

SCHEDULE 14A INFORMATION

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

AcelRx 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:

5. Total fee paid:

Fee paid previously with preliminary materials.

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

6. Amount Previously Paid:

7. Form, Schedule or Registration Statement No.:

8. Filing Party:

9. Date Filed:

ACELRX PHARMACEUTICALS, INC.
351 Galveston Drive
Redwood City, CA 94063
650-216-3500

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To Be Held On July 24, 2012

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of Stockholders of **ACELRX PHARMACEUTICALS, INC.**, a Delaware corporation (the "Company"). The meeting will be held on Tuesday, July 24, 2012 at 12:00 p.m. local time at our principal office located at 351 Galveston Drive, Redwood City, California 94063 for the following purposes:

1. To elect the Board's three nominees for director, to hold office until the 2015 Annual Meeting of Stockholders.
2. To ratify the selection by the Audit Committee of the Board of Directors of Ernst & Young LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2012.
3. To conduct any other business properly brought before the meeting.

These items of business are more fully described in the Proxy Statement accompanying this Notice.

The record date for the Annual Meeting is June 8, 2012. Only stockholders of record at the close of business on that date may vote at the meeting or any adjournment thereof.

Important Notice Regarding the Availability of Proxy Materials for the Shareholders' Meeting to Be Held on Tuesday, July 24, 2012 at 12:00 p.m. local time at our principal office located at 351 Galveston Drive, Redwood City, California 94063.

The proxy statement and annual report to shareholders are available at <https://materials.proxyvote.com/00444T>.

By Order of the Board of Directors

/s/ Thomas A. Schreck

Thomas A. Schreck
Chairman

Redwood City, California
June 22, 2012

You are cordially invited to attend the meeting in person. Whether or not you expect to attend the meeting, please complete, date, sign and return the enclosed proxy, or vote over the telephone or the internet as instructed in these materials, as promptly as possible in order to ensure your representation at the meeting. A return envelope (which is postage prepaid if mailed in the United States) has been provided for your convenience. Even if you have voted by proxy, you may still vote in person if you attend the meeting. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

ACELRX PHARMACEUTICALS, INC.
351 Galveston Drive
Redwood City, CA 94063

PROXY STATEMENT
FOR THE 2012 ANNUAL MEETING OF STOCKHOLDERS

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Why am I receiving these materials?

We have sent you these proxy materials because the Board of Directors of AcelRx Pharmaceuticals, Inc. (sometimes referred to as the “Company” or “AcelRx”) is soliciting your proxy to vote at the 2012 Annual Meeting of Shareholders, including at any adjournments or postponements of the meeting. You are invited to attend the annual meeting to vote on the proposals described in this proxy statement. However, you do not need to attend the meeting to vote your shares. Instead, you may simply complete, sign and return the enclosed proxy card, or follow the instructions below to submit your proxy over the telephone or through the internet.

We intend to mail these proxy materials on or about June 22, 2012 to all shareholders of record entitled to vote at the annual meeting.

How do I attend the annual meeting?

The meeting will be held on Tuesday, July 24, 2012 at 12:00 p.m. local time at 351 Galveston Drive Redwood City, CA 94063. Directions to the annual meeting may be found at www.acehrx.com. Information on how to vote in person at the annual meeting is discussed below.

Who can vote at the annual meeting?

Only stockholders of record at the close of business on June 8, 2012 will be entitled to vote at the annual meeting. On this record date, there were 22,625,000 shares of common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If on June 8, 2012 your shares were registered directly in your name with our transfer agent, Computershare Trust Company, N.A., then you are a stockholder of record. As a stockholder of record, you may vote in person at the meeting or vote by proxy. Whether or not you plan to attend the meeting, we urge you to fill out and return the enclosed proxy card or vote by proxy over the telephone or on the internet as instructed below to ensure your vote is counted.

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

If on June 8, 2012 your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in “street name” and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the annual meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the meeting unless you request and obtain a valid proxy from your broker or other agent.

What am I voting on?

There are two matters scheduled for a vote:

- Election of three directors; and
- Ratification of selection by the Audit Committee of the Board of Directors of Ernst & Young LLP as independent registered public accounting firm of the Company for its fiscal year ending December 31, 2012.

What if another matter is properly brought before the meeting?

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

How do I vote?

You may either vote "For" all the nominees to the Board of Directors or you may "Withhold" your vote for any nominee you specify. For each of the other matters to be voted on, you may vote "For" or "Against" or abstain from voting.

The procedures for voting are fairly simple:

Stockholder of Record: Shares Registered in Your Name

If you are a shareholder of record, you may vote in person at the annual meeting or vote by proxy using the enclosed proxy card or vote by proxy over the telephone, or vote by proxy through the internet. Whether or not you plan to attend the meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the meeting and vote in person even if you have already voted by proxy.

- To vote in person, come to the annual meeting and we will give you a ballot when you arrive.
- To vote using the proxy card, simply complete, sign and date the enclosed proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us before the annual meeting, we will vote your shares as you direct.
- To vote over the telephone, dial toll-free 1(800) 454-8683 using a touch-tone phone and follow the recorded instructions. You will be asked to provide the company number and control number from the enclosed proxy card. Your vote must be received by 11:59 p.m., Pacific Time on July 23, 2012 to be counted.
- To vote through the internet, go to <http://www.proxyvote.com> to complete an electronic proxy card. You will be asked to provide the company number and control number from the enclosed proxy card. Your vote must be received by 11:59 p.m., Pacific Time on July 23, 2012 to be counted.

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

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

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

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of June 8, 2012.

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

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, "For" the election of all three nominees for director, and "For" the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2012. If any other matter is properly presented at the meeting, your proxyholder (one of the individuals named on your proxy card) will vote your shares using his or her best judgment.

Who is paying for this proxy solicitation?

We will pay for the entire cost of soliciting proxies. In addition to these proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

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

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

Can I change my vote after submitting my proxy?

Stockholder of Record: Shares Registered in Your Name

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

- You may submit another properly completed proxy card with a later date.
- You may grant a subsequent proxy by telephone or through the internet.
- You may send a timely written notice that you are revoking your proxy to AcetRx's Secretary at 351 Galveston Drive, Redwood City, CA 94063.
- You may attend the annual meeting and vote in person. Simply attending the meeting will not, by itself, revoke your proxy.

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

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

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

When are stockholder proposals due for next year's annual meeting?

To be considered for inclusion in next year's proxy materials, your proposal must be submitted in writing by February 22, 2013, to AcetRx's Secretary at 351 Galveston Drive, Redwood City, CA 94063. If you wish to submit a proposal that is not to be included in next year's proxy materials or nominate a director, you must provide specified information to AcetRx's Secretary at 351 Galveston Drive, Redwood City, CA 94063 between March 26, 2013 and April 25, 2013, unless the date of our 2013 annual meeting of stockholders is before June 24, 2013 or after August 23, 2013, in which case such proposals shall be submitted no earlier than 120 days prior to the 2013 annual meeting of stockholders and no later than the later of (i) 90 days before the 2013 annual meeting of stockholders or (ii) ten days after notice of the date of the 2013 annual meeting of stockholders is publicly given. You are also advised to review our Bylaws, which contain additional requirements regarding advance notice of stockholder proposals and director nominations.

How are votes counted?

Votes will be counted by the inspector of election appointed for the meeting, who will separately count, for the proposal to elect directors, votes "For," "Withhold" and broker non-votes and, with respect to other proposals, votes "For" and "Against," abstentions and, if applicable, broker non-votes. Broker non-votes have no effect and will not be counted towards the vote total for any proposal.

What are "broker non-votes"?

Broker non-votes occur when a beneficial owner of shares held in "street name" does not give instructions to the broker or nominee holding the shares as to how to vote on matters deemed "non-routine." Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the broker or nominee holding the shares. If the beneficial owner does not provide voting instructions, the broker or nominee can still vote the shares with respect to matters that are considered to be "routine," but not with respect to "non-routine" matters. Under the rules and interpretations of the New York Stock Exchange ("NYSE"), "non-routine" matters are matters that may substantially affect the rights or privileges of stockholders, such as mergers, stockholder proposals, elections of directors (even if not contested) and executive compensation, including the advisory stockholders votes on executive compensation. Of the two proposals, only Proposal No. 2, the ratification of the selection by the Audit Committee of the Board of Directors of Ernst & Young LLP as the independent auditors of AcetRx for its fiscal year ending December 31, 2012, is a "routine" matter; the other proposal is "non-routine."

How many votes are needed to approve each proposal?

- For the election of directors, Proposal No. 1, the three nominees receiving the most "For" votes from the holders of shares present in person or represented by proxy and entitled to vote on the election of directors will be elected. Only votes "For" or "Withheld" will affect the outcome.
- To be approved, Proposal No. 2, ratification of the selection by the Audit Committee of the Board of Directors of Ernst & Young LLP as the Company's independent registered public accounting firm for its fiscal year ending December 31, 2012, must receive "For" votes from the holders of a majority of shares present in person or by proxy and entitled to vote. If you "Abstain" from voting, it will have the same effect as an "Against" vote.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding at least a majority of the outstanding shares entitled to vote are present at the meeting in person or represented by proxy. On the record date, there were 22,625,000 shares outstanding and entitled to vote. Thus, the holders of 11,312,501 shares must be present in person or represented by proxy at the meeting to have a quorum.

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

How can I find out the results of the voting at the annual meeting?

Preliminary voting results will be announced at the annual meeting. In addition, final voting results will be published in a current report on Form 8-K that we expect to file within four business days after the annual meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

What proxy materials are available on the internet?

The proxy statement, Form 10-K and annual report to stockholders are available at <https://materials.proxyvote.com/00444T>.

PROPOSAL 1

ELECTION OF DIRECTORS

CLASSIFIED BOARD

Our Board of Directors is divided into three classes. Two classes consist of three directors and one class consists of two directors. Each class has a three-year term. Vacancies on the Board may be filled only by persons elected by a majority of the remaining directors. A director elected by the Board to fill a vacancy in a class, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director's successor is duly elected and qualified.

The Board of Directors presently has eight members. There are three directors in the class whose term of office expires in 2012. Each of the nominees listed below, except for Mr. Edwards, was previously elected by the stockholders. Mr. Edwards was recommended for election to the Company's Board by Mr. Hoffman, a non-management director of the Company. If elected at the annual meeting, each of these nominees would serve until the 2015 annual meeting and until his or her successor has been duly elected and qualified, or, if sooner, until the director's death, resignation or removal. It is the Company's policy to encourage directors and nominees for director to attend the Annual Meeting.

Directors are elected by a plurality of the votes of the holders of shares present in person or represented by proxy and entitled to vote on the election of directors. The three nominees receiving the highest number of affirmative votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the three nominees named below. If any nominee becomes unavailable for election as a result of an unexpected occurrence, shares that would have been voted for that nominee will instead will be voted for the election of a substitute nominee proposed by AcelRx. Each person nominated for election has agreed to serve if elected. The Company's management has no reason to believe that any nominee will be unable to serve.

The following is a brief biography of each nominee and each director whose term will continue after the annual meeting.

NOMINEES FOR ELECTION FOR A THREE-YEAR TERM EXPIRING AT THE 2015 ANNUAL MEETING

Class I Directors

Guy P. Nohra, age 51, has served as our director since August 2006. Mr. Nohra co-founded Alta Partners, a venture capital firm investing in life science companies, in 1996, and has served as Managing Director of Alta Partners since 1996. Mr. Nohra was also a partner at Burr, Egan, Deleage & Co., a venture capital firm, which he joined in 1989. From January 1984 until June 1987, Mr. Nohra was Product Manager of Medical Products with Security Pacific Trading Corporation, a consumer and commercial bank. Currently, Mr. Nohra serves on the board of directors of numerous private companies, including Carbylan Biosurgery, Inc., Coapt Systems, PneumRx, Inc. and Vertiflex, Inc., and is the Chairman of the board of USGI Medical, Inc. In addition, Mr. Nohra previously served on the boards of directors of ATS Medical, Inc., a company focused on the manufacture of cardiac surgery products that was acquired by Medtronic, Inc., a medical device company, in 2010 and Cutera, Inc., a global medical device company. Mr. Nohra also serves on the board of directors of the Medical Device Manufacturing Association, a national trade organization that advocates for entrepreneurial medical technology companies. Mr. Nohra holds a B.A. in History from Stanford University and an M.B.A. from the University of Chicago. Mr. Nohra's medical technology and venture capital industry experience provides him with the qualifications and skills to serve as a director.

Thomas A. Schreck, age 54, has served as our Chairman since he co-founded our company in July 2005, and as our President and Chief Executive Officer from July 2005 until April 2010. Since June 2010, Mr. Schreck has been co-founder and Chief Executive Officer of SinuSys Corporation, a medical device company. Prior to July

2005, he served as a founding President, and then Chief Financial Officer and a director of DURECT Corporation, an emerging specialty pharmaceutical company he co-founded in June 1998. Prior to 1998, Mr. Schreck held various investment banking positions in the San Francisco Bay Area and London, including with Montgomery Securities and Manufacturers Hanover Limited. Mr. Schreck holds a B.A. in American Studies from Williams College. Mr. Schreck's historical knowledge of our company, his financial background and experience and his experience in the pharmaceutical industry provide him with the qualifications and skills to serve as a director.

Mark G. Edwards, age 54, has served as our director since September 2011. Mr. Edwards is Managing Director of Bioscience Advisors Inc., a biopharmaceutical consulting firm he founded in 2011. From July 2008 until December 2010, he was Managing Director and a Principal of Deloitte Recap LLC, a wholly-owned subsidiary of Deloitte Touche Tohmatsu, an audit and financial consulting services firm. Mr. Edwards was previously the Managing Director and founder of Recombinant Capital, Inc. (Recap), a consulting and database firm based in Walnut Creek, California, from 1988 until the sale of Recap to Deloitte in 2008. Prior to founding Recap in 1988, Mr. Edwards was Manager of Business Development at Chiron Corporation, a biotechnology company. He received his B.A. and M.B.A. degrees from Stanford University. Mr. Edwards' financial and business expertise, including his background as a business advisor to pharmaceutical and biotechnology companies, provides him with the qualifications and skills to serve as a director.

**THE BOARD OF DIRECTORS RECOMMENDS
A VOTE IN FAVOR OF EACH NAMED NOMINEE.**

DIRECTORS CONTINUING IN OFFICE UNTIL THE 2013 ANNUAL MEETING

Stephen J. Hoffman, Ph.D., M.D., age 58, has served as our director since February 2010. Dr. Hoffman has served as a managing director at Skyline Ventures, a venture capital firm, since May 2007. From January 2003 to March 2007, Dr. Hoffman was a general partner at TVM Capital, a venture capital firm. Prior to that, he served as President, Chief Executive Officer and a director of Allos Therapeutics, a biopharmaceutical company, from 1994 to 2002, where he remains Chairman of the board. From 1990 to 1994, Dr. Hoffman completed a fellowship in clinical oncology and a residency/fellowship in dermatology, both at the University of Colorado. Dr. Hoffman was the scientific founder of Somatogen Inc., a biotechnology company that was acquired by Baxter International, Inc., a global medical products and services company, in 1998, where he held the position of Vice President of Science and Technology from 1987 until 1990. He serves on the board of directors of Allos Therapeutics, Inc., a biopharmaceutical company, Concert Pharmaceuticals, Inc., a biotechnology company, Kai Pharmaceuticals, Inc., a biopharmaceutical company, Dicerna Pharmaceuticals, Inc., a biopharmaceutical company, Genocera Biosciences, Inc., a biotechnology company and Collegium Pharmaceuticals, Inc., a biopharmaceutical company. Previously, Dr. Hoffman served on the board of directors of Sirtris Pharmaceuticals, Inc., a pharmaceutical company that was acquired by GlaxoSmithKline, a global pharmaceutical company, in 2008. Dr. Hoffman holds a Ph.D. in bio-organic chemistry from Northwestern University and an M.D. from the University of Colorado School of Medicine. Dr. Hoffman's scientific, financial and business expertise, including his diversified background as an executive officer and investor in public pharmaceutical companies, provides him with the qualifications and skills to serve as a director.

Richard A. King, age 47, has served as our director and President and Chief Executive Officer since May 2010. From April 2009 until May 2010, Mr. King acted as an independent consultant to a number of private and public biotechnology and venture capital companies. From October 2008 to April 2009, Mr. King served as President and General Manager of Tercica, Inc., a biotechnology company that was acquired by Ipsen, SA in 2008, and from February 2008 to October 2008, Mr. King served as President and Chief Operating Officer of Tercica, Inc., and from February 2007 until February 2008, he served as Chief Operating Officer of Tercica, Inc. From January 2002 to October 2006, Mr. King served as Executive Vice President of Commercial Operations of Kos Pharmaceuticals, Inc., a pharmaceutical company that was acquired by Abbott Laboratories, a global, broad-based health care company, in 2006. From January 2000 to January 2002, Mr. King served as Senior Vice

President of Commercial Operations at Solvay Pharmaceuticals, a pharmaceutical company that was acquired by Abbott Laboratories in 2009. From April 1992 to January 2000, Mr. King held various marketing positions at SmithKline Beecham Pharmaceuticals, now known as GlaxoSmithKline, a global pharmaceutical company. Mr. King holds a B.Sc. in Chemical Engineering from University of Surrey and an M.B.A. from Manchester Business School. Mr. King's extensive experience as an executive officer of public pharmaceutical companies and his knowledge of the day-to-day operations of our company provide him with the qualifications and skills to serve as a director.

Pamela P. Palmer, M.D., Ph.D., age 49, has served as our director and Chief Medical Officer since she co-founded the company in July 2005. Dr. Palmer has been on faculty at the University of California, San Francisco since 1996 and is currently a Clinical Professor of Anesthesia and Perioperative Care. Dr. Palmer was Director of UCSF PainCARE-Center for Advanced Research and Education from 2005 to 2009, and was Medical Director of the UCSF Pain Management Center from 1999 to 2005. Dr. Palmer has been a consultant of Omeros Corporation, a biopharmaceutical company, since she co-founded that company in 1994. Dr. Palmer holds an M.D. from Stanford University and a Ph.D. from the Stanford Department of Neuroscience. Dr. Palmer's extensive clinical and scientific experience in the treatment of acute and chronic pain as well as historical knowledge of our company provide her with the qualifications and skills to serve as a director.

DIRECTORS CONTINUING IN OFFICE UNTIL THE 2014 ANNUAL MEETING

Howard B. Rosen, age 53, has served as our director since 2008. Since 2011, Mr. Rosen has served as a lecturer at the Stanford Graduate School of Business. Since 2008, Mr. Rosen has served as a consultant to several companies in the biotechnology industry and a lecturer in the Department of Chemical Engineering at Stanford University. Mr. Rosen served as interim President and Chief Executive Officer of Pearl Therapeutics, Inc., a company focused on developing combination therapies for the treatment of highly prevalent chronic respiratory diseases, from June 2010 to March 2011. From 2004 to 2008, Mr. Rosen was Vice President of Commercial Strategy at Gilead Sciences, Inc., a biopharmaceutical company. Mr. Rosen was President of ALZA Corporation, a pharmaceutical and medical systems company that merged with Johnson & Johnson, a global healthcare company, in 2001, from 2003 until 2004 and Vice President, Product Development of ALZA Corporation, from 2002 until 2003. Prior to that, from 1994 until 2002, Mr. Rosen held various positions at ALZA Corporation. From 1993 to 1994, Mr. Rosen managed the west coast practice of Integral, Inc., a consulting firm. From 1989 until 1993, Mr. Rosen was Director of Corporate Development at GenPharm International, Inc., a company focusing on transgenic animal technology that was acquired by Medarex, Inc., a biotechnology company, in 1997 and later acquired by Bristol-Myers Squibb Company, a global biopharmaceutical company, in 2009. Mr. Rosen is also a member of the board of directors of PavVax, Inc., a biotechnology company, CNS Therapeutics, Inc., a pharmaceutical company, Pearl Therapeutics, Inc., a company focused on developing combination therapies for the treatment of highly prevalent chronic respiratory diseases and Entrega, Inc., a company focused on delivering biopharmaceuticals orally. Previously, Mr. Rosen served on the board of directors of Pharsight Corporation, a company focused on providing software products and consulting services to pharmaceutical and biotechnology companies that was acquired by Tripos International, a company focused on drug discovery informatics products and services in 2008. Mr. Rosen also served on the board of directors of CoTherix, Inc., a biopharmaceutical company that was acquired by Actelion Pharmaceuticals Ltd, a biopharmaceutical company in 2007. Mr. Rosen holds a B.S. in Chemical Engineering from Stanford University, an M.S. in Chemical Engineering from the Massachusetts Institute of Technology and an M.B.A. from the Stanford Graduate School of Business. Mr. Rosen's experience in the biopharmaceutical industry, including his specific experience with commercialization of pharmaceutical products, provides him with the qualifications and skills to serve as a director.

Mark Wan, age 46, has served as our director since August 2006. Mr. Wan is a founding general partner of Three Arch Partners, a venture capital firm. Prior to co-founding Three Arch Partners in 1993, Mr. Wan was a general partner at Brentwood Associates, a private equity firm from 1987 until 1993. Since 1999, Mr. Wan has served on the board of directors of Epocrates, Inc., a company focused on providing mobile drug reference tools.

Mr. Wan also serves as a director of Biosensors International Group, Ltd. a company focused on the development, manufacture and marketing of medical devices for interventional cardiology and critical care procedures. Mr. Wan also serves on the board of directors of numerous private companies, including Ascend Health Corporation, Eleme Medical, Inc., Ingenuity Systems, Inc., TriReme Medical, Inc. and Quattro Vascular Pte Ltd. Mr. Wan holds a B.S. in Engineering and a B.A. in Economics from Yale University and an M.B.A. from the Stanford Graduate School of Business. Mr. Wan's financial experience and extensive knowledge of our company provides him with the qualifications and skills to serve as a director.

INFORMATION REGARDING THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

INDEPENDENCE OF THE BOARD OF DIRECTORS

Under the rules of the NASDAQ Stock Market, LLC, or NASDAQ, "independent" directors must comprise a majority of a listed company's board of directors within a specified period following that company's listing date in conjunction with its initial public offering ("IPO"). In addition, applicable NASDAQ rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating committees be independent within the meaning of applicable NASDAQ rules. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act.

Our Board of Directors undertook a review of the independence of each director and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. As a result of this review, our Board of Directors determined that all of our directors, other than Messrs. King and Schreck and Dr. Palmer, qualify as "independent" directors within the meaning of the NASDAQ rules. Accordingly, a majority of our directors are independent, as required under applicable NASDAQ rules. In making this determination, our Board of Directors considered Mr. Nohra's affiliation with Alta Partners, one of our stockholders, Dr. Hoffman's affiliation with Skyline Ventures, one of our stockholders and Mr. Wan's affiliation with Three Arch Partners, one of our stockholders. Our non-employee directors have been meeting, and we anticipate that they will continue to meet, in regularly scheduled executive sessions at which only non-employee directors are present.

BOARD LEADERSHIP STRUCTURE

Our Board of Directors has a Chairman, Mr. Schreck, who has authority, among other things, to preside over Board meetings, including meetings of the independent directors. Accordingly, the Chairman has substantial ability to shape the work of our Board. The Company believes that separation of the roles of Chairman and Chief Executive Officer reinforces the independence of our Board in its oversight of the business and affairs of the Company. However, no single leadership model is right for all companies and at all times. Our Board recognizes that depending on the circumstances, other leadership models, such as combining the role of Chairman with the role of Chief Executive Officer, might be appropriate. Accordingly, the Board may periodically review its leadership structure.

ROLE OF THE BOARD IN RISK OVERSIGHT

Our Board is generally responsible for the oversight of corporate risk in its review and deliberations relating to our activities and has determined that our principal source of risk falls into two categories, financial and product development. The Audit Committee oversees management of financial risks; our Board regularly reviews information regarding our cash position, liquidity and operations, as well as the risks associated with each. The Board regularly reviews plans, results and potential risks related to our lead therapeutic development programs and other preclinical programs as well as financial and strategic risk related to our operations.

In addition, our Nominating and Corporate Governance Committee monitors the effectiveness of our corporate governance guidelines and policies and manages risks associated with the independence of the Board and potential conflicts of interest. Our Compensation Committee oversees risk management as it relates to our

compensation plans, policies and practices for all employees including executives particularly whether our compensation programs may create incentives for our employees to take excessive or inappropriate risks which could have a material adverse effect on the Company. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, the entire Board is regularly informed through committee reports about such risks.

MEETINGS OF THE BOARD OF DIRECTORS

The Board of Directors met nine times during the last fiscal year. All directors attended at least 75% of the aggregate number of meetings of the Board and of the committees on which they served, held during the portion of the last fiscal year for which they were directors or committee members, respectively.

INFORMATION REGARDING COMMITTEES OF THE BOARD OF DIRECTORS

The Board has three committees: an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee, each of which has the composition and responsibilities described below.

Audit Committee

The Audit Committee of the Board of Directors was established by the Board in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), to oversee the Company's corporate accounting and financial reporting processes and audits of its financial statements. For this purpose, the Audit Committee performs several functions. The Audit Committee evaluates the performance of and assesses the qualifications of the independent auditors; determines and approves the engagement of the independent auditors; determines whether to retain or terminate the existing independent auditors or to appoint and engage new independent auditors; reviews and approves the retention of the independent auditors to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent auditors on the Company's audit engagement team as required by law; review and approves or rejects transactions between the company and any related persons; confers with management and the independent auditors regarding the effectiveness of internal controls over financial reporting; establishes procedures, as required under applicable law, for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters; and meets to review the Company's annual audited financial statements and quarterly financial statements with management and the independent auditor, including a review of the Company's disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations."

The Audit Committee is composed of three directors: Messrs. Edwards, Hoffman and Rosen. Mr. Edwards serves as Chairman of the Audit Committee. Mr. Edwards joined the Audit Committee in September 2011 and was appointed the Chairman of the Audit Committee at that time. Mr. Rosen served as the Chairman of the Audit Committee prior to Mr. Edwards appointment. Mr. Nohra served on the Audit Committee from January 2011 to September 2011. The Audit Committee met four times during the fiscal year. The Audit Committee has adopted a written charter that is available to stockholders on the Company's website at www.aceirx.com.

The Board of Directors reviews the NASDAQ listing standards definition of independence for Audit Committee members on an annual basis and has determined that all members of the Company's Audit Committee are independent (as independence is currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the NASDAQ listing standards).

The Board of Directors has also determined that Mr. Edwards qualifies as an "audit committee financial expert," as defined in applicable SEC rules. The Board made a qualitative assessment of Mr. Edwards' level of knowledge and experience based on a number of factors, including his formal education and experience as a business development and corporate finance consultant.

Report of the Audit Committee of the Board of Directors ¹

The Audit Committee has reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2011 with management of the Company. The Audit Committee has discussed with the independent registered public accounting firm the matters required to be discussed by Statement on Auditing Standards No. 61, as amended (AICPA, *Professional Standards*, Vol. 1. AU section 380), as adopted by the Public Company Accounting Oversight Board ("PCAOB") in Rule 3200T. The Audit Committee has also received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent accountants' communications with the audit committee concerning independence, and has discussed with the independent registered public accounting firm the accounting firm's independence. Based on the foregoing, the Audit Committee has recommended to the Board of Directors that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2011.

Mr. Mark G. Edwards
Mr. Stephen J. Hoffman, Ph.D., M.D.
Mr. Howard B. Rosen

Compensation Committee

The Compensation Committee is composed of two directors: Messrs. Nohra and Wan. Mr. Nohra serves as Chairman of the Compensation Committee. All members of the Company's Compensation Committee are independent (as independence is currently defined in Rule 5605(a)(2) of the NASDAQ listing standards. The Compensation Committee met three times during the fiscal year. The Compensation Committee has adopted a written charter that is available to stockholders on the Company's website at www.acebrx.com.

The Compensation Committee of the Board of Directors acts on behalf of the Board to review, recommend for adoption and oversee the Company's compensation strategy, policies, plans and programs, including:

- approving or recommending for approval to our Board of Directors the compensation and other terms of employment of our executive officers;
- approving or recommending to our Board of Directors performance goals and objectives relevant to the compensation of our executive officers and assessing their performance against these goals and objectives;
- evaluating and approving the equity incentive plans, compensation plans and similar programs, as well as modification or termination of existing plans and programs;
- evaluating and recommending to our Board of Directors the type and amount of compensation to be paid or awarded to Board members;
- administering our equity incentive plans;
- establishing policies with respect to equity compensation arrangements;
- reviewing the competitiveness of our executive compensation programs and evaluating the effectiveness of our compensation policy and strategy in achieving expected benefits to us;
- approving or recommending to our Board of Directors the terms of any employment agreements, severance arrangements, change in control protections and any other compensatory arrangements for our executive officers;

¹ The material in this report is not "soliciting material," is not deemed "filed" with the Commission and is not to be incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

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- reviewing with management our disclosures under the caption “Compensation Discussion and Analysis,” if required, and recommending to the full Board its inclusion in our reports to be filed with the SEC;
 - preparing the Compensation Committee report, if required, for our annual proxy statement;
 - reviewing the adequacy of our Compensation Committee charter on a periodic basis; and
 - reviewing and evaluating, at least annually, the performance of the Compensation Committee.

Compensation Committee Processes and Procedures

Typically, the Compensation Committee meets at least once annually and with greater frequency if necessary. The agenda for each meeting is usually developed by the Chair of the Compensation Committee, in consultation with the Chief Executive Officer. The Compensation Committee meets regularly in executive session. However, from time to time, various members of management and other employees as well as outside advisors or consultants may be invited by the Compensation Committee to make presentations, to provide financial or other background information or advice or to otherwise participate in Compensation Committee meetings. The Chief Executive Officer may not participate in, or be present during, any deliberations or determinations of the Compensation Committee regarding his compensation or individual performance objectives. The charter of the Compensation Committee grants the Compensation Committee full access to all books, records, facilities and personnel of the Company, as well as authority to obtain, at the expense of the Company, advice and assistance from internal and external legal, accounting or other advisors and consultants and other external resources that the Compensation Committee considers necessary or appropriate in the performance of its duties. In particular, the Compensation Committee has the sole authority to retain compensation consultants to assist in its evaluation of executive and director compensation, including the authority to approve the consultant’s reasonable fees and other retention terms. Additionally, under its charter, the Compensation Committee may form, and delegate authority to, subcommittees, as appropriate.

Historically, the Compensation Committee or the Board of Directors has made most of the significant adjustments to annual compensation, determined bonus and equity awards and established new performance objectives at one or more meetings typically held during the first quarter of the year. However, the Compensation Committee also considers matters related to individual compensation, such as compensation for new executive hires, as well as high-level strategic issues, such as the efficacy of the Company’s compensation strategy, potential modifications to that strategy and new trends, plans or approaches to compensation, at various meetings throughout the year. Generally, the Compensation Committee’s process comprises two related elements: the determination of compensation levels and the establishment of performance objectives for the current year. For executives other than the Chief Executive Officer, the Compensation Committee solicits and considers evaluations and recommendations submitted to the Committee by the Chief Executive Officer. In the case of the Chief Executive Officer, the evaluation of his performance is conducted by the Compensation Committee, which determines any adjustments to his compensation as well as awards to be granted. For all executives and directors as part of its deliberations, the Compensation Committee may review and consider, as appropriate, materials such as financial reports and projections, operational data, tax and accounting information, tally sheets that set forth the total compensation that may become payable to executives in various hypothetical scenarios, executive and director stock ownership information, company stock performance data, analyses of historical executive compensation levels and current Company-wide compensation levels and recommendations of the Compensation Committee’s compensation consultant, including analyses of executive and director compensation paid at other companies identified by the consultant.

During the past fiscal year, the Compensation Committee engaged independent compensation consultant, Towers Watson, to provide the Compensation Committee with an analysis of our executive officer compensation. The Compensation Committee requested that Towers Watson:

- evaluate the efficacy of the Company’s existing compensation strategy and practices in supporting and reinforcing the Company’s long-term strategic goals; and

-
- assist in refining the Company's compensation strategy and in developing and implementing an executive compensation program to execute that strategy.

As part of its engagement, Towers Watson was requested by the Compensation Committee to develop a comparative group of companies and to perform analyses of competitive performance and compensation levels for that group. At the request of the Compensation Committee, Towers Watson also conducted individual interviews with members of the Compensation Committee and senior management to learn more about the Company's business operations and strategy, key performance metrics and strategic goals, as well as the labor markets in which the Company competes. Towers Watson ultimately developed benchmarking metrics and recommendations that were presented to the Compensation Committee for its consideration in determining executive officer compensation. Following an active dialogue with Towers Watson, the Compensation Committee recommended that the Board of Directors approve executive compensation that fell within or below the recommendations of Towers Watson.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee of the Board of Directors is responsible for identifying, reviewing and evaluating candidates to serve as directors of the Company (consistent with criteria approved by the Board), reviewing and evaluating incumbent directors, recommending to the Board for selection candidates for election to the Board of Directors, making recommendations to the Board regarding the membership of the committees of the Board, and assessing the performance of the Board.

During fiscal 2011, the Nominating and Corporate Governance Committee was composed of three directors: Dr. Hoffman and Messrs. Schreck and Wan. Mr. Wan served as Chairman of the Nominating and Corporate Governance Committee. Our Board of Directors has determined that Dr. Hoffman and Mr. Wan are independent (as independence is currently defined in Rule 5605(a)(2) of the NASDAQ listing standards). With respect to Mr. Schreck, we relied on the one year phase-in period for newly-listed companies from the NASDAQ listing requirement that all directors on the Nominating and Corporate Governance Committee be independent. Effective June 2012, Mr. Schreck resigned from the Nominating and Corporate Governance Committee. Accordingly, the Nominating and Corporate Governance Committee is now composed of two independent directors: Dr. Hoffman and Mr. Wan. Mr. Wan continues to serve as Chairman. The Nominating and Corporate Governance Committee did not meet during fiscal 2011, but instead acted by written consent. The Nominating and Corporate Governance Committee has adopted a written charter that is available to stockholders on the Company's website and www.acelrx.com.

The Nominating and Corporate Governance Committee believes that candidates for director should have certain minimum qualifications, including the ability to read and understand basic financial statements, being over 21 years of age and having the highest personal integrity and ethics. The Nominating and Corporate Governance Committee also intends to consider such factors as possessing relevant expertise upon which to be able to offer advice and guidance to management, having sufficient time to devote to the affairs of the Company, demonstrated excellence in his or her field, having the ability to exercise sound business judgment and having the commitment to rigorously represent the long-term interests of the Company's stockholders. However, the Nominating and Corporate Governance Committee retains the right to modify these qualifications from time to time. Candidates for director nominees are reviewed in the context of the current composition of the Board, the operating requirements of the Company and the long-term interests of stockholders. In conducting this assessment, the Nominating and Corporate Governance Committee typically considers diversity, age, skills and such other factors as it deems appropriate given the current needs of the Board and the Company, to maintain a balance of knowledge, experience and capability. In the case of incumbent directors whose terms of office are set to expire, the Nominating and Corporate Governance Committee reviews these directors' overall service to the Company during their terms, including the number of meetings attended, level of participation, quality of performance and any other relationships and transactions that might impair the directors' independence. In the case of new director candidates, the Nominating and Corporate Governance Committee also determines whether

the nominee is independent for NASDAQ purposes, which determination is based upon applicable NASDAQ listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The Nominating and Corporate Governance Committee then uses its network of contacts to compile a list of potential candidates, but may also engage, if it deems appropriate, a professional search firm. The Nominating and Corporate Governance Committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the Board. The Nominating and Corporate Governance Committee meets to discuss and consider the candidates' qualifications and then selects a nominee for recommendation to the Board by majority vote.

The Nominating and Corporate Governance Committee of the board of directors, to date, has not adopted a formal policy with regard to the consideration of director candidates recommended by stockholders and will consider director candidates recommended by stockholders on a case-by-case basis, as appropriate. The Nominating and Corporate Governance Committee does not intend to alter the manner in which it evaluates candidates, including the minimum criteria set forth above, based on whether or not the candidate was recommended by a stockholder. To date, the Nominating and Corporate Governance Committee has not received any such nominations nor has it rejected a director nominee from a stockholder or stockholders holding more than 5% of our voting stock. Stockholders who wish to recommend individuals for consideration by the Nominating and Corporate Governance Committee to become nominees for election to the Board may do so by delivering a written recommendation to our Secretary at the following address: 351 Galveston Drive, Redwood City, CA 94063, at least 120 days prior to the anniversary date of the mailing of the Company's proxy statement for the last Annual Meeting of Stockholders. Submissions must include the full name of the proposed nominee, a description of the proposed nominee's business experience for at least the previous five years, complete biographical information, a description of the proposed nominee's qualifications as a director and a representation that the nominating stockholder is a beneficial or record holder of the Company's stock and has been a holder for at least one year. Any such submission must be accompanied by the written consent of the proposed nominee to be named as a nominee and to serve as a director if elected.

STOCKHOLDER COMMUNICATIONS WITH THE BOARD OF DIRECTORS

Historically, the Company has not provided a formal process related to stockholder communications with the Board. Nevertheless, every effort has been made to ensure that the views of stockholders are heard by the Board or individual directors, as applicable, and that appropriate responses are provided to stockholders in a timely manner. The Company believes its responsiveness to stockholder communications to the Board has been excellent. Nevertheless, during the upcoming year the Nominating and Corporate Governance Committee will give full consideration to the adoption of a formal process for stockholder communications with the Board and, if adopted, publish it promptly and post it to the Company's website.

CODE OF ETHICS

The Company has adopted the AcelRx Pharmaceuticals, Inc. Code of Business Conduct and Ethics that applies to all officers, directors and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. The Code of Business Conduct and Ethics is available on our website at www.acerlx.com. Stockholders may request a free copy of the Code of Business Conduct and Ethics by submitting a written request to: AcelRx Pharmaceuticals, Inc., Attention: Investor Relations, 351 Galveston Drive, Redwood City, CA 94063. If we make any substantive amendments to the Code of Business Conduct and Ethics or grant any waiver from a provision of the Code of Business Conduct and Ethics to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on our website.

PROPOSAL 2

RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee of the Board of Directors has selected Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2012 and has further directed that management submit the selection of independent registered public accounting firm for ratification by the stockholders at the annual meeting. Ernst & Young LLP has audited the Company's financial statements for fiscal 2010 and 2011. Representatives of Ernst & Young LLP are expected to be present at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

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

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

PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table represents aggregate fees billed to our company for the fiscal years ended December 31, 2011 and 2010 by Ernst & Young LLP, our independent registered public accounting firm:

	Fiscal Year Ended	
	2011	2010
Audit Fees	\$435,825	\$1,220,000
Audit-Related Fees	—	—
Tax Fees	—	—
All Other Fees	—	—
Total Fees	\$435,825	\$1,220,000

Audit Fees: Consists of fees for professional services rendered for the audit of our financial statements, review of interim financial statements, assistance with registration statements filed with the SEC and services that are normally provided by Ernst & Young LLP in connection with statutory and regulatory filings or engagements. Related to the year ended December 31, 2010, fees of \$890,000 were billed in connection with the filing of our Registration Statements on Form S-1.

All of the fees described above were approved by the Audit Committee.

Pre-Approval Policies and Procedures

Our Audit Committee pre-approves all audit and permissible non-audit services provided by Ernst & Young LLP. These services may include audit services, audit-related services, tax services and other services. Pre-approval

may be given as part of the Audit Committee's approval of the scope of the engagement of the independent registered public accounting firm or on an individual explicit case-by-case basis.

In connection with the audit of our 2011 financial statements, we entered into an engagement agreement with Ernst & Young LLP which sets forth the terms by which Ernst & Young LLP will perform audit and interim services for us. That agreement is subject to alternative dispute resolution procedures and an exclusion of punitive damages.

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

**SECURITY OWNERSHIP OF
CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth certain information regarding the ownership of our common stock as of June 1, 2012 by: (i) each director and nominee; (ii) each named executive officer; (iii) all of our executive officers and directors as a group; and (iv) all those known by us to be beneficial owners of more than five percent of our common stock.

Name of Beneficial Owner	Beneficial Ownership ⁽¹⁾	
	Number of Shares	% of Total
5% Stockholders:		
Funds affiliated with Three Arch Entities ⁽²⁾	7,950,123	35.14%
Funds affiliated with Skyline Venture Partners ⁽³⁾	4,171,933	18.44%
Funds affiliated with Alta Partners ⁽⁴⁾	2,794,907	12.35%
Entities affiliated with Deerfield ⁽⁵⁾	1,612,556	7.1%
Named Executive Officers and Directors:		
Richard A. King ⁽⁶⁾	379,509	1.68%
Jim H. Welch ⁽⁷⁾	83,577	0.37%
Pamela P. Palmer, M.D., Ph.D. ⁽⁸⁾	646,008	2.86%
Badri Dasu ⁽⁹⁾	110,232	0.49%
Lawrence G. Hamel ⁽¹⁰⁾	147,576	0.65%
Thomas A. Schreck ⁽¹¹⁾	636,911	2.82%
Mark A. Wan ⁽¹²⁾	7,950,123	35.14%
Stephen J. Hoffman, Ph.D., M.D. ⁽¹³⁾	4,171,933	18.44%
Guy P. Nohra ⁽¹⁴⁾	2,794,907	12.35%
Howard B. Rosen ⁽¹⁵⁾	38,915	0.17%
Mark G. Edwards ⁽¹⁶⁾	54,166	0.24%
All executive officers and directors as a group (11 persons) ⁽¹⁷⁾	17,013,857	75.20%

⁽¹⁾ This table is based upon information supplied by officers, directors and principal stockholders. Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, we believe that each of the stockholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned. Applicable percentages are based on 22,625,000 shares outstanding on June 1, 2012, adjusted as required by rules promulgated by the SEC. The number of shares beneficially owned includes shares of common stock issuable pursuant to the exercise of stock options that are exercisable within 60 days of June 1, 2012. Shares issuable pursuant to the exercise of stock options that are exercisable within 60 days of June 1, 2012 are deemed to be outstanding and beneficially owned by the person to whom such shares are issuable for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

⁽²⁾ Includes 199,174 shares held by Three Arch Associates III, L.P., 87,408 shares held by Three Arch Associates IV, L.P., 3,704,712 shares held by Three Arch Partners III, L.P. and 3,958,829 shares held by Three Arch Partners IV, L.P. The voting and dispositive decisions with respect to the shares held by Three Arch Associates III, L.P. and Three Arch Partners III, L.P., are made by the following Managing Members of their general partner, Three Arch Management III, L.L.C.: Mark Wan and Wilfred Jaeger, each of whom disclaims beneficial ownership of such shares. The voting and dispositive decisions with respect to the shares held by Three Arch Partners IV, L.P. and Three Arch Associates IV, L.P. are made by the following Managing Members of their general partner, Three Arch Management IV, L.L.C.: Mark Wan and Wilfred Jaeger, each of whom disclaims beneficial ownership of such shares. The address for the funds affiliated with Three Arch Partners is 3200 Alpine Road, Portola Valley, CA 94028.

- (3) The 4,171,933 shares are held by Skyline Venture Partners Qualified Purchaser Fund IV, L.P. John G. Freund and Yasunori Kaneko are the Managing Members of Skyline Venture Management IV, LLC, which is the general partner of Skyline Venture Partners Qualified Purchaser Fund IV, L.P., and as such Drs. Freund and Kaneko may be deemed to share voting and dispositive power with respect to all shares of common stock held by Skyline Venture Partners Qualified Purchaser Fund IV, L.P. In addition, Dr. Hoffman, one of our directors, is a Managing Director of Skyline Ventures and as such may be deemed to share voting and dispositive power with respect to all shares of common stock held by Skyline Venture Partners Qualified Purchasers Fund IV, L.P. Each of Drs. Freund, Kaneko and Hoffman disclaims beneficial ownership of such shares. The address for the funds affiliated with Skyline Venture Partners is 525 University Avenue, Ste. 520, Palo Alto, CA 94301.
- (4) The 2,794,907 shares are held by ACP IV, L.P., or ACPIV. ACP IV, LLC, or ACMPIV, is the general partner of ACPIV. Dan Janney, David Mack and Guy Nohra are directors of ACMPIV and they exercise shared voting and investment power with respect to the securities held by ACPIV. Each of Messrs. Janney, Mack and Nohra disclaims beneficial ownership of such securities. The address for funds affiliated with Alta Partners is One Embarcadero Center 37th Floor, San Francisco, CA 94111.
- (5) The shares reported on this table represent shares of common stock held by Deerfield Special Situations Fund, L.P. (672,435) and Deerfield Special Situations Fund International Limited (940,121). James E. Flynn may be deemed to beneficially own the shares of common stock held by all of the foregoing entities; Deerfield Capital, L.P. may be deemed to beneficially own the shares of common stock held by Deerfield Special Situations Fund, L.P.; and Deerfield Management Company, L.P. may be deemed to beneficially own the shares of common stock held by Deerfield Special Situations Fund International Limited. The principal business office of Deerfield Capital, L.P., Deerfield Special Situations Fund, L.P., Deerfield Management Company, L.P. and James E. Flynn is 780 Third Avenue, 37th Floor, New York, New York 10017. The principal business office of Deerfield Special Situations Fund International Limited is c/o Citi Hedge Fund Services (B.V.I.), Bison Court, P.O. Box 3460, Road Town, Tortola, British Virgin Islands. The foregoing information is based solely on a Schedule 13G filed with the SEC on June 7, 2012, which provides information as of June 1, 2012.
- (6) Includes 307,730 shares issuable pursuant to stock options exercisable within 60 days of June 1, 2012.
- (7) Includes 65,624 shares issuable pursuant to stock options exercisable within 60 days of June 1, 2012.
- (8) Includes 347,395 shares issuable pursuant to stock options exercisable within 60 days of June 1, 2012.
- (9) Includes 102,342 shares issuable pursuant to stock options exercisable within 60 days of June 1, 2012.
- (10) Includes 132,206 shares issuable pursuant to stock options exercisable within 60 days of June 1, 2012.
- (11) Includes 291,406 shares issuable pursuant to stock options exercisable within 60 days of June 1, 2012, and 16,482 shares held in trust for Mr. Schreck's children. Mr. Schreck disclaims beneficial ownership of the shares held in trust for Mr. Schreck's children.
- (12) Mr. Wan is a managing partner of Three Arch Management III, L.L.C. and Three Arch Management IV, L.L.C., and in such capacities he may be deemed to beneficially own the shares owned by the funds affiliated with Three Arch Partners. Mr. Wan disclaims beneficial ownership of these shares. The address of Mr. Wan is c/o Three Arch Partners, 3200 Alpine Road, Portola Valley, CA 94028.
- (13) Dr. Hoffman, one of our directors, is a Managing Director of Skyline Ventures and as such may be deemed to share voting and dispositive power with respect to all shares of common stock held by Skyline Venture Partners Qualified Purchasers Fund IV, L.P. Dr. Hoffman disclaims beneficial ownership of such shares. The address for Dr. Hoffman is c/o Skyline Ventures, 525 University Avenue, Suite 520, Palo Alto, CA 94301.
- (14) Mr. Nohra is a director of ACMPIV, and in such capacity he may be deemed to beneficially own the shares owned by ACPIV. Mr. Nohra disclaims beneficial ownership of these shares. The address for Mr. Nohra is c/o Alta Partners, One Embarcadero Center 37th Floor, San Francisco, CA 94111.
- (15) Represents 36,718 shares issuable pursuant to stock options exercisable within 60 days of June 1, 2012.
- (16) Includes 4,166 shares issuable pursuant to stock options exercisable within 60 days of June 1, 2012.
- (17) Includes 1,287,587 shares issuable pursuant to stock options exercisable within 60 days of June 1, 2012.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, requires our directors and executive officers, and persons who own more than ten percent of a registered class of our equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of common stock and other equity securities of our company. Officers, directors and greater than ten percent stockholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file.

To our knowledge, based solely on a review of the copies of such reports furnished to us and written representations that no other reports were required, during the fiscal year ended December 31, 2011, our officers, directors and greater than ten percent beneficial owners complied with all applicable Section 16(a) filing requirements, except that two reports, covering an aggregate of two transactions, were filed late by Mr. Hamel and Mr. Dasu.

EXECUTIVE COMPENSATION

Executive Officers of the Registrant

The following table sets forth certain information concerning our executive officers as of May 31, 2012:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Richard A. King	47	Director, President and Chief Executive Officer
James H. Welch	54	Chief Financial Officer
Pamela P. Palmer, M.D., Ph.D.	49	Director, Chief Medical Officer and Co-Founder
Lawrence G. Hamel	60	Chief Development Officer
Badri Dasu	49	Chief Engineering Officer

Richard A. King. Mr. King's biography is included above under the section titled "Proposal 1—Election of Directors—Directors Continuing in Office Until the 2013 Annual Meeting."

James H. Welch has served as our Chief Financial Officer since October 1, 2010. From June 2006 until September 2010, Mr. Welch served as Chief Financial Officer and Corporate Secretary for Cerimon Pharmaceuticals, a biopharmaceutical company. Mr. Welch served as Vice President, Chief Financial Officer and Corporate Secretary for Rigel Pharmaceuticals, Inc., a drug development company from October 2000 until May 2006, and as Vice President, Finance and Administration for Rigel Pharmaceuticals, Inc. from May 1999 until October 2000. From June 1998 until May 1999, Mr. Welch served as an independent consultant at various companies. Mr. Welch served as Chief Financial Officer of Biocircuits Corporation, a company focused on developing immunodiagnostic testing systems from February 1997 until June 1998, and from June 1992 until February 1997, he served as Corporate Controller of Biocircuits Corporation. Mr. Welch holds a B.A. in Business Administration from Whitworth College and an M.B.A. from Washington State University.

Pamela P. Palmer, M.D., Ph.D. Dr. Palmer's biography is included above under the section titled "Proposal 1—Election of Directors—Directors Continuing in Office Until the 2013 Annual Meeting."

Lawrence G. Hamel has served as our Chief Development Officer since September 2006. From 1986 until September 2006, Mr. Hamel served as Product Development Manager, Director Project Management, Executive Director Oral Product Development, and Vice President Oral Products Development at ALZA Corporation. From 1977 until 1985, Mr. Hamel held a number of other positions at ALZA Corporation, including Senior Chemist, Research Scientist, and Senior Research Fellow. Mr. Hamel holds a B.S. in Biology from the University of Michigan.

Badri Dasu has served as our Chief Engineering Office since September 2007. From December 2005 until September 2007, Mr. Dasu served as Vice President of Medical Device Engineering at Anesiva, Inc., a biopharmaceutical company. From March 2002 until December 2005, Mr. Dasu served as Vice President for Manufacturing and Device Development at AlgoRx Pharmaceuticals, Inc., an emerging pain management company, which merged with Corgentech Inc., a biotechnology company, in December 2005. From January 2000 until March 2002, Mr. Dasu served as Vice President of Manufacturing and Process Development at PowderJect Pharmaceuticals, a vaccine, drug and diagnostics delivery company that was acquired by Chiron Corporation in 2003 and later acquired by Novartis AG, a global healthcare and pharmaceutical company, in 2006. Previously, Mr. Dasu served in various capacities in process development at Metrika, Inc., a company focused on the manufacture and marketing of disposable diabetes monitoring products that was acquired by Bayer HealthCare, LLC in 2006, and at Cygnus, Inc., a drug delivery and specialty pharmaceuticals company. Mr. Dasu holds a B.E. in Chemical Engineering from the University of Mangalore, India and a M.S. in Chemical Engineering from the University of Tulsa.

Summary Compensation Table

The following table sets forth certain summary information for the year indicated with respect to the compensation earned by our Chief Executive Officer, our Chief Financial Officer and each of our three other most highly compensated executive officers as of December 31, 2011. We refer to these individuals as our “named executive officers” elsewhere in this proxy statement.

2011 and 2010 Summary Compensation Table

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$) ⁽¹⁾	Option Awards (\$) ⁽²⁾	Non-Equity Incentive Plan Compensation (\$) ⁽³⁾	Total (\$)
Richard A. King ⁽⁴⁾ <i>President and Chief Executive Officer</i>	2011	411,600	—	425,927	279,955	100,842	1,218,324
	2010	306,667	94,500	—	925,032	—	1,326,199
James H. Welch ⁽⁵⁾ <i>Chief Financial Officer</i>	2011	290,000	—	—	60,750	67,425	418,175
	2010	72,500	21,750	—	450,426	—	544,676
Pamela P. Palmer, M.D., Ph.D. <i>Chief Medical Officer</i>	2011	385,000	—	233,199	243,000	89,513	950,712
	2010	375,000	—	—	493,876	—	868,876
Lawrence G. Hamel <i>Chief Development Officer</i>	2011	283,000	—	58,302	75,330	70,892	487,524
	2010	275,000	—	—	123,469	—	398,469
Badri Dasu <i>Chief Engineering Officer</i>	2011	270,500	—	51,305	127,575	59,645	509,025
	2010	262,500	—	—	109,912	—	372,412

⁽¹⁾ The dollar amounts in this column represent the aggregate grant date fair value calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, or ASC 718, for all restricted stock unit awards granted during the indicated year. The estimated fair value of restricted stock unit awards is calculated based on the market price of our common stock on the date of grant.

⁽²⁾ The dollar amounts in this column represent the aggregate grant date fair value of all option awards granted during the indicated year. These amounts have been calculated in accordance with ASC 718, using the Black-Scholes option-pricing model and excluding the effect of estimated forfeitures. For a discussion of valuation assumptions, see Note 1 to our financial statements and the discussion under “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Stock-Based Compensation” included in our Annual Report on Form 10-K for the year ended December 31, 2011, as filed with the SEC on March 23, 2012. These amounts do not necessarily correspond to the actual value that may be recognized from the option awards by the named executive officers. The modification of stock option awards originally granted in June 2010, as described under “—Employment Agreements and Arrangements—Employee Benefit and Stock Plans—Option Exercise Price Increase” below, did not result in an increase in the fair value of such stock option awards under ASC 718.

⁽³⁾ The dollar amounts reflect the cash awards made to the named executive officers under the Company’s 2011 Cash Bonus Plan.

⁽⁴⁾ Mr. King has served as our President and Chief Executive Officer since May 1, 2010. Mr. King also served as our principal financial officer from May 1, 2010 until September 30, 2010.

⁽⁵⁾ Mr. Welch has served as our Chief Financial Officer since October 1, 2010.

Employment Agreements and Arrangements

Executive Employment Agreements and Termination Benefits

Offer Letter Agreements

We have entered into offer letter agreements with each of our named executive officers, in connection with each named executive officer's commencement of employment with us. These offer letter agreements provide for the named executive officer's initial base salary, eligibility to participate in our standard benefit plans and in certain cases, the named executive officer's initial stock option grant along with vesting provisions with respect to that initial stock option grant. We amended and restated these offer letter agreements in December 2010 to clarify certain terms for compliance with tax laws, to specify the terms of the option to be granted to Mr. King upon achievement of certain milestones and to provide additional change of control severance benefits to Mr. Welch and Dr. Palmer.

Under Mr. King's, Mr. Welch's and Dr. Palmer's respective offer letter agreements, in the event that Mr. Welch's or Dr. Palmer's employment is terminated by us without cause, or in a manner that constitutes an involuntary termination, or Mr. King's employment is terminated by us without cause or he resigns for good reason, in each case within one year following a change in control, as these terms are defined in the offer letters, each will be entitled to base salary and health benefits continuation for a period of twelve months in the case of Mr. King, and six months in the case of each of Mr. Welch and Dr. Palmer. Mr. King is also entitled to base salary and health benefits continuation for a period of twelve months in connection with a termination by us without cause that is not in connection with a change of control. In order to receive severance benefits, each such executive must sign a waiver and release of claims, and in the case of Mr. King and Dr. Palmer, each such executive must resign from our Board of Directors if so requested by the Board of Directors. Please refer to "—Long-Term Equity Incentive Award Vesting Acceleration" below for descriptions of the current stock option and restricted stock unit, or RSU, vesting acceleration for each of our executive officers.

Mr. King's and Mr. Welch's offer letters also provide for an opportunity to earn a target annual bonus of 35% and 30% of base salary, respectively, and Mr. King was entitled to an additional option grant covering 115,208 shares of our common stock upon achievement of one of the following corporate milestones prior to June 30, 2011: (i) completion by the company of a qualifying partnering transaction, (ii) completion of our IPO, or (iii) completion of a private financing raising at least \$15 million from new investors. Mr. Welch was entitled to an additional option grant covering 25,000 shares if we completed our IPO or a private financing raising at least \$15 million from new investors prior to June 30, 2011. In December 2010, our Board of Directors approved a bonus payment of \$94,500 to Mr. King in connection with his annual target bonus pursuant to his employment agreement. In March 2011, our Board of Directors approved a bonus payment of \$21,750 to Mr. Welch in connection with his annual target bonus pursuant to his employment agreement. In March 2011, our Board of Directors also granted Messrs. King and Welch options to purchase 115,208 and 25,000 shares of our common stock in connection with the completion of our IPO pursuant to each of their employment agreements.

Each of our executive officers are employed "at-will," and each such executive officer's employment may be terminated at any time by us or the named executive officer.

Cash Bonus Plan

We maintain an annual cash bonus plan to reward executive officers and other employees for attaining our corporate performance objectives, as well as to reward them for their individual contributions to the achievement of those objectives. Target bonus levels under the annual cash bonus plan are assigned based on various categories of employees. The actual bonus awarded in any year, if any, may be more or less than the target, depending primarily on the achievement of our corporate objectives, and an individual employee's achievement of his or her objectives. Whether or not a bonus is paid for any year is within the discretion of our Compensation Committee, and our Compensation Committee has the discretion to award bonuses even if the applicable performance criteria set forth under the annual cash bonus plan have not been met or to award a bonus based on other criteria.

Target bonuses for our named executive officers under the 2011 Cash Bonus Plan (the “Bonus Plan”), ranged from 30% to 35% of such executive’s 2011 base salary based on market data established for each executive position. The amount of cash bonus, if any, for each named executive officer was based on both the named executive officer achieving his or her individual performance goals and on our attainment of the 2011 corporate objectives approved by our Board of Directors. Our 2011 corporate objectives were primarily related to product development, clinical trial milestones and financial objectives. The target bonuses for our named executive officers for 2011 were as follows:

<u>Named Executive Officer</u>	<u>Target Bonus (as a percentage of FY 2011 Base Salary)</u>
Richard A. King	35%
James H. Welch	30%
Pamela P. Palmer, M.D., Ph.D.	30%
Lawrence G. Hamel	30%
Badri Dasu	30%

Mr. King’s cash bonus under the Bonus Plan was based 25% on the achievement of his individual performance goals, as determined by our Board of Directors, and 75% on the achievement of the 2011 corporate objectives. The cash bonus for all other named executive officers was based 40% on the achievement of his or her individual performance goals, as determined by our Board of Directors, and 60% on the achievement of the 2011 corporate objectives. The named executive officers’ actual bonuses could have exceeded 100% of target in the event performance exceeded the predetermined goals.

In February 2012, the Compensation Committee determined, and the Board of Directors confirmed, that the Company had achieved a 62.5% attainment level of the 2011 corporate objectives. At that same time, the Board of Directors also confirmed the attainment levels of each executive’s individual performance goals for 2011. Pursuant to our Cash Bonus Plan, the Board of Directors awarded cash bonuses to our executives based on the confirmed attainment level of the 2011 corporate objectives and the confirmed attainment level of their respective individual performance goals for 2011. All bonus amounts were paid on February 15, 2012.

The table below sets forth the target and actual non-equity incentive plan awards for our named executive officers for fiscal 2011 performance:

<u>Name</u>	<u>Target Award</u>	<u>Actual Award</u>
Richard A. King	\$ 144,060	\$ 100,842
James H. Welch	\$ 87,000	\$ 67,425
Pamela P. Palmer, M.D., Ph.D.	\$ 115,500	\$ 89,513
Lawrence G. Hamel	\$ 84,900	\$ 70,892
Badri Dasu	\$ 81,150	\$ 59,645

Long-Term Equity Incentive Award Vesting Acceleration

Each of our executive officers are entitled to full “double-trigger” stock option and RSU vesting acceleration benefits (for all currently outstanding stock options and RSUs and any stock options and RSUs that may be granted in the future) in the event their service with us is terminated by us without cause or, in the case of acceleration of stock options only for Messrs. Welch, Hamel and Dasu and Dr. Palmer, in a manner that constitutes an involuntary termination, or, in the case of acceleration of RSUs only for Messrs. Welch, Hamel and Dasu and Dr. Palmer and for acceleration of stock options and RSUs for Mr. King, such executive resigns for good reason, in each case within 18 months following a change in control, subject to signing an effective release of claims, and in the case of acceleration of stock options for Mr. King and Dr. Palmer, resignation from our Board of Directors if so requested by the Board of Directors.

Employee Benefit and Stock Plans

2006 Stock Plan

Our Board of Directors adopted, and our stockholders approved, the 2006 Stock Plan, or 2006 Plan, in August 2006. The 2006 Plan was subsequently amended by our Board of Directors and approved by our stockholders in each of February 2008 and November 2009. The 2006 Plan provides for the grant of incentive stock options, nonstatutory stock options and rights to acquire restricted stock. Effective upon the execution and delivery of the underwriting agreement for our IPO, no additional stock options or other stock awards may be granted under the 2006 Plan. All outstanding stock options and other stock awards previously granted under the 2006 Plan remain subject to the terms of the 2006 Plan.

Administration. Our Board of Directors administers our 2006 Plan. Our Board of Directors, referred to as the plan administrator, has the authority to interpret the 2006 Plan, as well as to determine the terms of a stock award or amend the terms of a stock award. No amendment to the 2006 Plan or any award agreement thereunder may adversely affect the rights under any outstanding stock award unless the holder consents to that amendment. However, the plan administrator may unilaterally amend the 2006 Plan or the terms of an outstanding award agreement to conform the 2006 Plan or such stock award to any law, regulation or rule applicable to the 2006 Plan, including, but not limited to, Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), or Section 409A, as the plan administrator deems necessary or advisable.

Stock option provisions generally. In general, the exercise price of a stock option could not be less than 100% of the fair market value of our common stock on the date of grant. However, an incentive stock option granted to a person who on the date of grant owned more than 10% of the combined voting power of all classes of our stock or any of our affiliates' stock must have had an exercise price that is at least 110% of the fair market value on the date of grant.

Generally, an optionee may not transfer his or her stock option other than by will or by the laws of descent and distribution. Shares subject to options under the 2006 Plan generally vest and become exercisable in periodic installments. With the exception of stock options issued to an officer, a director or a consultant, shares subject to stock options under the 2006 Plan must vest and become exercisable at a rate not less than 20% per year over a period of five years from the date of grant of the option, subject to the optionee's continued service.

The aggregate fair market value, determined at the time of grant, of shares of our common stock with respect to which incentive stock options are exercisable for the first time by an optionee during any calendar year under all of our stock plans may not exceed \$100,000. Options or portions thereof that exceed such limit will be treated as nonstatutory stock options.

The plan administrator determined the term of stock options granted under the 2006 Plan, up to a maximum of 10 years, provided that incentive stock options granted to persons who own more than 10% of the combined voting power of all classes of our stock or any of our affiliates' stock may not have a term of more than five years. Unless the terms of an optionee's stock option agreement provided otherwise, if an optionee's service relationship with us, or any of our affiliates, ceases for any reason other than disability, death or cause, the optionee generally may exercise the vested portion of any stock options for a period of three months following the cessation of service. If an optionee's service relationship with us, or any of our affiliates, ceases due to disability or death, or an optionee dies within three months following cessation of service, the optionee or a beneficiary may generally exercise any vested options for a period of 12 months. The option term may be further extended in the event that exercise of the stock option following termination of the optionee's service is prohibited by applicable securities laws. In no event may an option be exercised beyond the expiration of its term. In the event of a termination for cause, options generally terminate immediately upon the termination of the optionee's service. Unless otherwise defined in an optionee's award agreement or in a written employment agreement or contract of service between an optionee and us, cause refers to an optionee's termination due to (1) the optionee's theft, dishonesty, willful misconduct, breach of fiduciary duty for personal profit, or falsification of any of our documents or records; (2) the optionee's material failure to abide by a code of conduct

or other policies of ours (including, without limitation, policies relating to confidentiality and reasonable workplace conduct); (3) the optionee's unauthorized use, misappropriation, destruction or diversion of any tangible or intangible asset or corporate opportunity of ours (including, without limitation, the optionee's improper use or disclosure of our confidential or proprietary information); (4) any intentional act by the optionee which has a material detrimental effect on our reputation or business; (5) the optionee's repeated failure or inability to perform any reasonable assigned duties after written notice from us of, and a reasonable opportunity to cure, such failure or inability; (6) any material breach by the optionee of any employment or service agreement between the optionee and us, which breach is not cured pursuant to the terms of such agreement; or (7) the optionee's conviction (including any plea of guilty or nolo contendere) of any criminal act involving fraud, dishonesty, misappropriation or moral turpitude, or which impairs the optionee's ability to perform his or her duties with us.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the plan administrator and may include (a) cash, check or cash equivalent, (b) the tender to us, or attestation to the ownership, of shares of our common stock previously owned by the optionee, (c) a broker-assisted cashless exercise, (d) other legal consideration approved by the plan administrator or (e) any combination of the foregoing.

Changes to capital structure. In the event that there is a specified type of change in our capital structure, such as a stock split or recapitalization, appropriate adjustments will be made to the number of shares and price per share of all outstanding options and stock awards under the 2006 Plan.

Change in control. In the event of certain change in control transactions involving us, such as our liquidation or dissolution or an event that results in a material change in the ownership of our company, the plan administrator has the discretion to take any of the following actions with respect to stock awards under the 2006 Plan:

- accelerate the vesting of a stock award;
- arrange for the assumption, continuation or substitution of a stock award by the surviving or acquiring entity or its parent company; or
- cancel or arrange for the cancellation of the stock award in exchange for a payment in (1) cash, (2) stock, or (3) other property, and in any such case in an amount equal to the fair market value of the consideration to be paid per share of stock in the change of control over the exercise price per share.

Stock awards that are neither assumed or continued by the surviving or acquiring entity or its parent company nor exercised as of the effective time of the change in control will terminate and cease to be outstanding as of the effective time of the change in control.

Option Exercise Price Increase

In December 2010, our Board of Directors, out of an abundance of caution, allowed eligible optionees, including our named executive officers, to increase the exercise price of stock options granted to them on June 15, 2010 in light of the potential risk of adverse tax consequences under Section 409A. Under Section 409A, stock options with an exercise price that is less than the fair market value of the stock on the date of grant may be deemed deferred compensation subject to adverse taxation under Section 409A. When setting the exercise price for the June 15, 2010 stock option grants, our Board of Directors determined the fair market value of our common stock to be \$1.20 per share, which valuation was subsequently revisited for financial reporting purposes when our Board of Directors began to analyze the prospects of an IPO as described in more detail under "Item 7. Management's Discussion and Analysis of our Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Stock-Based Compensation" of our Annual Report on Form 10-K for the year ended December 31, 2011, as filed with the SEC on March 23, 2012. As such, our Board of Directors subsequently determined a fair value of our common stock for financial reporting purposes to be \$2.56 per share.

We believe that our Board of Directors' determination of the fair market value of our common stock on June 15, 2010 in reliance upon all material facts available to our Board of Directors on that date, was reasonable. However, given the potential adverse tax consequences to the optionees if the Internal Revenue Service determines that our original determination was grossly unreasonable, our Board decided, out of an abundance of caution, to make the offer to amend. All of our eligible named executive officers accepted the offer, and their eligible options were amended on December 27, 2010.

2011 Equity Incentive Plan

Our Board of Directors adopted, and our stockholders approved, the 2011 Equity Incentive Plan, or 2011 Incentive Plan, in January 2011 as a successor to the 2006 Plan. The 2011 Incentive Plan became effective immediately upon the execution and delivery of the underwriting agreement for our IPO and, on that date, the 51,693 shares that were available for future grant under the 2006 Plan as of such date became available for future grant under the 2011 Incentive Plan, and no additional shares remain available for grant under the 2006 Plan. The 2011 Incentive Plan will terminate on January 4, 2021, unless sooner terminated by our Board of Directors. Our Board of Directors may amend or suspend the 2011 Incentive Plan at any time, although no such action may impair the rights under any then-outstanding award without the holder's consent.

Stock awards. The 2011 Incentive Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards, and other forms of equity compensation, or collectively, stock awards, all of which may be granted to employees, including officers, and to non-employee directors and consultants. Additionally, the 2011 Incentive Plan provides for the grant of performance cash awards. Incentive stock options may be granted only to employees. All other awards may be granted to employees, including officers, and to non-employee directors and consultants.

Share reserve. The initial aggregate number of shares of our common stock that may be issued pursuant to stock awards under the 2011 Incentive Plan was 1,875,000 shares, which number was the sum of (i) 51,693 shares remaining available for future grant under the 2006 Plan at the time of the execution and delivery of the underwriting agreement for our IPO, and (ii) an additional 1,823,307 new shares. The number of shares of our common stock reserved for issuance under the 2011 Incentive Plan will automatically increase on January 1st each year, starting on January 1, 2012 and continuing through January 1, 2020, by 4% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year, or such lesser number of shares of common stock as determined by our Board of Directors. Accordingly, effective January 1, 2012, the share reserve of the 2011 Incentive Plan increased by 782,711 shares of our common stock. The maximum number of shares that may be issued pursuant to the exercise of incentive stock options under the 2011 Incentive Plan is 10,000,000 shares.

No person may be granted stock awards covering more than 1,000,000 shares of our common stock under our 2011 Incentive Plan during any calendar year pursuant to stock options, stock appreciation rights and other stock awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the fair market value on the date the stock award is granted. Additionally, no person may be granted in a calendar year a performance stock award covering more than 750,000 shares or a performance cash award having a maximum value in excess of \$1,000,000. Such limitations are designed to help assure that any deductions to which we would otherwise be entitled with respect to such awards will not be subject to the \$1,000,000 limitation on the income tax deductibility of compensation paid to any covered executive officer imposed by Section 162(m) of the Code.

If a stock award granted under the 2011 Incentive Plan expires or otherwise terminates without being exercised in full, or is settled in cash, the expiration, termination or settlement shall not reduce (or otherwise offset) the number of shares of common stock that may be available for issuance under the 2011 Incentive Plan. In addition, the following types of shares under the 2011 Incentive Plan may become available for the grant of new stock

awards under the 2011 Incentive Plan: (1) shares that are forfeited to or repurchased by us prior to becoming fully vested; (2) shares withheld to satisfy income or employment withholding taxes; or (3) shares used to pay the exercise price of an option. Shares issued under the 2011 Incentive Plan may be previously unissued shares or reacquired shares bought by us on the open market.

Administration. Our Board of Directors, or a duly authorized committee thereof, has the authority to administer the 2011 Incentive Plan. Our Board of Directors has delegated its authority to administer the 2011 Incentive Plan to our Compensation Committee under the terms of the Compensation Committee's charter. Our Board of Directors may also delegate to one or more of our officers the authority to (1) designate employees (other than other officers) to be recipients of stock options or stock appreciation rights, and (2) determine the number of shares of common stock to be subject to such stock awards, provided that our Board of Directors must specify the total number of shares of common stock that may be subject to stock awards granted by such officer and that such officer may not grant a stock award to himself or herself. Subject to the terms of the 2011 Incentive Plan, our Board of Directors or the authorized committee or officer, referred to as the plan administrator, determines recipients, dates of grant, the numbers and types of stock awards to be granted and the terms and conditions of the stock awards, including the period of their exercisability and vesting schedule applicable to a stock award. Subject to the limitations set forth below, the plan administrator will also determine the exercise price, strike price or purchase price of awards granted and the types of consideration to be paid for the award.

The plan administrator has the authority to reduce the exercise price (or strike price) of any outstanding option or stock appreciation right, cancel and re-grant any outstanding option or stock appreciation right or take any other action that is treated as a repricing under U.S. generally accepted accounting principles, with the consent of any adversely affected participant.

Stock options. Incentive and nonstatutory stock options are granted pursuant to stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for a stock option, within the terms and conditions of the 2011 Incentive Plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2011 Incentive Plan vest at the rate specified by the plan administrator.

The plan administrator determines the term of stock options granted under the 2011 Incentive Plan, up to a maximum of 10 years. Unless the terms of an optionee's stock option agreement provides otherwise, if an optionee's service relationship with us, or any of our affiliates, ceases for any reason other than disability, death or cause, the optionee may generally exercise any vested options for a period of three months following the cessation of service. The option term may be extended in the event that exercise of the option or sale of shares received upon exercise of the option following such a termination of service is prohibited by applicable securities laws or our insider trading policy. If an optionee's service relationship with us, or any of our affiliates, ceases due to disability or death, or an optionee dies within a certain period following cessation of service, the optionee or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, options generally terminate immediately upon the occurrence of the event giving rise to the right to terminate the individual for cause. In no event may an option be exercised beyond the expiration of its term.

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

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

Tax limitations on incentive stock options. The aggregate fair market value, determined at the time of grant, of our common stock with respect to incentive stock options that are exercisable for the first time by an optionee during any calendar year under all of our stock plans may not exceed \$100,000. Options or portions thereof that exceed such limit will generally be treated as nonstatutory stock options. No incentive stock option may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the term of the incentive stock option does not exceed five years from the date of grant.

Restricted stock awards. Restricted stock awards are granted pursuant to restricted stock award agreements adopted by the plan administrator. Restricted stock awards may be granted in consideration for (1) cash, check, bank draft or money order, (2) past services rendered to us or our affiliates, or (3) any other form of legal consideration. Common stock acquired under a restricted stock award may, but need not, be subject to a share repurchase option in our favor in accordance with a vesting schedule to be determined by the plan administrator. Rights to acquire shares under a restricted stock award may be transferred only upon such terms and conditions as set by the plan administrator.

Restricted stock unit awards. Restricted stock unit awards are granted pursuant to restricted stock unit award agreements adopted by the plan administrator. The plan administrator will determine the vesting terms of restricted stock unit awards. The plan administrator will determine the consideration to be paid, if any, by the participant upon delivery for each share subject to a restricted stock unit award, which may be paid in any form of legal consideration acceptable to the plan administrator. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, restricted stock units that have not vested will be forfeited upon the participant's cessation of continuous service for any reason.

Other stock awards. The plan administrator may grant other awards based in whole or in part by reference to our common stock. The plan administrator will set the number of shares under the stock award and all other terms and conditions of such awards.

Changes to capital structure. In the event that there is a specified type of change in our capital structure, such as a stock split or recapitalization, the plan administrator shall appropriately and proportionately adjust: (a) the class(es) and maximum number of shares reserved for issuance under the 2011 Incentive Plan and the class(es) and maximum number of shares by which the share reserve may increase automatically each year, (b) the class(es) and maximum number of shares that may be issued upon the exercise of incentive stock options, (c) the class(es) and maximum number of shares subject to stock awards that can be granted in a calendar year (as established under the 2011 Incentive Plan pursuant to Section 162(m) of the Code) and (d) the class(es) and number of shares and price per share of stock subject to outstanding stock awards.

Corporate transactions. In the event of certain specified significant corporate transactions, unless otherwise provided in the instrument evidencing the stock award or any other written agreement between us or any affiliate and the holder of the stock award, the plan administrator has the discretion to take any of the following actions with respect to stock awards:

- arrange for the assumption, continuation or substitution of a stock award by a surviving or acquiring entity or parent company;
- arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or acquiring entity or parent company;
- accelerate the vesting of the stock award and provide for its termination prior to the effective time of the corporate transaction;

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- arrange for the lapse of any reacquisition or repurchase right held by us;
 - cancel or arrange for the cancellation of the stock award in exchange for such cash consideration, if any, as our Board of Directors may deem appropriate; or
 - make a payment equal to the excess of (a) the value of the property the participant would have received upon exercise of the stock award over (b) the exercise price otherwise payable in connection with the stock award.

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

Change in control. The plan administrator may provide, in an individual award agreement or in any other written agreement between a participant and us, that the stock award will be subject to additional acceleration of vesting and exercisability in the event of a certain specified change in control. However, in the absence of such a provision, no such acceleration of the stock award will occur.

2011 Employee Stock Purchase Plan

Our Board of Directors adopted, and our stockholders approved, the 2011 Employee Stock Purchase Plan, or ESPP, in January 2011. The ESPP became effective immediately upon the execution and delivery of the underwriting agreement for our IPO.

Share reserve. Initially, 250,000 shares of our common stock were authorized to be issued under the ESPP pursuant to purchase rights granted to our employees or to employees of any of our designated affiliates. The number of shares of our common stock reserved for issuance will automatically increase on January 1st each year, starting January 1, 2012 and continuing through January 1, 2020, in an amount equal to the lower of (1) 2% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year, or (2) a number of shares of common stock as determined by our Board of Directors. Accordingly, effective January 1, 2012, the share reserve of the ESPP increased by 391,355 shares of our common stock. If a purchase right granted under the ESPP terminates without having been exercised, the shares of our common stock not purchased under such purchase right will be available for issuance under the ESPP.

Administration. Our Board of Directors, or a duly authorized committee thereof, has the authority to administer the ESPP. Our Board of Directors has delegated its authority to administer the ESPP to our Compensation Committee. Our Board of Directors or the authorized committee is referred to as the plan administrator.

Purchase rights. The ESPP is implemented through a series of offerings of purchase rights to eligible employees. Purchase rights are generally not transferable. Under the ESPP, we may specify offerings with a duration of not more than 27 months, and may specify one or more shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for the employees who are participating in the offering. An offering may be terminated early under certain circumstances such as a material change in control of our company. The plan administrator has the discretion to structure an offering so that if the fair market value of the shares of our common stock on the first day of a new purchase period within such offering is less than or equal to the fair market value of the shares of our common stock on the first day of the offering, then (a) that offering shall terminate immediately, and (b) the participants in such terminated offering shall be automatically enrolled in a new offering beginning on the first day of such new purchase period.

Payroll deductions. Generally, all regular employees, including executive officers, employed by us or by any of our designated affiliates, may participate in the ESPP and may contribute, normally through payroll deductions, up to 15% of their earnings toward the purchase of our common stock under the ESPP. Unless otherwise determined by the plan administrator, common stock will be purchased for participating employees at a

price per share equal to the lower of (a) 85% of the fair market value of a share of our common stock on the first date of an offering, or (b) 85% of the fair market value of a share of our common stock on the date of purchase.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in the ESPP, as determined by the plan administrator: (a) customary employment with us or one of our affiliates for more than 20 hours per week and more than five months per calendar year or (b) continuous employment with us or one of our affiliates for a minimum period of time prior to the first date of an offering, provided that such minimum period may not exceed two years. No employee may purchase shares under the ESPP at a rate in excess of \$25,000 worth of our common stock, based on the fair market value per share of our common stock at the beginning of an offering, for each calendar year in which such purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under the ESPP if, immediately after such rights are granted, such employee owns our stock possessing five percent or more of the total combined voting power or value of all classes of our outstanding capital stock.

Changes to capital structure. In the event that there is a specified type of change in our capital structure such as a stock split or recapitalization, appropriate adjustments will be made to (a) the class(es) and maximum number of shares reserved under the ESPP, (b) the class(es) and maximum number of shares by which the share reserve may increase automatically each year, (c) the class(es) and number of shares subject to, and purchase price applicable to, all outstanding purchase rights, and (d) any limits on the class(es) and number of shares that may be purchased in an ongoing offering.

Corporate transactions. In the event of certain significant corporate transactions, such as an acquisition of our company that results in a material change in the ownership of our company, any then-outstanding purchase rights under the ESPP may be assumed, continued or substituted for by any surviving or acquiring entity or its parent company, provided that the rights of any participant under any such assumption, continuation or substitution will not be impaired. If the surviving or acquiring entity or its parent company elects not to assume, continue or substitute for such purchase rights, then the participants' accumulated contributions will be used to purchase shares of our common stock within 10 business days prior to such corporate transaction, and such purchase rights will terminate immediately thereafter.

Plan amendments. The plan administrator has the authority to amend, suspend or terminate the ESPP, provided any such action will not be taken without the consent of an adversely affected participant except as necessary to comply with any laws, listing requirements or governmental regulations or to maintain favorable tax, listing or regulatory treatment. We will obtain stockholder approval of any amendment to our ESPP as required by applicable law.

401(k) Plan

We maintain a tax-qualified 401(k) retirement plan for all employees who satisfy certain eligibility requirements, including requirements relating to age and length of service. Under our 401(k) plan, employees may elect to defer a portion of their eligible compensation subject to applicable annual Code limits. We provide a discretionary safe harbor profit sharing contribution equal to 3% of a participant's compensation to our eligible participants, which is 100% vested when made. We intend for the 401(k) plan to qualify under Section 401(a) and 501(a) of the Code so that contributions by employees to the 401(k) plan, and income earned on those contributions, are not taxable to employees until withdrawn from the 401(k) plan.

Pension Benefits

We do not maintain any pension or retirement plans.

Nonqualified Deferred Compensation

We do not maintain any nonqualified deferred compensation plans.

Outstanding Equity Awards at December 31, 2011

The following table presents information regarding outstanding equity awards held by our named executive officers as of December 31, 2011.

Outstanding Equity Awards at December 31, 2011

Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)(1)	Market Value of Shares or Units of Stock That Have Not Vested (\$)(2)
Richard A. King	—	115,208 ⁽³⁾	3.45	03/02/2021	92,593	177,779
	28,538 ⁽⁴⁾	—	2.56 ⁽⁵⁾	06/15/2020		
	178,363	249,708 ⁽⁶⁾	2.56 ⁽⁵⁾	06/15/2020		
James H. Welch	—	25,000 ⁽³⁾	3.45	03/02/2021	—	—
	39,062	85,938 ⁽⁷⁾	5.32	11/04/2020		
Pamela P. Palmer, M.D., Ph.D.	—	100,000 ⁽³⁾	3.45	03/02/2021	50,696	97,336
	187,500	62,500 ⁽⁸⁾	2.56 ⁽⁵⁾	06/15/2020		
	28,125	9,375 ⁽⁸⁾	5.52	03/25/2019		
	37,500	— ⁽⁹⁾	4.00	08/14/2018		
	25,000	— ⁽¹⁰⁾	1.32	04/03/2017		
Lawrence G. Hamel	—	31,000 ⁽³⁾	3.45	03/02/2021	12,675	24,336
	46,875	15,625 ⁽⁸⁾	2.56 ⁽⁵⁾	06/15/2020		
	9,375	3,125 ⁽⁸⁾	5.52	03/25/2019		
	18,750	— ⁽¹¹⁾	1.20	12/05/2017		
	25,000	— ⁽¹²⁾	1.20	04/03/2017		
	12,500	— ⁽¹⁰⁾	1.20	04/03/2017		
Badri Dasu	—	52,500 ⁽³⁾	3.45	03/02/2021	11,154	21,416
	22,500	7,500 ⁽⁸⁾	2.56 ⁽⁵⁾	06/15/2020		
	12,500	12,500 ⁽¹³⁾	2.56 ⁽⁵⁾	06/15/2020		
	4,687	1,563 ⁽⁸⁾	5.52	03/25/2019		
	37,500	— ⁽¹⁴⁾	1.20	10/25/2017		

⁽¹⁾ The shares subject to these restricted stock units vested as to 1/4 of the shares on September 2, 2011, with the remaining shares vesting as to 1/4 of the shares subject to the award on each of the 1-, 2-, and 3-year anniversary of the March 2, 2011 stock award grant date.

⁽²⁾ The dollar amounts in this column represent the aggregate grant date fair value of all restricted stock unit awards granted that have not vested. The estimated fair value of restricted stock unit awards is calculated based on the market price of our common stock as of December 31, 2011, which is \$1.92.

⁽³⁾ The shares subject to this stock option vested as to 1/4 of the shares on March 2, 2012, with the remaining shares vesting on an equal monthly basis over the following 36 months.

⁽⁴⁾ The shares subject to this stock option were fully vested as of the June 15, 2010 grant date.

-
- (5) The dollar amounts reflect the increase in the exercise price of the options we granted to our named executive officers on June 15, 2010 as described under “—Employment Agreements and Arrangements—Employee Benefit and Stock Plans—Option Exercise Price Increase.”
- (6) The shares subject to this stock option vested as to 28,538 shares on June 15, 2010, and another 85,614 shares vested on March 3, 2011, with the remaining shares vesting on an equal monthly basis over the following 36 months.
- (7) The shares subject to this stock option vested as to 1/4 of the shares on September 30, 2011, with the remaining shares vesting on an equal monthly basis over the following 36 months.
- (8) The shares subject to this stock option vested as to 1/2 of the shares on December 31, 2010, with the remaining shares vesting on an equal monthly basis over the following 24 months.
- (9) The shares subject to this stock option vested as to 1/4 of the shares on December 31, 2008, with the remaining shares vesting on an equal monthly basis over the following 36 months.
- (10) The shares subject to this stock option vested as to 1/4 of the shares on December 31, 2007, with the remaining shares vesting on an equal monthly basis over the following 36 months.
- (11) The shares subject to this stock option vested as to 1/4 of the shares on December 4, 2008, with the remaining shares vesting on an equal monthly basis over the following 36 months.
- (12) The shares subject to this stock option vested as to 1/4 of the shares on September 20, 2007, with the remaining shares vesting on an equal monthly basis over the following 36 months.
- (13) The shares subject to this stock option vested as to 1/4 of the shares on December 31, 2010, with the remaining shares vesting on an equal monthly basis over the following 36 months.
- (14) The shares subject to this stock option vested as to 1/4 of the shares on September 25, 2008, with the remaining shares vesting on an equal monthly basis over the following 36 months.

Director Compensation

Non-Employee Director Compensation

Cash Compensation Arrangements

In January 2011, our Board of Directors adopted a non-employee director compensation policy, which became effective for all of our non-employee directors upon the execution and delivery of the underwriting agreement for our IPO. Pursuant to the non-employee director compensation policy, each member of our Board of Directors who is not our employee receives an annual retainer of \$30,000 plus \$2,000 as a meeting fee for each board meeting attended by the non-employee director in person. In addition, our non-employee directors receive the following cash compensation for board services, as applicable:

- the Board chair receives an additional annual retainer of \$25,000;
- the Audit Committee chair receives an additional annual retainer of \$10,000;
- the Compensation Committee chair receives an additional annual retainer of \$5,000;
- the Nominating and Corporate Governance Committee chair receives an additional annual retainer of \$5,000; and
- each committee member receives \$1,000 as a meeting fee for each committee meeting attended by the non-employee director in person.

All Board and committee retainers accrue and are payable on a quarterly basis at the end of each calendar quarter of service. We continue to reimburse our non-employee directors for travel, lodging and other reasonable expenses incurred in connection with their attendance at board of director or committee meetings.

Equity Compensation Arrangements

Our non-employee director compensation policy provides for automatic grants of stock options to our non-employee directors under our 2011 Incentive Plan. Upon election or appointment to our Board, each non-employee director will receive an initial grant of a stock option to purchase 15,000 shares of our common stock, which will vest as to $\frac{1}{36}$ th of the shares subject to the option on an equal monthly basis over a three-year period. Additionally, on the date of each annual meeting of stockholders, each non-employee director who is then serving as a director or who is elected to our Board of Directors on the date of such annual meeting will receive a grant of a stock option to purchase 12,500 shares of our common stock, which will vest as to $\frac{1}{24}$ th of the shares subject to the option on an equal monthly basis over a two-year period. All these options will be granted with an exercise price equal to the fair market value of our common stock on the date of the grant, and shall be entitled to full vesting acceleration as of immediately prior to the effective date of certain change in control transactions involving us, such as our liquidation or a dissolution of or an event that results in a material change in the ownership of our company. For a description of the terms of the 2011 Incentive Plan, see “—Employment Agreements and Arrangements—Employee Benefit and Stock Plans—2011 Equity Incentive Plan.”

Director Compensation Table

The following table sets forth certain summary information for the year ended December 31, 2011 with respect to the compensation of our non-employee directors. Neither Mr. King nor Dr. Palmer, each of whom are executive officers, received or receives any additional compensation for serving on our board of directors or its committees.

2011 Director Compensation Table

<u>Name</u>	<u>Fees Earned or Paid in Cash (S)</u>	<u>Option Awards (S)(1)(2)</u>	<u>Stock Awards (S)(3)(4)</u>	<u>Total (S)</u>
Thomas A. Schreck	55,972	—	204,050	260,022
Howard B. Rosen	46,086	—	15,159	61,245
Stephen J. Hoffman Ph.D., M.D.	31,167	—	—	31,167
Guy P. Nohra	39,528	—	—	39,528
Mark A. Wan	36,528	—	—	36,528
Mark G. Edwards	13,543	32,514	—	46,057

(1) The dollar amount in this column represents the grant date fair value of the stock option award granted to Mr. Edwards on September 26, 2011. This amount has been calculated in accordance with ASC 718 using the Black-Scholes option-pricing model and excluding the effect of estimated forfeitures. For a discussion of valuation assumptions, see Note 1 to our financial statements and the discussion under “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Stock-Based Compensation” included in our Annual Report on Form 10-K for the year ended December 31, 2011, as filed with the SEC on March 23, 2012. These amounts do not necessarily correspond to the actual value that may be recognized from the option award.

(2) As of December 31, 2011, the following directors held options to purchase the following number of shares of the Company’s common stock: Mr. Schreck, 325,000; Mr. Rosen, 38,750; Mr. Edwards, 15,000.

(3) The dollar amounts in this column represent the aggregate grant date fair value of all restricted stock unit awards granted during the indicated year. The estimated fair value of restricted stock unit awards is calculated based on the market price of our common stock on the date of grant.

(4) As of December 31, 2011, the following directors held restricted stock units to purchase the following number of shares of the Company’s common stock: Mr. Schreck, 44,359; Mr. Rosen, 3,296.

TRANSACTIONS WITH RELATED PERSONS

Policy and Procedures for Review of Related Party Transactions

In January 2011, our Board of Directors adopted an Audit Committee charter, which charter became effective in connection with our IPO. The Audit Committee charter provides that the Audit Committee will review and approve all related party transactions. This review will cover any material transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, and a related party had or will have a direct or indirect material interest, including, purchases of goods or services by or from the related party or entities in which the related party has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related party. None of the transactions below were required to be approved under the terms of the Audit Committee charter, because the audit committee charter was not effective until our IPO.

Certain Transactions With or Involving Related Persons

The following is a summary of transactions since January 1, 2011 to which we have been a party in which the amount involved exceeded the lesser of \$120,000 or one percent of the average of our total assets at fiscal years ended 2010 and 2011 and in which any of our executive officers, directors or holders of more than 5% of our capital stock, or any member of the immediate family of any of the foregoing persons, had or will have a direct or indirect material interest, other than compensation arrangements which are described under "Item 11. Executive Compensation" appearing in our Annual Report on Form 10-K for the year ended December 31, 2011, as filed with the SEC on March 23, 2012.

Bridge Note and Warrant Transfer

In February 2011, ACP IV, L.P., a participant in our 2010 bridge loan and warrant financing, agreed to transfer a 37% interest in its note and the associated portion of its warrant for nominal consideration to funds affiliated with Three Arch Partners, Skyline Venture Partners and Kaiser Foundation Hospitals pro rata among them based on each entity's affiliated funds' then-current beneficial ownership of our outstanding capital stock, with such transfer effective immediately prior to the closing of our IPO. As a result of the foregoing transfer, effective immediately prior to the closing of our IPO:

- funds affiliated with Three Arch Partners acquired warrants which were subsequently exercised, on a net issuance basis, for an aggregate of 5,236 shares of Series C preferred stock (which shares were converted into the same number of shares of common stock in connection with our IPO) and notes in an aggregate principal amount of \$390,704;
- funds affiliated with Skyline Venture Partners acquired a warrant which was subsequently exercised, on a net issuance basis, for 2,730 shares of Series C preferred stock (which shares were converted into the same number of shares of common stock in connection with our IPO) and a note in a principal amount of \$203,676;
- funds affiliated with Kaiser Foundation Hospitals acquired warrants which were subsequently exercised, on a net issuance basis, for an aggregate of 672 shares of Series C preferred stock (which shares were converted into the same number of shares of common stock in connection with our IPO) and notes in an aggregate principal amount of \$50,176; and
- funds affiliated with ACP IV, L.P. continued to hold a warrant which was subsequently exercised, on a net issuance basis, for 14,713 shares of Series C preferred stock (which shares were converted into the same number of shares of common stock in connection with our IPO) and a note in a principal amount of \$1,097,487.

Participation in Our Initial Public Offering

Entities affiliated with Three Arch Partners, Skyline Venture Partners, Alta Partners and Kaiser Foundation Hospitals, each of which was a holder of more than 5% of our capital stock, purchased an aggregate of 4,800,000 shares of our common stock in our IPO, as follows:

<u>Name</u>	<u>Common Stock Purchased in Initial Public Offering</u>	<u>Aggregate Purchase Price</u>
Funds affiliated with Three Arch Partners ⁽¹⁾	2,579,579	\$ 12,897,895
Funds affiliated with Skyline Venture Partners ⁽²⁾	1,235,943	6,179,715
Funds affiliated with Alta Partners ⁽³⁾	680,000	3,400,000
Funds affiliated with Kaiser Foundation Hospitals ⁽⁴⁾	304,478	1,522,390
Price per share	\$ 5.00	
Date of purchase	2/11/11	

- ⁽¹⁾ Includes 65,806 shares of common stock purchased by Three Arch Associates III, L.P., 27,863 shares of common stock purchased by Three Arch Associates IV, L.P., 1,223,983 shares of common stock purchased by Three Arch Partners III, L.P. and 1,261,927 shares of common stock purchased by Three Arch Partners IV, L.P. Mark Wan, one of our directors, is managing partner of Three Arch Management III, L.L.C. and Three Arch Management IV, L.L.C., and in such capacities he may be deemed to beneficially own the shares owned by the funds affiliated with Three Arch Partners. Mr. Wan disclaims beneficial ownership of these shares.
- ⁽²⁾ These shares were purchased by Skyline Venture Partners Qualified Purchaser Fund IV, L.P. Stephen Hoffman, one of our directors, is a Managing Director of Skyline Ventures and as such may be deemed to share voting and dispositive power with respect to all shares of stock purchased by Skyline Venture Partners Qualified Purchasers Fund IV, L.P. Dr. Hoffman disclaims beneficial ownership of these shares.
- ⁽³⁾ These shares were purchased by ACP IV, L.P. Guy Nohra is one of our directors and is a director of ACP IV, LLC, the general partner of ACP IV, L.P., and shares voting and investment power with respect to such shares. Mr. Nohra disclaims beneficial ownership of these shares.
- ⁽⁴⁾ Includes shares of common stock purchased by Kaiser Foundation Hospitals and The Permanente Federation LLC—Series I. Upon the closing of our IPO, funds affiliated with Kaiser Foundation Hospitals ceased to be a holder of 5% of our common stock.

PIPE Transaction

On May 29, 2012, we entered into a securities purchase agreement, or the Purchase Agreement, with certain accredited investors, including the affiliated investors: Three Arch Partners and Skyline Venture Partners, entities affiliated with Mr. Wan and Dr. Hoffman, members of our board of directors, providing for a private placement, or the Private Placement, of up to \$10.0 million of our securities. At the closing of the Private Placement on June 1, 2012, and pursuant to the Purchase Agreement, we sold shares of common stock and warrants to purchase common stock in “Units,” with each Unit consisting of (i) one share of common stock and (ii) a Warrant to purchase 0.9 of a share of common stock. The per share exercise price of the Warrants was \$3.40. The offering price per Unit was \$3.40 for non-affiliated investors, and \$3.5125 for affiliated investors, which equals the sum of (i) \$3.40, the closing consolidated bid price of the Common Stock on May 29, 2012, plus (ii) \$0.1125 (which is equal to \$0.125 per warrant share, multiplied by 0.9), for an aggregate amount of \$10.0 million. The warrants issued in the Private Placement become exercisable six months after the issuance date, and expire on the five year anniversary of the initial exercisability date.

Entities affiliated with Three Arch Partners and Skyline Venture Partners purchased an aggregate of 569,396 shares of our common stock and 512,456 warrants in the Private Placement, as follows:

<u>Name</u>	<u>Common Stock Purchased in Private Placement</u>	<u>Warrants Purchased in Private Placement</u>	<u>Aggregate Purchase Price</u>
Funds affiliated with Three Arch Partners ⁽¹⁾	284,698	256,228	\$ 1,000,001.73
Funds affiliated with Skyline Venture Partners ⁽²⁾	284,698	256,228	\$ 1,000,001.73

⁽¹⁾ Includes 3,631 shares of common stock and warrants to purchase 3,268 shares of common stock purchased by Three Arch Associates III, L.P., 4,613 shares of common stock and warrants to purchase 4,151 shares of common stock purchased by Three Arch Associates IV, L.P., 67,543 shares of common stock and warrants to purchase 60,789 shares of common stock purchased by Three Arch Partners III, L.P. and 208,911 shares of common stock and warrants to purchase 188,020 shares of common stock purchased by Three Arch Partners IV, L.P. Mark Wan, one of our directors, is managing partner of Three Arch Management III, L.L.C. and Three Arch Management IV, L.L.C., and in such capacities he may be deemed to beneficially own the shares owned by the funds affiliated with Three Arch Partners. Mr. Wan disclaims beneficial ownership of these shares.

⁽²⁾ These shares were purchased by Skyline Venture Partners Qualified Purchaser Fund IV, L.P. Stephen Hoffman, one of our directors, is a Managing Director of Skyline Ventures and as such may be deemed to share voting and dispositive power with respect to all shares of stock purchased by Skyline Venture Partners Qualified Purchasers Fund IV, L.P. Dr. Hoffman disclaims beneficial ownership of these shares.

Investors' Rights Agreement

We entered into an investors' rights agreement with certain holders of our previously outstanding preferred stock and previously outstanding warrants to purchase our preferred stock, including our principal stockholders with which certain of our directors are affiliated. Pursuant to the investors' rights agreement, these holders will have the right to demand that we file a registration statement or request that the common stock issued upon conversion of our previously outstanding preferred stock and the common stock issuable upon the exercise of outstanding warrants to purchase common stock (which, in connection with our IPO, were converted from previously outstanding warrants to purchase our preferred stock), collectively, the registrable securities, be covered by a registration statement that we are otherwise filing. In the event that we propose to register any of our securities under the Securities Act, either for our own account or for the account of other security holders, these holders are entitled to notice of our registration and are entitled to certain piggyback registration rights allowing the holders to include their registrable securities in such registration, subject to certain marketing and other limitations. Pursuant to the investors' rights agreement, the holders of registrable securities have the right to require us to file a registration statement under the Securities Act in order to register the resale of their shares of registrable securities, provided that the registration meets certain thresholds. We may, in certain circumstances, defer such registrations. In an underwritten offering, the managing underwriter has the right, subject to specified conditions, to limit the number of registrable securities such holders may include.

Indemnification Agreements

We have entered into indemnification agreements with each of our current directors and officers. These agreements provide for the indemnification of such persons for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were serving in such capacity. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. Furthermore, we have obtained director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us and have increased the level upon the completion of the our IPO.

Other Transactions

We have entered into various employment related agreements and compensatory arrangements with our directors and executive officers that, among other things, provide for compensatory and certain severance and change in control benefits. For a description of these agreements and arrangements, see the sections entitled “Executive Compensation—Employment Agreements and Arrangements” and “Executive Compensation—Director Compensation—Non-Employee Director Compensation” appearing elsewhere in this proxy statement.

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for Annual Meeting materials with respect to two or more shareholders sharing the same address by delivering a single set of Annual Meeting materials addressed to those shareholders. This process, which is commonly referred to as “householding,” potentially means extra convenience for shareholders and cost savings for companies.

This year, a number of brokers with account holders who are AcelRx stockholders will be “householding” the Company’s proxy materials. A single set of Annual Meeting materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be “householding” communications to your address, “householding” will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in “householding” and would prefer to receive a separate set of Annual Meeting materials, please notify your broker or AcelRx. Direct your written request to Secretary, AcelRx Pharmaceuticals, Inc. at 351 Galveston Drive, Redwood City, CA 94063. Stockholders who currently receive multiple copies of the Annual Meeting materials at their addresses and would like to request “householding” of their communications should contact their brokers.

OTHER MATTERS

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

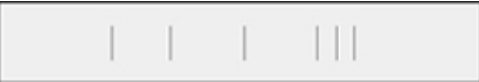
By Order of the Board of Directors

/s/ Thomas A. Schreck

Thomas A. Schreck
Chairman

June 22, 2012

A copy of the Company's Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 2011 is available without charge upon written request to: Corporate Secretary, AcclRx Pharmaceuticals, Inc. at 351 Galveston Drive, Redwood City, CA 94063.



ACELRX PHARMACEUTICALS, INC
 351 GALVESTON DRIVE
 REDWOOD CITY, CA 94063

Investor Address Line 1
 Investor Address Line 2
 Investor Address Line 3
 Investor Address Line 4
 Investor Address Line 5
 John Sample
 1234 ANYWHERE STREET
 ANY CITY, ON A1A 1A1

1 OF 2
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VOTE BY INTERNET - www.proxyvote.com
 Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS
 If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-690-6903
 Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL
 Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.



NAME
 THE COMPANY NAME INC. - COMMON
 THE COMPANY NAME INC. - CLASS A
 THE COMPANY NAME INC. - CLASS B
 THE COMPANY NAME INC. - CLASS C
 THE COMPANY NAME INC. - CLASS D
 THE COMPANY NAME INC. - CLASS E
 THE COMPANY NAME INC. - CLASS F
 THE COMPANY NAME INC. - 401 K

CONTROL # → 000000000000

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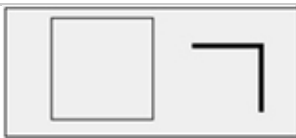
TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

KEEP THIS PORTION FOR YOUR RECORDS
 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

02 0000000000

For All **Withhold All** **For All Except** To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.



The Board of Directors recommends you vote FOR the following:

1. Election of Directors _____
Nominees

01 Guy P. Nohra 02 Thomas A. Schreck 03 Mark. G. Edwards

The Board of Directors recommends you vote FOR the following proposal:

2 Ratification of Ernst & Young LLP as the Company's independent registered public accounting firm for the current fiscal year. **For** **Against** **Abstain**

NOTE: Such other business as may properly come before the meeting or any adjournment thereof.

Yes **No**

Please indicate if you plan to attend this meeting

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name, by authorized officer.

Investor Address Line 1
Investor Address Line 2
Investor Address Line 3
Investor Address Line 4
Investor Address Line 5
John Sample
1234 ANYWHERE STREET
ANY CITY, ON A1A 1A1

0000146384_1 R1.0.0.11699

Signature [PLEASE SIGN WITHIN BOX]	Date
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JOB #

Signature (Joint Owners)	Date
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SHARES
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SEQUENCE #



Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Proxy Statement and Annual Report on Form 10-K are available at www.proxyvote.com.



ACELRX PHARMACEUTICALS, INC.
Annual Meeting of Stockholders
July 24, 2012 12:00 PM
This proxy is solicited by the Board of Directors

The stockholder(s) hereby appoint(s) Richard A. King and James H. Welch, or either of them, as proxies, each with the power to appoint (his/her) substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common stock of ACELRX PHARMACEUTICALS, INC. that the stockholder(s) is/are entitled to vote at the Annual Meeting of stockholder(s) to be held at 12:00 PM, PDT on July 24, 2012, at the Corporate Headquarters at 351 GALVESTON DRIVE, REDWOOD CITY, CA 94063, and any adjournment or postponement thereof.

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

Continued and to be signed on reverse side