115,782(5)	\$ 31,234	\$ 1,158,235
Robert W. Karr, M.D.	\$ 375,000		\$ 27,500(6)	\$ 15,617	\$ 418,117
Robert G. Andersen	\$ 313,500		\$ 20,895(7)	\$ 20,019	\$ 354,414
Timothy M. Sullivan, Ph.D.					

- (1) The severance payments will be paid out in accordance with our payroll practices over the term of the severance period. However, the severance payments for the six-month period following termination will be paid in a lump sum on the date six months and one day following the date of termination. Severance payments will only be paid following termination by the named executive officer for good reason or following termination by us other than for death, disability or cause.
- (2) This amount equals the difference between the exercise price of each in the money option and \$5.39, the closing price of our common stock on the American Stock Exchange on December 29, 2006, multiplied by the number of options that would vest as a result of the accelerated vesting provided for under the employment agreements in the case of termination without cause by us or termination by the executive officer for good reason.
- (3) Represents the estimated cost to us of continuing the healthcare, disability, life and dental insurance benefits of the named executive officers for the full severance period based on our costs for such benefits at December 29, 2006. We will pay benefits continuation following a termination by us other than for death, disability or cause or termination by the named executive officer for good reason.
- (4) Dr. Agrawal would be entitled to the pro rata portion of the bonus earned for the prior fiscal year in this case, 2005. This amount does not include any bonus that would otherwise be paid for 2006. We will pay the bonus following termination upon Dr. Agrawal's death or disability, termination by us without cause or termination by Dr. Agrawal for good reason.

- (5) If Dr. Agrawal's employment were terminated upon his death or disability the value of his accelerated stock options would be \$130,664. Upon termination of Dr. Agrawal's employment for death or disability the vesting of options through the remainder of the employment term would be accelerated.
- (6) If Dr. Karr's employment were terminated upon his death or disability the value of his accelerated stock options would be \$25,234. Upon termination of Dr. Karr's employment due to death or disability the vesting of options for one year would be accelerated.
- (7) If Mr. Andersen's employment were terminated upon his death or disability, the value of his accelerated stock options would be \$20,895. Upon termination of Mr. Andersen's employment due to death or disability the vesting of options for one year would be accelerated.

Under the employment agreements with Drs. Agrawal and Karr and Mr. Andersen, they each would be entitled to receive the following estimated benefits if his employment were terminated in connection with or within one year after a change in control. These disclosed amounts are estimates only and do not necessarily reflect the actual amounts that would be paid to our named executive officers, which would only be known at the time that they

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become eligible for payment and would only be payable if a change in control were to occur. The table below reflects the amount that could be payable under the various arrangements assuming that the change in control occurred on December 31, 2006 and the named executive officer's employment was immediately terminated. Based on these assumptions, none of the payments would be subject to the excise tax imposed by Section 4999 of the Internal Revenue Code and therefore we would not be required to make any gross-up payments to the named executive officers.

Termination of Employment In Connection With or Following Change in Control

Name	Severance Payments(1) (\$)	Value of Accelerated Vesting of Stock Options(2) (\$)	Value of Continuation of Benefits(3) (\$)	Total (\$)
Sudhir Agrawal, D. Phil.	\$ 891,219	\$ 144,688	\$ 31,234	\$ 1,067,141
Robert W. Karr, M.D.	\$ 375,000	\$ 91,563(4)	\$ 15,617	\$ 482,180
Robert G. Andersen	\$ 313,500	\$ 53,327(5)	\$ 20,019	\$ 386,846
Timothy M. Sullivan, Ph.D.				

(1) The severance payments will be paid out in a lump sum within 30 days of the date of termination. Severance payments will only be paid following termination by the named executive officer for good reason or termination by us other than for death, disability or cause.

(2) This amount equals the difference between the exercise price of each in the money option and \$5.39, the closing price of our common stock on the American Stock Exchange on December 29, 2006, multiplied by the number of options that would vest as a result of the accelerated vesting provided for under the employment agreements. Upon a change of control, the vesting of all unvested options will accelerate.

(3) Represents the estimated cost to us of continuing the healthcare, disability, life and dental insurance benefits of the named executive officers for the applicable severance period based on our costs for such benefits at December 29, 2006.

Table of Contents**SECURITIES AUTHORIZED FOR ISSUANCE UNDER OUR EQUITY COMPENSATION PLANS**

The following table provides information about our common stock that may be issued upon exercise of options, warrants and rights under all of our equity compensation plans as of December 31, 2006.

Equity Compensation Plan Information

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)
Equity compensation plans approved by stockholders(1)	2,320,307	\$ 5.17	407,132
Equity compensation plans not approved by stockholders(2)	337,162	7.05	
Total	2,657,469	5.41	407,132

(1) Includes our:

1995 Stock Option Plan

1995 Employee Stock Purchase Plan

1995 Director Stock Option Plan

1997 Stock Incentive Plan

2005 Stock Incentive Plan

(2) Includes non-statutory stock option agreements issued to Dr. Sudhir Agrawal, effective as of April 2, 2001 and July 25, 2001 and a warrant to purchase 12,500 shares of common stock at a price of \$13.20 issued to a consultant in 2002 that expired in January 2007 without being exercised.

Non-Statutory Stock Option Agreements with Dr. Agrawal

In 2001, we granted Dr. Agrawal four non-statutory stock options outside of any equity compensation plan approved by our stockholders, as follows:

A non-statutory stock option agreement providing for the purchase of 157,500 shares of common stock at an exercise price of \$6.60 per share;

A non-statutory stock option agreement providing for the purchase of 68,750 shares of common stock at an exercise price of \$6.60 per share;

A non-statutory stock option agreement providing for the purchase of 62,500 shares of common stock at an exercise price of \$6.60 per share; and

A non-statutory stock option agreement providing for the purchase of 35,912 shares of common stock at an exercise price of \$8.504 per share.

These options have a term of ten years and are now fully vested. Subject to the terms of Dr. Agrawal's employment agreement with us, unless we terminate his employment for cause or he voluntarily resigns, these options are exercisable at any time prior to the earlier of the date that is 24 months after the termination of Dr. Agrawal's relationship with us and the option expiration date. If we terminate Dr. Agrawal's employment for cause or he voluntarily resigns, then the options will be exercisable at any time prior to the earlier of the date that is 12 months after the termination of Dr. Agrawal's relationship with us and the option expiration date.

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ACCOUNTING MATTERS

Report of the Audit Committee

During the fiscal year ended December 31, 2006, our audit committee was composed of three non-employee members and acted under a written charter approved by our board of directors in June 2000 and amended in April 2004. All members of the audit committee are independent directors pursuant to the listing standards of the American Stock Exchange, as described above.

The audit committee reviewed our audited financial statements for the fiscal year ended December 31, 2006 and discussed these financial statements with our management. Management is responsible for our internal controls and the financial reporting process. Our registered public accounting firm is responsible for performing an independent audit of our financial statements in accordance with audit standards generally accepted in the United States of America and for issuing a report on those financial statements. As appropriate, the audit committee reviews and evaluates, and discusses with our management, internal accounting and financial personnel and the registered public accounting firm, the following:

- the plan for, and the registered public accounting firm's report on, each audit of our financial statements;
- our financial disclosure documents, including all financial statements and reports filed with the SEC or sent to stockholders;
- management's selection, application and disclosure of significant accounting policies;
- changes in our accounting practices, principles, controls or methodologies;
- significant developments or changes in accounting rules applicable to us; and
- the adequacy of our internal controls and accounting and financial personnel.

Management represented to the audit committee that our financial statements had been prepared in accordance with accounting principles generally accepted in the United States of America.

The audit committee also reviewed and discussed the audited financial statements and the matters required by Statement on Auditing Standards 61, or SAS 61 (Communication with Audit Committees), with our registered public accounting firm. SAS 61 requires our registered public accounting firm to discuss with our audit committee, among other things, the following:

- methods to account for significant unusual transactions;
- the initial selection of and changes in significant accounting policies;
- the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus;
- the process used by management in formulating particularly sensitive accounting estimates and the basis for the registered public accounting firm's conclusions regarding the reasonableness of those estimates;

adjustments arising from the audit that, in the registered public accounting firm's judgment, have a significant effect on the entity's financial reporting; and

disagreements, if any, with management over the application of accounting principles, the basis for management's accounting estimates and the disclosures in the financial statements.

Our registered public accounting firm also provided the audit committee with the written disclosures and the letter required by Independence Standards Board Standard No. 1 (Independence Discussions with Audit Committees). Independence Standards Board Standard No. 1 requires registered public accounting firms to disclose annually in writing all relationships that in the registered public accounting firm's professional opinion may reasonably be thought to bear on independence, confirm their perceived independence and engage in a discussion of their independence. The audit committee discussed with the registered public accounting firm the matters disclosed in this letter and their independence from us. The audit committee also considered whether the registered public

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accounting firm's provision of the other, non-audit related services to us, which are referred to in "Independent Auditor Fees and Related Matters" below, is compatible with maintaining such registered public accounting firm's independence.

Based on its discussions with management and our registered public accounting firm, our review of the representations and information provided by management, and the report of our registered public accounting firm, the audit committee recommended to our board of directors that the audited financial statements be included in Idera's annual report on Form 10-K for the year ended December 31, 2006.

AUDIT COMMITTEE

William S. Reardon, *Chairman*
C. Keith Hartley
Alison Taunton-Rigby

Registered Public Accounting Firm

The audit committee has selected Ernst & Young LLP to serve as our registered public accounting firm for the year ending December 31, 2007. Ernst & Young LLP has served as our registered public accounting firm starting with the year ended December 31, 2002.

Representatives of Ernst & Young will be present at the annual meeting to answer appropriate questions and they will have the opportunity to make a statement if they desire to do so.

Independent Auditor Fees and Other Matters

We paid Ernst & Young LLP a total of \$284,968 for professional services rendered for the year ended December 31, 2006 and \$216,063 for professional services rendered for the year ended December 31, 2005. The following table provides information about these fees.

Fee Category	2005	2006
Audit Fees	\$ 169,117	\$ 247,743
Audit-Related Fees	22,446	20,725
Tax Fees	24,500	16,500
All Other Fees		
Total Fees	\$ 216,063	\$ 284,968

Audit Fees

Audit fees consisted of fees for services associated with the 2005 and 2006 annual audits of our financial statements, the review of our quarterly reports on Form 10-Q and the interim financial statements included in the quarterly reports, the review of financial statements included in our filings with the SEC, including those related to the filing of registration statements and other professional services provided in connection with statutory and regulatory filings or engagements.

Audit-Related Fees

Audit-related fees consisted of fees for assurance and related services that are reasonably related to the performance of audits and reviews of our financial statements that are not reported under Audit Fees. These services include audits of our employee benefit plans and services provided in connection with Section 404 of the Sarbanes-Oxley Act.

Tax Fees

Tax fees consisted of fees for tax compliance, tax advice and tax planning services.

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All Other Fees

Ernst & Young LLP did not collect fees for any other services for 2005 or 2006.

Our audit committee believes that the non-audit services described above did not compromise Ernst & Young's independence. Our audit committee charter, which you can find in the Investor Center Committee Charters section of our website, www.iderapharma.com, requires that all proposals to engage Ernst & Young for services, and all proposed fees for these services, be submitted to the audit committee for approval before Ernst & Young may provide the services. None of the above fees were approved using the de minimus exception under the rules of the SEC.

Our audit committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by our registered public accounting firm. This policy generally provides that we will not engage our registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by the audit committee or the engagement is entered into pursuant to the pre-approval procedures described below.

From time to time, the audit committee may pre-approve specified types of services that are expected to be provided to us by its registered public accounting firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

CERTAIN TRANSACTIONS AND POLICIES ON RELATED PARTY TRANSACTIONS

Our board of directors is committed to upholding the highest legal and ethical conduct in fulfilling its responsibilities and recognizes that related party transactions can present a heightened risk of potential or actual conflicts of interest. Accordingly, as a general matter, it is our preference to avoid related party transactions.

In accordance with our audit committee charter, members of the audit committee, all of whom are independent directors, review and approve all related party transactions for which approval is required under applicable laws or regulations, including SEC and American Stock Exchange rules. Current SEC rules define a related party transaction to include any transaction, arrangement or relationship in which we are a participant and the amount involved exceeds \$120,000, and in which any of the following persons has or will have a direct or indirect interest:

our executive officers, directors or director nominees;

any person who is known to be the beneficial owner of more than 5% of our common stock;

any person who is an immediate family member, as defined under Item 404 of Regulation S-K, of any of our executive officers, directors or director nominees or beneficial owner of more than 5% of our common stock; or

any firm, corporation or other entity in which any of the foregoing persons is employed or is a partner or principal or in a similar position or in which such person, together with any other of the foregoing persons, has a 5% or greater beneficial ownership interest.

In addition, the audit committee reviews and investigates any matters pertaining to the integrity of management, including conflicts of interest and adherence to our Code of Business Conduct and Ethics. Under our Code of Business Conduct and Ethics, our directors, officers and employees are expected to avoid any relationship, influence or activity that would cause or even appear to cause a conflict of interest. Under our Code of Business Conduct and Ethics, a

director is required to promptly disclose to our board of directors any potential or actual conflict of interest involving him or her. In accordance with our Code of Business Conduct and Ethics, the board of directors will determine an appropriate resolution on a case-by-case basis. All directors must recuse themselves from any discussion or decision affecting their personal, business or professional interests.

Since January 1, 2006, we have entered into or engaged in the following transactions with the following directors, officers and stockholders who beneficially owned more than 5% of our outstanding common stock at the time of these transactions, as well as affiliates or immediate family members of those directors, officers and

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stockholders. We believe that the terms of the transactions described below were no less favorable than those that we could have obtained from unaffiliated third parties.

Youssef El Zein and Affiliates

Pursuant to an engagement letter dated March 24, 2006, we engaged Youssef El Zein, one of our directors, to assist us as a placement agent in securing a commitment from Biotech Shares Ltd. to purchase up to \$9.8 million of our common stock. For such services, we paid Mr. El Zein a commission of \$487,500, equal in value to 5% of the amount we received under the commitment.

Mr. El Zein is a director of Pillar Investment Ltd. and a director of Optima Life Sciences Limited. Pillar is the manager and investment advisor of Optima and holds all of the voting shares of Optima. In 2005, Optima purchased \$3,102,750 aggregate principal amount of our 4% convertible subordinated notes due April 30, 2008. In February 2007, in connection with our election to automatically convert such 4% notes into shares of our common stock, we issued to Optima 435,779 shares of our common stock and paid accrued interest of \$37,578 in cash.

Merck & Co., Inc.

In December 2006, we entered into an exclusive license and research collaboration agreement with Merck & Co., Inc. to research, develop and commercialize vaccine products containing our agonist compounds targeting toll-like receptors (TLR) 7, 8 and 9 in the licensed fields of oncology, infectious diseases and Alzheimer's disease. Under the terms of the agreement, we granted Merck worldwide exclusive rights to a number of our agonist compounds targeting TLR 7, 8 and 9 for use in combination with Merck's therapeutic and prophylactic vaccines under development in the licensed fields. There is no limit to the number of vaccines to which Merck can apply our agonists within the licensed fields. In addition, we agreed that we would not develop or commercialize, either directly or through a third party, any agonist targeting TLR 7, 8 or 9 for use in connection with vaccine products in the licensed fields. We also agreed with Merck to engage in a two-year research and development collaboration to generate novel agonists targeting TLR 7 and TLR 8 and incorporating both Merck and Idera chemistry for use in the licensed fields. Merck may extend the collaboration for two additional one-year periods.

Under the terms of the agreement,

Merck paid us a \$20 million upfront license fee;

Merck purchased 1,818,182 shares of our common stock for a price of \$5.50 per share resulting in an aggregate purchase price of \$10 million;

Merck agreed to fund the research and development collaboration;

Merck agreed to pay us milestone payments as follows:

up to \$165 million if vaccines containing our TLR9 agonist compounds are successfully developed and marketed in each of the oncology, infectious disease and Alzheimer's disease fields;

up to \$260 million if vaccines containing our TLR9 agonist compounds are successfully developed and marketed for follow-on indications in the oncology field and if vaccines containing our TLR 7 and 8 agonists are successfully developed and marketed in each of the oncology, infectious disease and Alzheimer's disease fields; and

if Merck develops and commercializes additional vaccines using our agonists, we would be entitled to receive additional milestone payments.

Merck agreed to pay us royalties on net product sales of vaccines using our TLR agonist technology that are developed and marketed.

Under the research and collaboration agreement, Merck is obligated to pay us royalties, on a product-by-product and country-by-country basis, until the later of the expiration of the patent rights licensed to Merck and the expiration of regulatory-based exclusivity for the vaccine product. If the patent rights and regulatory-based exclusivity expire in a particular country before the 10th anniversary of the product's first commercial sale in such

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country, Merck will continue to pay us royalties at a reduced royalty rate until such anniversary, except that Merck's royalty obligation will terminate upon the achievement of a specified market share in such country by a competing vaccine containing an agonist targeting the same toll-like receptor as that targeted by the agonist in the Merck vaccine. In addition, the applicable royalties may be reduced if Merck is required to pay royalties to third parties for licenses to intellectual property rights, which royalties exceed a specified threshold. Merck's royalty and milestone obligations may also be reduced if Merck terminates the agreement based on specified uncured material breaches by us. The agreement may be terminated by either party based upon specified uncured breaches by the other party or by Merck at any time after providing us with advance notice of termination.

Merck has agreed, subject to certain exceptions, that it will not sell any of the shares of our common stock acquired by it pursuant to the purchase agreement prior to December 8, 2007 and that, during the balance of the research and collaboration term, its ability to sell such shares will be subject to specified volume limitations. We also entered into a registration rights agreement with Merck and filed a registration statement with the SEC registering the resale of the shares of common stock issued and sold to Merck.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Based solely on our review of copies of reports filed by individuals and entities required to make filings pursuant to Section 16(a) of the Exchange Act or written representations from such individuals or entities, we believe that with the exception of the transactions listed in the next paragraph, during 2006 all filings required to be made by such individuals or entities were timely made in accordance with the Exchange Act.

As noted above, the following persons failed to timely file Forms 3 or 4 in connection with transactions effected during 2006:

William S. Reardon: one Form 4 covering one transaction

Timothy M. Sullivan: one Form 3 upon his promotion to executive officer

Paul C. Zamecnik: two Forms 4 covering two transactions

Biotech Shares, Ltd.: one Form 3 and two Forms 4 covering three transactions

By Order of the Board of Directors,

/s/ ROBERT G. ANDERSEN

Robert G. Andersen, *Secretary*

April 30, 2007

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IDERA PHARMACEUTICALS, INC.
2005 STOCK INCENTIVE PLAN*

1. Purpose

The purpose of this 2005 Stock Incentive Plan (the Plan) of Idera Pharmaceuticals, Inc., a Delaware corporation (the Company), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to align their interests with those of the Company's stockholders. Except where the context otherwise requires, the term Company shall include any of the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the Code) and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the Board).

2. Eligibility

All of the Company's employees, officers and directors and all of the Company's consultants and advisors that are natural persons are eligible to receive options, stock appreciation rights, restricted stock, restricted stock units and other stock-based awards (each, an Award) under the Plan. Each person who receives an Award under the Plan is deemed a Participant.

3. Administration and Delegation

(a) **Administration by Board of Directors.** The Plan will be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient to carry the Plan into effect and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board's sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award. No director or person acting pursuant to the authority delegated by the Board shall be liable for any action or determination relating to or under the Plan made in good faith.

* Reflects amendment to Plan approved by the Company's stockholders on June 7, 2006 and the eight-for-one reverse stock split effected on June 29, 2006. Also reflects the amendment to the plan approved by the Board of Directors on April 6, 2007 increasing the number of shares reserved

hereunder by
1,500,000
shares and
submitted to the
stockholders for
approval at the
2007 Annual
Meeting of
Stockholders.

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(b) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a Committee). All references in the Plan to the Board shall mean the Board or a Committee of the Board or the officers referred to in Section 3(c) to the extent that the Board's powers or authority under the Plan have been delegated to such Committee or officers.

(c) Delegation to Officers. To the extent permitted by applicable law, the Board may delegate to one or more officers of the Company the power to grant Awards to employees or officers of the Company or any of its present or future subsidiary corporations and to exercise such other powers under the Plan as the Board may determine, provided that the Board shall fix the terms of the Awards to be granted by such officers (including the exercise price of such Awards, which may include a formula by which the exercise price will be determined) and the maximum number of shares subject to Awards that the officers may grant; and provided further, however, that no officer shall be authorized to grant Awards to any executive officer of the Company (as defined by Rule 3b-7 under the Securities Exchange Act of 1934, as amended (the Exchange Act)) or to any officer of the Company (as defined by Rule 16a-1 under the Exchange Act).

4. Stock Available for Awards

(a) Number of Shares. Subject to adjustment under Section 9, Awards may be made under the Plan for up to two million six hundred twenty-five thousand (2,625,000) shares of common stock, \$0.001 par value per share, of the Company (the Common Stock). If any Award expires or is terminated, surrendered or canceled without having been fully exercised or is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at the original issuance price pursuant to a contractual repurchase right) or results in any Common Stock not being issued, the unused Common Stock covered by such Award shall again be available for the grant of Awards under the Plan. However, in the case of Incentive Stock Options (as hereinafter defined), the foregoing provisions shall be subject to any limitations under the Code. Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

(b) Sub-limits. Subject to adjustment under Section 9, the following sub-limits on the number of shares subject to Awards shall apply:

(1) Section 162(m) Per-Participant Limit. The maximum number of shares of Common Stock with respect to which Awards may be granted to any Participant under the Plan shall be one hundred twenty-five thousand (125,000) per calendar year. For purposes of the foregoing limit, the combination of an Option in tandem with an SAR (as each term is hereafter defined) shall be treated as a single Award. The per-Participant limit described in this Section 4(b)(1) shall be construed and applied consistently with Section 162(m) of the Code or any successor provision thereto, and the regulations thereunder (Section 162(m)).

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(2) Limit on Awards that Vest Based Upon the Passage of Time Alone. The maximum number of shares of Common Stock with respect to which Restricted Stock Awards and Other Stock Unit Awards that either require no purchase by the Participant or vest on the basis of the passage of time alone may be granted shall be sixty-two thousand five hundred (62,500).

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an Option) and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable. An Option which is not intended to be an Incentive Stock Option (as hereinafter defined) shall be designated a Nonstatutory Stock Option .

(b) Incentive Stock Options. An Option that the Board intends to be an incentive stock option as defined in Section 422 of the Code (an Incentive Stock Option) shall only be granted to employees of Idera Pharmaceuticals, Inc., any of Idera Pharmaceuticals, Inc.'s present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Code, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock Option or for any action taken by the Board pursuant to Section 10(f), including without limitation the conversion of an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify such exercise price in the applicable option agreement.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement; provided, however, that no Option will be granted for a term in excess of 10 years.

(e) No Reload Rights. No Option granted under the Plan shall contain any provision entitling the optionee to the automatic grant of additional Options in connection with any exercise of the original Option.

(f) Exercise of Option. Options may be exercised by delivery to the Company of a written notice of exercise signed by the proper person or by any other form of notice (including electronic notice) approved by the Board together with payment in full as specified in Section 5(g) for the number of shares for which the Option is exercised. Shares of Common Stock subject to the Option will be delivered by the Company following exercise either as soon as practicable or, subject to such conditions as the Board shall specify, on a deferred basis (with the Company's obligation to be evidenced by an instrument providing for future delivery of the deferred shares at the time or times specified by the Board).

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(g) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

(1) in cash, by check or by wire transfer, payable to the order of the Company;

(2) except as the Board may otherwise provide in an option agreement, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) for so long as the Common Stock is registered under the Exchange Act, by delivery of shares of Common Stock owned by the Participant valued at their fair market value as determined by (or in a manner approved by) the Board (Fair Market Value), provided (i) such method of payment is then permitted under applicable law, (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent permitted by applicable law and by the Board, by (i) delivery of a promissory note of the Participant to the Company on terms determined by the Board, or (ii) payment of such other lawful consideration as the Board may determine; or

(5) by any combination of the above permitted forms of payment.

(h) Substitute Options. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Options in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute Options may be granted on such terms as the Board deems appropriate in the circumstances, notwithstanding any limitations on Options contained in the other sections of this Section 5 or in Section 2. Substitute Options shall not count against the overall share limit set forth in Section 4(a), except as may be required by reason of Section 422 and related provisions of the Code.

6. Stock Appreciation Rights.

(a) General. A Stock Appreciation Right, or SAR, is an Award entitling the holder, upon exercise, to receive an amount in Common Stock determined by reference to appreciation, from and after the date of grant, in the fair market value of a share of Common Stock. The date as of which such appreciation or other measure is determined shall be the exercise date.

(b) Grants. Stock Appreciation Rights may be granted in tandem with, or independently of, Options granted under the Plan.

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(1) **Tandem Awards**. When Stock Appreciation Rights are expressly granted in tandem with Options, (i) the Stock Appreciation Right will be exercisable only at such time or times, and to the extent, that the related Option is exercisable (except to the extent designated by the Board in connection with a Reorganization Event) and will be exercisable in accordance with the procedure required for exercise of the related Option; (ii) the Stock Appreciation Right will terminate and no longer be exercisable upon the termination or exercise of the related Option, except to the extent designated by the Board in connection with a Reorganization Event; provided that a Stock Appreciation Right granted with respect to less than the full number of shares covered by an Option will not be reduced until the number of shares as to which the related Option has been exercised or has terminated is less than the number of shares covered by the Stock Appreciation Right; (iii) the Option will terminate and no longer be exercisable upon the exercise of the related Stock Appreciation Right; and (iv) the Stock Appreciation Right will be transferable only with the related Option.

(2) **Independent SARs**. A Stock Appreciation Right not expressly granted in tandem with an Option will become exercisable at such time or times, and on such conditions, as the Board may specify in the SAR Award.

(c) **Exercise**. Stock Appreciation Rights may be exercised by delivery to the Company of a written notice of exercise signed by the proper person or by any other form of notice (including electronic notice) approved by the Board, together with any other documents required by the Board.

7. Restricted Stock; Restricted Stock Units.

(a) **General**. The Board may grant Awards entitling recipients to acquire shares of Common Stock (Restricted Stock), subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award. Instead of granting Awards for Restricted Stock, the Board may grant Awards entitling the recipient to receive shares of Common Stock to be delivered at the time such shares of Common Stock vest (Restricted Stock Units) (Restricted Stock and Restricted Stock Units are each referred to herein as a Restricted Stock Award).

(b) **Terms and Conditions**. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for repurchase (or forfeiture) and the issue price, if any.

(c) **Stock Certificates**. Any stock certificates issued in respect of a Restricted Stock Award shall be registered in the name of the Participant and, unless otherwise determined by the Board, deposited by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the

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Participant or if the Participant has died, to the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death (the Designated Beneficiary). In the absence of an effective designation by a Participant, Designated Beneficiary shall mean the Participant's estate.

8. Other Stock-Based Awards.

Other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property, may be granted hereunder to Participants (Other Stock Unit Awards), including without limitation Awards entitling recipients to receive shares of Common Stock to be delivered in the future. Such Other Stock Unit Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock Unit Awards may be paid in shares of Common Stock or cash, as the Board shall determine. Subject to the provisions of the Plan, the Board shall determine the conditions of each Other Stock Unit Awards, including any purchase price applicable thereto.

9. Adjustments for Changes in Common Stock and Certain Other Events.

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under this Plan, (ii) the sub-limits set forth in Section 4(b), (iii) the number and class of securities and exercise price per share of each outstanding Option, (iv) the share- and per-share provisions of each Stock Appreciation Right, (v) the share- and per-share provisions and the repurchase price per share subject to each outstanding Restricted Stock Award and (vi) the share- and per-share-related provisions of each outstanding Other Stock Unit Award, shall be appropriately adjusted by the Company (or substituted Awards may be made, if applicable) to the extent determined by the Board.

(b) Reorganization Events.

(1) Definition. A Reorganization Event shall mean: (a) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (b) any exchange of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange transaction or (c) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock Awards. In connection with a Reorganization Event, the Board shall take any one or more of the following actions as to all or any outstanding Awards on such terms as the Board determines: (i) provide that Awards shall be assumed, or substantially equivalent Awards shall

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be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (ii) upon written notice to a Participant, provide that the Participant's unexercised Options or other unexercised Awards shall become exercisable in full and will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant within a specified period following the date of such notice, (iii) provide that outstanding Awards shall become realizable or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Reorganization Event, (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Reorganization Event (the Acquisition Price), make or provide for a cash payment to a Participant equal to (A) the Acquisition Price times the number of shares of Common Stock subject to the Participant's Options or other Awards (to the extent the exercise price does not exceed the Acquisition Price) minus (B) the aggregate exercise price of all such outstanding Options or other Awards, in exchange for the termination of such Options or other Awards, (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise price thereof) and (vi) any combination of the foregoing.

For purposes of clause (i) above, an Option shall be considered assumed if, following consummation of the Reorganization Event, the Option confers the right to purchase, for each share of Common Stock subject to the Option immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise of Options to consist solely of common stock of the acquiring or succeeding corporation (or an affiliate thereof) equivalent in value (as determined by the Board) to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event.

(3) Consequences of a Reorganization Event on Restricted Stock Awards. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company under each outstanding Restricted Stock Award shall inure to the benefit of the Company's successor and shall apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Reorganization Event in the same manner and to the same extent as they applied to the Common Stock subject to such Restricted Stock Award. Upon the occurrence of a Reorganization Event involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock Award or any other agreement between a Participant and the Company, all restrictions and

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conditions on all Restricted Stock Awards then outstanding shall automatically be deemed terminated or satisfied.

10. General Provisions Applicable to Awards

(a) Transferability of Awards. Except as the Board may otherwise determine or provide in an Award, Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an Incentive Stock Option, pursuant to a qualified domestic relations order, and, during the life of the Participant, shall be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees.

(b) Documentation. Each Award shall be evidenced in such form (written, electronic or otherwise) as the Board shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, retirement, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. Each Participant shall pay to the Company, or make provision satisfactory to the Company for payment of, any taxes required by law to be withheld in connection with an Award to such Participant. Except as the Board may otherwise provide in an Award, for so long as the Common Stock is registered under the Exchange Act, Participants may satisfy such tax obligations in whole or in part by delivery of shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value; provided, however, except as otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). Shares surrendered to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements. The Company may, to the extent permitted by law, deduct any such tax obligations from any payment of any kind otherwise due to a Participant.

(f) Amendment of Award. The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock

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Option to a Nonstatutory Stock Option, provided that the Participant's consent to such action shall be required unless the Board determines that the action, taking into account any related action, would not materially and adversely affect the Participant.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(h) Acceleration. The Board may at any time provide that any Award shall become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

(i) Performance Conditions.

(1) This Section 10(i) shall be administered by a Committee approved by the Board, all of the members of which are outside directors as defined by Section 162(m) (the Section 162(m) Committee).

(2) Notwithstanding any other provision of the Plan, if the Section 162(m) Committee determines, at the time a Restricted Stock Award or Other Stock Unit Award is granted to a Participant, that such Participant is, or may be as of the end of the tax year in which the Company would claim a tax deduction in connection with such Award, a Covered Employee (as defined in Section 162(m)), then the Section 162(m) Committee may provide that this Section 10(i) is applicable to such Award.

(3) If a Restricted Stock Award or Other Stock Unit Award is subject to this Section 10(i), then the lapsing of restrictions thereon and the distribution of cash or Shares pursuant thereto, as applicable, shall be subject to the achievement of one or more objective performance goals established by the Section 162(m) Committee, which shall be based on the relative or absolute attainment of specified levels of one or any combination of the following:

(a) earnings per share, (b) return on average equity or average assets with respect to a pre-determined peer group, (c) earnings, (d) earnings growth, (e) revenues, (f) expenses, (g) stock price, (h) market share, (i) return on sales, assets, equity or investment, (j) regulatory compliance, (k) achievement of balance sheet or income statement objectives, (l) total shareholder return, (m) net operating profit after tax, (n) pre-tax or after-tax income, (o) cash flow, (p) achievement of research, development, clinical or regulatory milestones, (q) product sales and (r) business development activities, and may be absolute in their terms or measured against or in relationship to other companies comparably, similarly or otherwise situated. Such performance goals may be adjusted to exclude any one or more of (i) extraordinary items, (ii)

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gains or losses on the dispositions of discontinued operations, (iii) the cumulative effects of changes in accounting principles, (iv) the writedown of any asset, and (v) charges for restructuring and rationalization programs. Such performance goals: (i) may vary by Participant and may be different for different Awards; (ii) may be particular to a Participant or the department, branch, line of business, subsidiary or other unit in which the Participant works and may cover such period as may be specified by the Section 162(m) Committee; and (iii) shall be set by the Section 162(m) Committee within the time period prescribed by, and shall otherwise comply with the requirements of, Section 162(m).

(4) Notwithstanding any provision of the Plan, with respect to any Restricted Stock Award or Other Stock Unit Award that is subject to this Section 10(i), the Section 162(m) Committee may adjust downwards, but not upwards, the cash or number of Shares payable pursuant to such Award, and the Section 162(m) Committee may not waive the achievement of the applicable performance goals except in the case of the death or disability of the Participant.

(5) The Section 162(m) Committee shall have the power to impose such other restrictions on Awards subject to this Section 10(i) as it may deem necessary or appropriate to ensure that such Awards satisfy all requirements for performance-based compensation within the meaning of Section 162(m)(4)(C) of the Code, or any successor provision thereto.

11. Miscellaneous

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares. Notwithstanding the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to such Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(c) Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board, but no Award may be granted unless and until the Plan has been approved by the Company's stockholders. No Awards shall be granted under the Plan after the completion of 10 years from the earlier of (i) the date on which the Plan was adopted by the

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Board or (ii) the date the Plan was approved by the Company's stockholders, but Awards previously granted may extend beyond that date.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time; provided that, to the extent determined by the Board, no amendment requiring stockholder approval under any applicable legal, regulatory or listing requirement shall become effective until such stockholder approval is obtained. No Award shall be made that is conditioned upon stockholder approval of any amendment to the Plan.

(e) Provisions for Foreign Participants. The Board may modify Awards or Options granted to Participants who are foreign nationals or employed outside the United States or establish subplans or procedures under the Plan to recognize differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters.

(f) Compliance With Code Section 409A. No Award shall provide for deferral of compensation that does not comply with Section 409A of the Code, unless the Board, at the time of grant, specifically provides that the Award is not intended to comply with Section 409A of the Code.

(g) Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than such state.

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**FOLD AND DETACH HERE
IDERA PHARMACEUTICALS, INC.**

Dear Stockholder:

Please take note of the important information enclosed within this Proxy Ballot. There are a number of issues related to the management and operation of your Company that require your immediate attention and approval. These are discussed in the enclosed proxy materials.

Your vote counts, and you are strongly encouraged to exercise your right to vote your shares.

Please mark the boxes on the proxy card to indicate how your shares shall be voted. Then sign and date the card, detach it and return your proxy vote in the enclosed postage paid envelope. Your vote must be received prior to the Annual Meeting of Stockholders to be held on June 13, 2007.

Thank you in advance for your prompt consideration of these matters.

Sincerely,

Idera Pharmaceuticals, Inc.

This Proxy when properly executed will be voted in the manner directed by the undersigned stockholder(s). If no indication is made, the proxies shall vote FOR the director nominees and FOR proposal number 2.

Please mark your votes as indicated in this example

A vote FOR the director nominees and FOR proposal number 2 is recommended by the board of directors.

1) Election of Class III Directors.

	FOR	WITHHELD	FOR ALL EXCEPT
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Nominees:

01 Dr. Sudhir Agrawal, 02 Mr. Youssef El Zein and 03 Dr. Alison Taunton-Rigby

If you do not wish your shares voted FOR a particular nominee, mark the

For All Except box and strike a line through the nominee(s) s name(s) as listed above. Your shares will be voted for the remaining nominee(s).

2. Approval of amendment to our 2005 Stock Incentive Plan to increase the number of shares of common stock authorized for issuance thereunder from 1,125,000 shares to 2,625,000 shares.

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mark box at right if an address change has been noted on reverse side of this card.

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In their discretion, the proxies are authorized to vote upon such other business as may properly come before the Annual Meeting or any adjournment thereof.

**PLEASE BE SURE TO SIGN
AND DATE THIS PROXY**

Signature

Signature

Date

Please sign this proxy exactly as your name appears hereon. Joint Owners should each sign personally. Trustees and other fiduciaries should indicate the capacity in which they sign. If a corporation or partnership, this signature should be that of an authorized officer who should state his or her title.

5 FOLD AND DETACH HERE 5

Vote by Internet or Telephone or Mail 24 Hours a Day, 7 Days a Week

Internet and telephone voting is available through 11:59 PM Eastern Time on the day prior to the annual meeting day. Your Internet or telephone vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed and returned your proxy card.

Internet

<http://www.proxyvoting.com/IDP>

Use the Internet to vote your proxy. Have your proxy card in hand when you access the web site.

OR

Telephone

1-866-540-5760

Use any touch-tone telephone to vote your proxy. Have your proxy card in hand when you call.

OR

Mail

Mark, sign and date your proxy card and return it in the enclosed postage-paid envelope.

If you vote your proxy by Internet or by telephone, you do NOT need to mail back your proxy card.

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**IDERA PHARMACEUTICALS, INC.
PROXY SOLICITED BY THE BOARD OF DIRECTORS
Annual Meeting of Stockholders June 13, 2007**

Those signing on the reverse side, revoking all prior proxies, hereby appoint(s) Dr. Sudhir Agrawal, Robert G. Andersen and Dr. Robert W. Karr or each or any of them with full power of substitution, as proxies for those signing on the reverse side to act and vote all shares of stock of Idera Pharmaceuticals, Inc. which the undersigned would be entitled to vote if personally present at the 2007 Annual Meeting of Stockholders of Idera Pharmaceuticals, Inc. and at any adjournments thereof as indicated upon all matters referred to on the reverse side and described in the Proxy Statement for the Meeting, and, in their discretion, upon any other matters which may properly come before the Meeting. Attendance of the undersigned at the Meeting or at any adjournment thereof will not be deemed to revoke this proxy unless those signing on the reverse side shall revoke this proxy in writing.

HAS YOUR ADDRESS CHANGED?

PLEASE VOTE, DATE AND SIGN ON

**OTHER SIDE AND RETURN
PROMPTLY IN
ENCLOSED ENVELOPE.**