

ADVENTRX PHARMACEUTICALS INC

Form PRE 14A

April 11, 2011

Table of Contents

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
SCHEDULE 14A
(Rule 14a-101)
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

ADVENTRX 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)(4) 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.

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

1) Amount Previously Paid:

2) Form, Schedule or Registration Statement No.:

3) Filing Party:

4) Date Filed:

Table of Contents

**ADVENTRX PHARMACEUTICALS, INC.
12390 El Camino Real, Suite 150
San Diego, CA 92130**

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To Be Held June 15, 2011**

The 2011 Annual Meeting of Stockholders of ADVENTRX Pharmaceuticals, Inc. will be held on June 15, 2011 at 9:00 a.m. Pacific time, at the offices of Sheppard, Mullin, Richter & Hampton, LLP, 12275 El Camino Real, Suite 200, San Diego, California 92130. The meeting is being held for the following purposes, as more fully described in the accompanying proxy statement:

1. To elect six directors to hold office until the next annual meeting of stockholders and until their successors are elected and qualified;
2. To ratify the appointment of J.H. Cohn LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2011;
3. To approve the ADVENTRX Pharmaceuticals, Inc. Amended and Restated 2008 Omnibus Incentive Plan;
4. To approve the issuance of up to 13,478,050 shares of our common stock in lieu of cash for milestone payments pursuant to our merger agreement with SynthRx, Inc.; and
5. To transact such other business as may properly come before the meeting and any adjournment or postponement thereof.

Only stockholders of record at the close of business on April 18, 2011 will be entitled to notice of, and to vote at, the meeting and any adjournment or postponement thereof. A list of stockholders entitled to vote at the meeting will be available for inspection by any stockholder for any purpose relating to the meeting during ordinary business hours at our corporate offices located at 12390 El Camino Real, Suite 150, San Diego, California 92130 for ten days prior to the meeting, and will also be available for inspection at the meeting. To obtain directions to be able to attend the meeting and vote in person, please contact our corporate secretary at our principal executive offices referenced in the accompanying proxy statement.

Your vote is important. Please read the proxy statement and the instructions on the enclosed proxy card and then, whether or not you plan to attend the meeting in person, and no matter how many shares you own, please submit your proxy promptly by signing, dating and returning your proxy card in the postage paid envelope provided. This will not prevent you from voting in person at the meeting. It will, however, help to assure a quorum and avoid added proxy solicitation costs.

You may revoke your proxy at any time before the vote is taken by delivering to our corporate secretary a written revocation or a proxy with a later date or by voting your shares in person at the meeting, in which case your prior proxy would be disregarded.

By Order of the Board of Directors,

Brian M. Culley

Chief Executive Officer

San Diego, California

[], 2011

Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting To Be Held on June 15, 2011. This notice of meeting, the proxy statement for the meeting and our annual report for the fiscal year ended December 31, 2010 are available at <https://www.proxydocs.com/anx>.

TABLE OF CONTENTS

	<u>Page</u>
<u>GENERAL INFORMATION ABOUT THE MEETING</u>	1
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	5
<u>BOARD OF DIRECTORS</u>	6
<u>NOMINEES FOR ELECTION TO THE BOARD</u>	6
<u>CORPORATE GOVERNANCE</u>	9
<u>DIRECTOR NOMINATIONS</u>	13
<u>COMMUNICATIONS WITH DIRECTORS</u>	15
<u>EXECUTIVE OFFICERS</u>	16
<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT</u>	17
<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS</u>	19
<u>SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE</u>	19
<u>EXECUTIVE OFFICER COMPENSATION</u>	20
<u>DIRECTOR COMPENSATION</u>	26
<u>AUDIT COMMITTEE REPORT</u>	30
<u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	31
<u>PROPOSAL 1 ELECTION OF DIRECTORS</u>	32
<u>PROPOSAL 2 RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM</u>	32
<u>PROPOSAL 3 APPROVAL OF ADVENTRX PHARMACEUTICALS, INC. AMENDED AND RESTATED 2008 OMNIBUS INCENTIVE PLAN</u>	33
<u>PROPOSAL 4 APPROVAL OF THE ISSUANCE OF UP TO 13,478,050 SHARES OF OUR COMMON STOCK IN LIEU OF CASH FOR MILESTONE PAYMENTS PURSUANT TO THE MERGER AGREEMENT WITH SYNTHRX, INC.</u>	43
<u>OTHER MATTERS</u>	51
<u>INFORMATION INCORPORATED BY REFERENCE</u>	51
<u>STOCKHOLDER PROPOSALS FOR 2012 ANNUAL MEETING</u>	52

Table of Contents

**ADVENTRX Pharmaceuticals, Inc.
12390 El Camino Real, Suite 150
San Diego, CA 92130
(858) 552-0866**

PROXY STATEMENT

**2011 ANNUAL MEETING OF STOCKHOLDERS
To Be Held On June 15, 2011**

GENERAL INFORMATION ABOUT THE MEETING

Date, Time and Place

ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the Company, we or us), is furnishing this proxy statement and the enclosed proxy card in connection with the solicitation of proxies by our board of directors for use at our 2011 Annual Meeting of Stockholders to be held on June 15, 2011, at 9:00 a.m. Pacific time, at the offices of Sheppard, Mullin, Richter & Hampton, LLP, 12275 El Camino Real, Suite 200, San Diego, California 92130 (the Annual Meeting), and at any adjournment or postponement thereof. These materials are first being mailed to stockholders on or about [], 2011.

Purpose of the Annual Meeting

The Annual Meeting is being held for the following purposes:

1. To elect six directors to hold office until the next annual meeting of stockholders and until their successors are elected and qualified;
2. To ratify the appointment of J.H. Cohn LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2011;
3. To approve the ADVENTRX Pharmaceuticals, Inc. Amended and Restated 2008 Omnibus Incentive Plan, which we refer to as the Restated 2008 Plan Proposal in this proxy statement;
4. To approve the issuance of up to 13,478,050 shares of our common stock in lieu of cash for milestone payments pursuant to our merger agreement with SynthRx, Inc., which we refer to as the SynthRx Milestone Shares Proposal in this proxy statement; and

5. To transact such other business as may properly come before the meeting and any adjournment or postponement thereof.

Record Date; Shares Outstanding and Entitled to Vote

Our board of directors has fixed April 18, 2011 as the record date for the determination of holders of our common stock entitled to notice of, and to vote at, the Annual Meeting and any adjournment or postponement thereof. At the close of business on the record date, we had [] shares of common stock issued and outstanding. Each stockholder of record as of the record date is entitled to one vote at the Annual Meeting for each share of common stock held by such stockholder on the record date. Stockholders do not have cumulative voting rights. No other shares of our capital stock are entitled to notice of, or to vote at, the Annual Meeting.

How to Vote Your Shares

If you hold your shares in your own name, you may submit a proxy by mail, or you may vote by attending the Annual Meeting and voting in person. If you choose to submit a proxy by mail, simply mark the enclosed proxy card, date and sign it, and return it in the postage paid envelope provided. By casting your vote by proxy, you are authorizing the individuals listed on the proxy card to vote your shares in accordance with your instructions. You may also attend the Annual Meeting and vote in person.

Table of Contents

YOUR VOTE IS VERY IMPORTANT. You should submit your proxy even if you plan to attend the Annual Meeting and vote in person.

If your shares are held in the name of a broker, bank or other nominee, you will receive instructions from the holder of record that you must follow for your shares to be voted. The availability of telephonic or Internet voting will depend on the broker's, bank's or other nominee's voting process. Please check with your broker, bank or other nominee and follow the voting procedure your broker, bank or other nominee provides to vote your shares. Also, please note that if the holder of record of your shares is a broker, bank or other nominee and you wish to vote in person at the Annual Meeting, you must request a legal proxy from your broker, bank or other nominee that holds your shares and present that proxy and proof of identification at the Annual Meeting.

How to Change Your Vote

You may revoke your proxy at any time before it is exercised by:

Delivering to our corporate secretary a written notice of revocation, dated later than the proxy you wish to revoke, before voting begins at the Annual Meeting;

Delivering to our corporate secretary a duly executed proxy bearing a date later than the proxy you wish to revoke, before voting begins at the Annual Meeting; or

Attending the Annual Meeting and voting in person (your attendance at the Annual Meeting, in and of itself, will not revoke your proxy).

Any written notice of revocation or later dated proxy should be delivered to:

ADVENTRX Pharmaceuticals, Inc.
12390 El Camino Real, Suite 150
San Diego, CA 92130
Attention: Corporate Secretary

Alternatively, you may hand deliver a written revocation notice or a later dated proxy to our corporate secretary at the Annual Meeting before voting begins.

If your shares of our common stock are held by a broker, bank or other nominee, you must follow the instructions provided by the broker, bank or other nominee if you wish to change your vote.

Proxies

If you provide specific voting instructions on your proxy card, your shares will be voted at the Annual Meeting in accordance with your instructions. If you hold shares in your name and sign and return a proxy card without marking specific voting instructions, your shares will be voted:

For each of the nominees to our board of directors listed on the enclosed proxy card and in this proxy statement,

For the ratification of the appointment of J.H. Cohn LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2011,

For the Restated 2008 Plan Proposal, and

For the SynthRx Milestone Shares Proposal.

At this time, we are unaware of any matters, other than those set forth above, that may properly come before the Annual Meeting. If any other matters properly come before the Annual Meeting, the persons named in the enclosed proxy card, or their duly constituted substitutes acting at the Annual Meeting and any adjournment or postponement thereof, will be deemed authorized to vote or otherwise act on such matters in accordance with their judgment.

The persons named in the enclosed proxy card, or their duly constituted substitutes acting at the Annual Meeting and any adjournment or postponement thereof, may propose and vote for one or more adjournments or postponements of the Annual Meeting, including adjournments or postponements to permit further solicitations of

Table of Contents

proxies. Proxies solicited may be voted only at the Annual Meeting and any adjournment or postponement thereof and will not be used for any other meeting of our stockholders.

Broker Non-Votes

A broker non-vote occurs when a nominee (typically a broker or bank) holding shares for a beneficial owner (typically referred to as shares being held in street name) submits a proxy for the Annual Meeting, but does not vote on a particular proposal because the nominee has not received voting instructions from the beneficial owner and does not have discretionary authority to vote the shares with respect to that proposal. Shares that constitute broker non-votes will be counted as present at the Annual Meeting for the purpose of establishing a quorum, but will not be counted as having voting power to vote on the proposal in question. Brokers generally have discretionary authority to vote on routine matters. The ratification of the appointment of J.H. Cohn LLP as our independent registered public accounting firm is considered a routine matter. The election of directors, the Restated 2008 Plan Proposal and the SynthRx Milestone Shares Proposal are considered non-routine matters and brokers do not have discretionary authority to vote on these proposals.

Quorum and Required Votes

A majority of the aggregate number of shares of our common stock issued and outstanding and entitled to vote at the Annual Meeting must be present in person or by proxy in order for there to be a quorum at the Annual Meeting and for any action to be taken at the Annual Meeting. If you submit a properly executed proxy, regardless of whether you abstain from voting on one or more matters, your shares will be counted as present at the Annual Meeting for the purpose of determining a quorum.

Proposal 1: If a quorum exists at the Annual Meeting, the affirmative vote of the holders of a majority of the shares of common stock having voting power present in person or represented by proxy at the Annual Meeting is required for the election of each director nominee. This majority voting standard means that a director nominee will be elected if the number of shares voted For that director nominee exceeds the number of shares voted Against and that Abstain from voting with respect to that director nominee. Accordingly, an abstention will have the same effect as a negative vote. Broker non-votes will not be counted and will have no effect on the outcome of this proposal. Pursuant to our current corporate governance guidelines, each of our incumbent directors tendered his resignation in advance of being nominated for election at the Annual Meeting, with the effectiveness of such resignation subject to and contingent upon (a) the director's failure to receive a sufficient number of votes for re-election at the Annual Meeting and (b) our board of directors' acceptance of the resignation. Accordingly, the continued service on our board of directors by any incumbent director who is not elected because he does not receive the requisite affirmative votes at the Annual Meeting will be subject to our board of directors' determination as to whether to accept or reject his resignation.

Proposal 2: If a quorum exists at the Annual Meeting, the affirmative vote of the holders of a majority of the shares of common stock having voting power present in person or represented by proxy at the Annual Meeting is required to ratify the appointment of J.H. Cohn LLP. An abstention will have the same effect as a negative vote. A broker or other nominee will generally have discretionary authority to vote on this proposal because it is considered a routine matter, and therefore we do not expect broker non-votes with respect to this proposal.

Proposal 3: If a quorum exists at the Annual Meeting, the affirmative vote of the holders of a majority of the shares of common stock having voting power present in person or represented by proxy at the Annual Meeting is required to approve the Restated 2008 Plan Proposal. An abstention will have the same effect as a negative vote. Broker non-votes will not be counted and will have no effect on the outcome of this proposal.

Proposal 4: If a quorum exists at the Annual Meeting, the affirmative vote of the holders of a majority of the shares of common stock having voting power present in person or represented by proxy at the Annual Meeting is required to approve the SynthRx Milestone Shares Proposal. An abstention will have the same effect as a negative vote. Broker non-votes will not be counted and will have no effect on the outcome of this proposal.

Table of Contents

Solicitation of Proxies

We are soliciting proxies from our stockholders on behalf of our board of directors and will pay for all costs incurred in connection with the solicitation. In addition to solicitation by mail, our directors, officers and employees may solicit proxies from our stockholders in person or by telephone, facsimile, e-mail or other electronic methods without additional compensation other than reimbursement for their actual expenses.

We may retain a proxy solicitation firm to assist us in the solicitation of proxies for the Annual Meeting. We would pay such firm, if any, customary fees expected to be no more than \$15,000 and would reimburse the firm for its reasonable out-of-pocket expenses.

Arrangements also will be made with brokerage firms and other custodians, nominees and fiduciaries for the forwarding of solicitation material to the beneficial owners of stock held of record by such persons, and we will reimburse such custodians, nominees and fiduciaries for their reasonable out-of-pocket expenses in connection therewith.

If You Receive More Than One Proxy Card

If you receive more than one proxy card, it means you hold shares that are registered in more than one account. To ensure that all of your shares are voted, please mark your votes and date, sign and return each proxy card.

Householding Information

The Securities and Exchange Commission, or SEC, has adopted rules that permit brokers, banks and other nominees to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single copy of such document addressed to those stockholders. This process, which is commonly referred to as householding, potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of brokers, banks and other nominees with account holders who are our stockholders may be householding our proxy materials. This means that only one copy of this proxy statement may have been sent to multiple stockholders in a household. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement and annual report from the other stockholder(s) sharing your address, please (i) notify your broker, bank or other nominee, (ii) direct your written request to ADVENTRX Pharmaceuticals, Inc., 12390 El Camino Real, Suite 150, San Diego, California 92130, Attn: Corporate Secretary or (iii) contact us by phone at (858) 552-0866. We undertake to deliver promptly, upon any such oral or written request, a separate copy of our proxy materials to a stockholder at a shared address to which a single copy of these documents was delivered. Stockholders who currently receive multiple copies of our proxy materials at their address and would like to request householding of their communications should notify their broker, bank or other nominee, or contact our corporate secretary at the above address or phone number.

If you have any questions about voting your shares, please contact us at (858) 552-0866.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This proxy statement contains or incorporates by reference forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of historical fact, are statements that could be deemed forward-looking statements, including, but not limited to, statements regarding our business strategy, expectations and plans regarding our product candidates, our objectives for future operations and our future financial position. When used in this proxy statement or in documents incorporated by reference in this proxy statement, the words believe, may, could, will, estimate, continue, anticipate, intend, expect, indicate, seek, should or would and similar expressions identify forward-looking statements. Among the factors that could cause or contribute to material differences between our actual results and those indicated from the forward-looking statements are risks and uncertainties inherent in our business, including, but not limited to:

the extent to which we acquire new technologies, product candidates, products or businesses and our ability to integrate them, including the assets we have acquired from SynthRx, Inc., successfully into our operations;

our ability, or that of a future partner, to successfully develop and obtain regulatory approval for our product candidates, including ANX-188, and, if approved, to successfully commercialize them in the U.S. and/or elsewhere;

our ability to obtain stockholder approval of the issuance of milestone-related shares in connection with our acquisition of SynthRx, Inc. on a timely basis, or at all, and our ability to pay cash in lieu of the milestone-related shares if our stockholders do not approve the issuance of those shares;

our ability to obtain stockholder approval to complete any other product pipeline expansion transaction, if necessary, on a timely basis, or at all;

our ability to obtain additional funding to develop and commercialize our product candidates, including ANX-188 and any others we may acquire in the future, on a timely basis or on acceptable terms, or at all;

the extent to which we rebuild our workforce and our ability to attract and retain qualified personnel and manage growth;

delays in the commencement or completion of nonclinical testing, bioequivalence or clinical trials of or manufacturing, regulatory or launch activities related to our product candidates;

the success of future bioequivalence or clinical trials, including the contemplated phase 3 clinical trial of ANX-188 for the treatment of sickle cell crisis in a pediatric population;

whether any of our product candidates for which we receive regulatory approval, if any, achieve broad market acceptance;

competition in the marketplace for our products, if any are approved;

the satisfactory performance of third parties on whom we rely significantly to conduct our nonclinical testing and bioequivalence and clinical studies and other aspects of our development programs; undesirable side effects that our product candidates may cause;

our ability to protect our intellectual property rights with respect to our product candidates and proprietary technology; and

claims against us for infringing the proprietary rights of third parties.

We caution you that any forward-looking statement in this proxy statement or in documents incorporated by reference in this proxy statement reflects only our belief at the time the statement is made. We undertake no obligation to update any forward-looking statements to reflect subsequent events or circumstances.

Table of Contents**BOARD OF DIRECTORS**

The current members of our board of directors, their ages as of April 8, 2011, the positions they hold and the year in which they commenced service on our board, are as follows:

Name	Age	Position/Committee Membership*	Director Since
Michael M. Goldberg	52	Audit Committee, Compensation Committee (chair), Special Committee and Pricing Committee	2004
Odysseas D. Kostas	36	Audit Committee and Special Committee (chair)	2010
Jack Lief	65	Chair of the Board, Audit Committee (chair), Compensation Committee, Nominating & Governance Committee and Pricing Committee	2006
Mark J. Pykett	47	Compensation Committee, Nominating & Governance Committee (chair) and Pricing Committee	2004
Eric K. Rowinsky	54	Nominating & Governance Committee and Special Committee	2008
Lewis J. Shuster	55		2011

* Each of the directors served in the capacity set forth in the table for all of 2010, except Mr. Shuster who was appointed to our board of directors in April 2011. Dr. Pykett served on the audit committee until February 2010. Mr. Lief was appointed to the nominating & governance committee and Dr. Pykett was appointed to the compensation committee in June 2010.

Our certificate of incorporation and bylaws provide that each director elected or appointed to our board of directors shall hold office until the next annual meeting of stockholders following such election or appointment and until the director's successor is elected and qualified. Our bylaws provide that vacancies on our board of directors, including those resulting from an increase in the authorized number of directors, may be filled by a majority of the remaining directors, even if less than a quorum, or by a sole remaining director. Any director appointed as a result of a vacancy holds office until the next annual meeting of stockholders and until a successor is elected and qualified. Pursuant to our bylaws, the authorized number of directors may be not less than three nor more than nine, with the exact number to be fixed by resolutions adopted from time to time by our board of directors. Our board of directors has set the current number of authorized directors at six. Accordingly, six directors have been nominated by our board of directors for election at the Annual Meeting.

NOMINEES FOR ELECTION TO THE BOARD

Each of our current directors has been nominated for re-election to our board of directors. The paragraphs below provide information about each director that includes each director's principal occupation and business experience during at least the past five years, the names of other publicly held companies at which he currently serves as a director or has served as a director during the past five years, information regarding involvement in certain legal or

administrative proceedings during the past ten years, if applicable, and the experience, qualifications, attributes or skills that led the nominating and governance committee and our board of directors to determine that the person should serve on our board of directors. There are no family relationships among any of our directors and executive officers.

Michael M. Goldberg, M.D., M.B.A. Dr. Goldberg has served as a director since January 2004. Dr. Goldberg currently is a managing partner of Montaur Capital Partners, an investment firm, a position he has held since January 2007. From August 1990 to January 2007, Dr. Goldberg was chairman and chief executive officer of Emisphere Technologies, Inc., a biopharmaceutical company. Prior to this, Dr. Goldberg was a vice president for The First Boston Corporation, where he was a founding member of the Healthcare Banking Group. Dr. Goldberg serves as a member of the board of directors of Alliqua, Inc., a biomedical products company focused in the fields of

Table of Contents

drug delivery, advanced wound care and liver health preservation, and, from June 2009 to August 2010, served as a director of Urigen Pharmaceuticals, Inc., a specialty pharmaceutical company. He received a B.S. from Rensselaer Polytechnic Institute, an M.D. from Albany Medical College of Union University and an M.B.A. from Columbia University Graduate School of Business. Dr. Goldberg's years of executive experience at a development-stage biopharmaceutical company give him unique insight to our product development, operational and financing challenges and opportunities.

Odysseas D. Kostas, M.D. Dr. Kostas has served as a director since February 2010. Dr. Kostas is currently an attending physician and one of seven hospitalists at Greenwich Hospital, a member of the Yale New Haven Health System and a subsidiary of Greenwich Health Care Services, Inc. He has been at Greenwich Hospital since May 2008. At Greenwich Hospital, Dr. Kostas is a member of various committees that oversee aspects of the hospital's operational decision-making. Since March 2007, Dr. Kostas has provided advisory services to boards of directors of biotechnology companies, primarily in the area of strategic and partnering transactions, including ImClone Systems Incorporated prior to its sale to Eli Lilly and Company in November 2008. In May 2003, Dr. Kostas founded a private medical practice that he owned and operated, treating over 2,000 patients, until May 2008. Dr. Kostas holds a B.S. in biology from the Massachusetts Institute of Technology and an M.D. from the University of Texas Southwestern Medical School and is board certified in internal medicine. Dr. Kostas' years of experience as a practicing physician and with hospital and private practice operational decision-making provides our board with perspective on the potential value of our product candidates and drug development programs to patients and healthcare practitioners, our potential customers.

Jack Lief. Mr. Lief has served as a director since September 2006 and as chair of our board of directors since May 2007. Mr. Lief is a co-founder and since April 1997 has served as president, chief executive officer and a director of Arena Pharmaceuticals, Inc., a publicly held clinical-stage biopharmaceutical company focused on discovering, developing and commercializing oral drugs that target G protein-coupled receptors in four major therapeutic areas: cardiovascular, central nervous system, inflammatory and metabolic diseases. He also has served as Arena's chairman of the board since October 2007. From 1995 to April 1997, Mr. Lief served as an advisor and consultant to numerous biopharmaceutical organizations. From 1989 to 1994, Mr. Lief served as senior vice president, corporate development and secretary of Cephalon, Inc., a biopharmaceutical company. From 1983 to 1989, Mr. Lief served as director of business development and strategic planning for Alpha Therapeutic Corporation, a manufacturer of biological products. Mr. Lief joined Abbott Laboratories, a pharmaceutical company, in 1972, where he served until 1983, most recently as the head of international marketing research. Mr. Lief is an executive board member of BIOCOM, a life science industry association representing more than 550 member companies in Southern California, and he was the chairman of the board of directors of BIOCOM from March 2005 to March 2006. Mr. Lief holds a B.A. from Rutgers University and an M.S. in psychology (experimental and neurobiology) from Lehigh University. Mr. Lief's extensive and current executive leadership and management experience in biopharmaceutical companies brings to our board of directors the perspective of a leader managing similar drug development, regulatory, commercialization and financing issues as our company. In addition, his over 40 years of experience in the life science industry provides unique insight to our board.

Mark J. Pykett, Ph.D., M.B.A., V.M.D. Dr. Pykett has served as a director since February 2004. Dr. Pykett currently is president and chief executive officer of Neoprobe Corporation, a biomedical company focused on oncology surgical and diagnostic products, a position to which he was appointed in April 2011 from executive vice president and chief development officer, which he held since November 2010. Dr. Pykett previously co-founded Talaris Advisors LLC, a privately held integrated, drug development advisory firm, and served as its chief executive officer from January 2010 to November 2010. From November 2004 until January 2010, Dr. Pykett was president and chief operating officer of Alseres Pharmaceuticals, Inc. (formerly Boston Life Sciences, Inc.), a publicly held company engaged in the development of therapeutic and diagnostic products primarily for disorders in the central nervous system. From May 1996 until April 2003, Dr. Pykett served as president and chief executive officer and a director of Cytomatrix, LLC, a

privately held biotechnology company focused on the research, development and commercialization of novel cell-based therapies that Dr. Pykett co-founded and that was acquired by Cordlife, Pte. Ltd., a subsidiary of CyGenics Ltd., a publicly held biotechnology company listed on the Australian Stock Exchange. From April 2003 to February 2004, Dr. Pykett served as president of Cordlife and then as president and director of CyGenics from February 2004 until November 2004. From 1997 to 2004, Dr. Pykett held an adjunct

Table of Contents

faculty position at the Harvard School of Public Health. Dr. Pykett graduated Phi Beta Kappa, summa cum laude from Amherst College, with a veterinary degree, and Phi Zeta, summa cum laude, from the University of Pennsylvania with a doctorate in molecular biology. He also earned an M.B.A., Beta Gamma Sigma, from Northeastern University. Dr. Pykett completed post-doctoral fellowships at the University of Pennsylvania and Harvard University. Dr. Pykett's extensive drug development experience and his years of executive experience at development-stage biopharmaceutical companies provide our board with perspective on drug development and regulatory strategy for our product candidates and insight to our operational and financial challenges and opportunities.

Eric K. Rowinsky, M.D. Dr. Rowinsky has served as a director since February 2008. Dr. Rowinsky currently is chief executive officer of Primrose Therapeutics, Inc., a privately held specialty pharmaceutical company focused on polycystic kidney disease, and serves as an independent consultant to several biotechnology, venture capital, private equity and consulting companies that focus on, or invest in, the development of cancer therapies. He has been an adjunct professor of medicine (division of medical oncology) at the New York University School of Medicine since September 2008. From February 2005 to December 2009, Dr. Rowinsky served as the chief medical officer of ImClone Systems Incorporated, a biopharmaceutical company focused on advancing oncology care that was acquired by Eli Lilly and Company in November 2008, and additionally served as executive vice president of ImClone from December 2007 to December 2009 and senior vice president from February 2005 to December 2007. His responsibilities at ImClone included managing clinical development, medical affairs, regulatory affairs and corporate strategy. Dr. Rowinsky currently serves as a member of the boards of directors of Biogen Idec Inc., a global biotechnology company, and Neoprobe Corporation, a biomedical company focused on oncology surgical and diagnostic products and, from December 2007 to March 2008, served as a director of Tapestry Pharmaceuticals, Inc., a biopharmaceutical company focused on the development of cancer therapies. Dr. Rowinsky held the position of director of the Institute of Drug Development (IDD) at the Cancer Therapy and Research Center from 2002 to 2004, served as the director of clinical research at the IDD from 1996 to 2002 and held the SBC Endowed Chair for Early Drug Development at the IDD. From 1996 to 2006, Dr. Rowinsky was also a clinical professor of medicine (division of medical oncology and hematology) at the University of Texas Health Science Center, San Antonio, Texas, and, from 1988 until 1996, an associate professor of oncology at the Johns Hopkins University School of Medicine. He served on the Board of Scientific Counselors of the National Cancer Institute from 2004 to 2007. Prior to joining ImClone, Dr. Rowinsky was a longstanding National Cancer Institute principal investigator on U01 anticancer drug development grants and a lead investigator on early developmental studies of many classes of cytotoxic agents and targeted therapeutics, including paclitaxel, docetaxel, irinotecan, vinorelbine, topotecan, erlotinib, gefitinib, panitumumab, temsirolimus and ridaforolimus. Dr. Rowinsky is the editor-in-chief of Investigational New Drugs and an associate editor of Cancer Research, Clinical Cancer Research, Annals of Oncology, and several other oncology journals and has published over 295 manuscripts in both the preclinical and clinical research fields. Dr. Rowinsky received a B.A. degree from New York University and an M.D. degree from the Vanderbilt University School of Medicine. Following his residency in internal medicine, he completed fellowship training in medical oncology at the Johns Hopkins University School of Medicine. Dr. Rowinsky's expertise in anticancer drug development, his extensive experience as a member of scientific advisory boards, oncology advisory boards and project advisory boards of pharmaceutical and biotechnology companies, and his experience presenting aspects of several new drug applications to the U.S. Food and Drug Administration provide unique insight to our board of directors.

Lewis J. Shuster. Mr. Shuster joined our board of directors in April 2011 immediately following our acquisition of SynthRx, Inc. In 2002, Mr. Shuster founded Shuster Capital, a strategic and operating advisor to and angel investor in life science companies, and has served as its chief executive officer since that time. From June 2003 to November 2007, Mr. Shuster served as chief executive officer of Kemia, Inc., a drug discovery and development company. From February 2000 to December 2001, Mr. Shuster held various operating executive positions at Invitrogen Corporation, a biotechnology company that merged with Applied Biosystems Inc. and became Life Technologies Corporation. Between 1994 and 1999, Mr. Shuster served as chief financial officer and executive vice president corporate development of Pharmacoepia, Inc., a drug discovery product and service company, and also as president and chief

operating officer of Pharmacopeia Labs, a division of Pharmacopeia, Inc. Mr. Shuster joined Human Genome Sciences, Inc. as its first employee in September 1992 and served as its executive vice president, operations and finance until 1994. Mr. Shuster currently serves a member of the board of

Table of Contents

directors of Complete Genomics, Inc., a life science company that has developed and commercialized a DNA sequencing platform, and, from September 2009 to February 2010, served as a director of Sorrento Therapeutics, Inc., a biopharmaceutical company. Mr. Shuster received a B.A. in Economics from Swarthmore College and an M.B.A. from Stanford University. Mr. Shuster's extensive executive background in strategic planning and managing rapid operations growth for multiple public and private life science companies provide our board of directors with expertise in evaluating and managing the operational and financial challenges and opportunities we may face as we grow our company.

CORPORATE GOVERNANCE

Director Independence

Our board of directors has determined that each of our current directors, Dr. Goldberg, Dr. Kostas, Mr. Lief, Dr. Pykett, Dr. Rowinsky and Mr. Shuster, is an independent director as such term is defined in Section 803A(2) of the NYSE Amex LLC Company Guide.

In addition to the consulting services transaction involving Dr. Rowinsky described below Director Compensation Consulting Services Agreement with Eric K. Rowinsky, in making its independence determinations, our board of directors considered the following transactions, relationships or arrangements:

With respect to Dr. Kostas, our board of directors considered that we are required to cause our board of directors to nominate Dr. Kostas to our board of directors as the Purchaser Designee pursuant to the terms of that certain Rights Agreement, dated July 27, 2005, as amended, or the Rights Agreement, as well as Dr. Kostas' relationship with certain entities affiliated with Carl C. Icahn, which entities are Purchasers under the Rights Agreement, and such entities (a) ownership position in our company and (b) rights under the Rights Agreement entitling them to, among other things, participate in future sales by us of our securities and cause our board of directors to nominate a director nominee selected by them. Our board of directors also considered the consulting services Dr. Kostas provided to us in 2008 and the fees we paid to him for those services, which were less than \$5,000 in the aggregate.

With respect to Drs. Pykett, Rowinsky and Goldberg, our board of directors considered that each of them has a relationship with a public company that is unrelated to us. Dr. Pykett is the president and chief executive officer of, Dr. Rowinsky is a member of the board of directors and compensation, nominating and governance committee of and Dr. Goldberg is a managing partner of an investment firm that is a principal investor in that public company.

With respect to Dr. Pykett, our board of directors considered the consulting services provided to us in 2010 by Talaris Advisors LLC, a privately held integrated drug development advisory firm, and the fees we paid to Talaris for those services, which were \$98,000 in the aggregate. Dr. Pykett was the chief executive officer and a member of Talaris at the time such services were provided to us.

With respect to Mr. Shuster, our board of directors considered that he was appointed to our board of directors in connection with our obligation under our merger agreement with SynthRx, Inc. to appoint an individual to our board of directors who was proposed by SynthRx and reasonably acceptable to us.

After considering the foregoing transactions, relationships or arrangements, our board of directors determined that none of them would interfere with Dr. Goldberg's, Dr. Kostas', Dr. Pykett's, Dr. Rowinsky's or Mr. Shuster's ability to exercise independent judgment in carrying out the responsibilities of a director.

Board Committees

Our board of directors currently has a standing audit committee, compensation committee and nominating and governance committee. Currently, our board of directors also has a special committee and a pricing committee, but these committees have limited terms.

Audit Committee. The audit committee currently consists of Mr. Lief (chair), Dr. Goldberg and Dr. Kostas. Dr. Kostas was appointed to the audit committee in February 2010. Dr. Pykett served as a member of the audit

Table of Contents

committee until February 2010. Our board of directors has determined that each member of the audit committee is an independent director under Section 803A(2) of the NYSE Amex LLC Company Guide and meets the applicable additional eligibility standards for audit committee service under Section 803B(2) of the NYSE Amex LLC Company Guide. In addition, our board of directors has determined that Mr. Lief qualifies as an audit committee financial expert as defined in Item 407(d)(5) of Regulation S-K under the Securities Exchange Act of 1934, as amended. The purpose of the audit committee is to oversee our accounting and financial reporting processes and audits of our financial statements and the effectiveness of our internal control over financial reporting. The responsibilities of the audit committee include appointing and providing for the compensation of an independent registered public accounting firm to conduct an annual audit of our financial statements, overseeing the work and evaluating the performance of the independent auditor, reviewing and evaluating our accounting principles and practices, approving all professional services to be provided to us by our independent registered public accounting firm, reviewing and overseeing any related party transactions, overseeing implementation and enforcement of our insider trading policy and reviewing and evaluating any significant financial risk exposures facing the Company and the steps our management has taken to control and monitor such exposures. The audit committee is governed by a written charter approved by our board of directors.

Compensation Committee. The compensation committee currently consists of Dr. Goldberg (chair), Mr. Lief and Dr. Pykett. Dr. Pykett was appointed to the compensation committee in June 2010. Our board of directors has determined that each member of the compensation committee is an independent director under Section 803A(2) of the NYSE Amex LLC Company Guide. The compensation committee reviews, approves and administers all compensation arrangements for executives, administers our equity-based compensation plans, establishes and reviews general policies relating to the compensation and benefits of our executives and other personnel, evaluates the relationship between executive officer compensation policies and practices and corporate risk management to confirm those policies and practices do not incentivize excessive risk-taking, and evaluates and makes recommendations to our board of directors regarding the compensation of our non-employee directors. The compensation committee has authority to select, engage, compensate and terminate independent compensation consultants, legal counsel and such other advisors as it deems necessary and advisable to assist it in carrying out its responsibilities and functions. The compensation committee is governed by a written charter approved by our board of directors.

Nominating and Governance Committee. The nominating and governance committee currently consists of Dr. Pykett (chair), Dr. Rowinsky and Mr. Lief, each of whom our board of directors has determined is an independent director under Section 803A(2) of the NYSE Amex LLC Company Guide. Mr. Lief was appointed to the compensation committee in June 2010. The nominating and governance committee's responsibilities include identifying, evaluating and recommending to our board of directors nominees for possible election to our board of directors, evaluating and making recommendations to our board of directors regarding its size, composition and leadership structure, assessing and making recommendations to our board of directors regarding our corporate governance guidelines and providing oversight with respect to corporate governance and succession planning matters. The nominating and governance committee is governed by a written charter approved by our board of directors.

Special Committee. The special committee was established by our board of directors in June 2010 and currently consists of Dr. Kostas (chair), Dr. Goldberg and Dr. Rowinsky. The special committee's responsibilities include identifying, evaluating and recommending to our board of directors product acquisition opportunities, overseeing regulatory affairs with respect to our product candidates and assessing and making recommendations to our board of directors regarding our operating budget. The special committee is governed by a written charter approved by our board of directors. The special committee will automatically dissolve in June 2011 unless our board of directors determines to extend its existence and authority beyond that date.

Pricing Committee. The pricing committee was established by our board of directors in March 2010 and currently consists of Dr. Goldberg, Mr. Lief and Dr. Pykett. The pricing committee is authorized and empowered to exercise the

authority of our board of directors in connection with any proposed offer or sale of our securities intended to raise additional capital. The pricing committee will automatically dissolve in December 2011 unless our board of directors determines to extend its existence and authority beyond that date.

Table of Contents

Charters for the audit committee, the compensation committee and the nominating and governance committee, as well as our corporate governance guidelines, are posted on our corporate website at: www.adventrx.com.

Meetings of the Board and its Committees

As required under the rules of the NYSE Amex and our corporate governance guidelines, our board of directors meets on a regular basis as often as necessary to fulfill its responsibilities, including at least once each quarter, and our independent directors meet at least annually in executive session without the presence of non-independent directors and management. During 2010, our board of directors met 14 times and took action by unanimous written consent once, the audit committee met four times, the compensation committee met once, the nominating and governance committee met five times, the special committee met twice (and had numerous other informal discussions) and the pricing committee met three times. Each member of our board of directors nominated for re-election at the Annual Meeting who served on our board during all or part of 2010 attended 75% or more of the aggregate of (i) the total number of board meetings held during the period of such member's service and (ii) the total number of meetings of committees on which such member served during the period of such member's service.

Procedures for Determining Executive and Director Compensation

The compensation committee was formed to, among other things, assist our board of directors in the discharge of its responsibilities with respect to compensation of our executive officers and non-employee directors. In accordance with its charter, the compensation committee has authority to determine the amount, form and terms of compensation of our chief executive officer and other officers, and to take such action, and to direct us to take such action, as it deems necessary or advisable to compensate our chief executive officer and other officers in a manner consistent with its determinations, and shall deliberate and vote on all such actions outside the presence of our chief executive officer and other officers. The compensation committee is responsible for reviewing, at least annually, the performance of our chief executive officer and other officers, including in light of any goals and objectives established for such performance, and, in light of such review, determining each officer's compensation.

In accordance with its charter, the compensation committee also has authority to establish our general compensation policies and practices and to administer plans and arrangements established pursuant to such policies and practices. In addition, the compensation committee has authority to administer our equity compensation plans, including without limitation to recommend the adoption of such plans, to recommend the reservation of shares of our common stock for issuance thereunder, to amend and interpret such plans and the awards and agreements issued pursuant thereto, and to make awards to eligible persons under the plans and determine the terms of such awards, including any such awards to our chief executive officer and other officers.

With respect to non-employee director compensation, the compensation committee reviews such compensation practices and policies at least annually and makes a recommendation to our board of directors as to the amount, form and terms of non-employee director compensation. Our board of directors, taking the compensation committee's recommendation into consideration, sets the amount, form and terms of non-employee director compensation.

Except with respect to its responsibilities regarding setting compensation for our chief executive officer and our other officers, the compensation committee may delegate its authority to individual members of the compensation committee or other members of our board of directors. In addition, to the extent permitted by applicable law and regulations, the compensation committee may delegate to one or more of our officers (or other appropriate supervisory personnel) the authority to grant stock options, stock appreciation rights, restricted stock units and performance units to our employees (who are not officers or members of our board of directors), including employees of any subsidiary of the Company; provided, however that (a) the number of shares of our common stock underlying such options, stock appreciation rights, restricted stock units and performance units are consistent with guidelines previously approved by

the compensation committee; (b) the per-share exercise or purchase price of such awards equals the fair market value of our common stock on the date of grant; and (c) the vesting and other terms that apply to such awards are the same terms as apply under our standard form of agreement under the applicable equity compensation plan, provided that such officer(s) may, in such officer(s) discretion, grant awards that are fully vested on the date of grant of the award or grant awards with more restrictive vesting requirements.

Table of Contents

During 2010 and until March 2011, our chief executive officer and our president and chief operating officer were our only executive officers. For 2010, the compensation committee met in the first quarter of the year to review and evaluate 2009 performance and establish executive officer compensation for 2010, which consisted of a base salary, an opportunity for cash bonuses based on 2010 corporate performance under a short-term incentive plan, and stock option awards. The compensation committee met in the first quarter of 2011 to review and evaluate 2010 performance against corporate objectives established in the first quarter of 2010, taking into account the Company's change in business strategy during 2010, and to award cash bonuses to the officers under the short-term incentive plan adopted by the compensation committee in 2010, which are reflected in the Summary Compensation Table under Executive Compensation below. With respect to our executive officers' role in the compensation process, our chief executive officer and our president and chief operating officer present the compensation committee with an assessment of their performance and a proposal for their compensation packages, which the compensation committee considers in making its determinations. However, the executive officers are not present during the compensation committee's deliberation and determination of their compensation.

Since 2007, the Company and the compensation committee have turned to Frederic W. Cook & Co., Inc., a nationally-recognized compensation consulting firm, to provide advice regarding compensation practices and programs. We engaged F.W. Cook in 2010 to evaluate our non-employee director compensation policies and practices and present the compensation committee with its assessment and recommendations. Following F.W. Cook's assessment and taking its recommendations into account, the compensation committee made a recommendation to our board of directors regarding a 2010 director compensation policy, which consisted of a quarterly cash retainer, meeting fees and stock option awards, and our board of directors adopted the policy recommended by the compensation committee. With respect to executive officer compensation, the compensation committee did not engage F.W. Cook in 2010. However, in light of F.W. Cook's familiarity with our company and industry, our executive officers contacted F.W. Cook with certain specific questions to assist them in providing input to the compensation committee regarding executive compensation matters. Neither F.W. Cook nor any of its affiliates provided any services to us in 2010 apart from those described above.

Board Leadership Structure and Role in Risk Oversight

The leadership structure of our board of directors is such that the chair of our board of directors and chief executive officer positions are separated. Mr. Lief, an independent director, has served as chair of our board of directors since May 2007. We believe having an independent chair of our board of directors with extensive executive experience in the life science industry has provided our board of directors with consistent, experienced and independent leadership that enhances the effectiveness of our board of directors as a whole. Our corporate governance guidelines do not require our board of directors to choose an independent chair or to separate the roles of chair and chief executive officer, but our board of directors believes this leadership structure is the appropriate structure for the Company at this time. Pursuant to our corporate governance guidelines, our board of directors may choose its chair in any manner that it deems to be in the best interests of the Company. If, in the future, the chair of our board of directors is not an independent director, our board of directors may designate an independent director to serve as a lead independent director.

Our board of directors is responsible for oversight of risks facing the Company, while our management is responsible for day-to-day management of risk. Our board of directors, as a whole, directly administers its risk oversight function. In addition, the risk oversight function is also administered through the standing committees of our board of directors, which oversee risks inherent in their respective areas of responsibility, reporting to our board of directors regularly and involving our board of directors as necessary. For example, the audit committee oversees our financial exposure and financial reporting related risks, and the compensation committee oversees risks related to our compensation programs and practices. Our board of directors as a whole directly oversees our strategic and business risk, including product development risk, through regular interactions with our management and, from time-to-time, input from

independent advisors. We believe our board's leadership structure supports its role in risk oversight, with our executive officers responsible for assessing and managing risks facing the Company on a day-to-day basis and the chair and other members of our board of directors providing oversight of such risk management.

Table of Contents

DIRECTOR NOMINATIONS

Criteria for Board Membership

In recommending candidates for appointment or election to our board of directors, the nominating and governance committee considers the appropriate balance of experience, skills and characteristics required of our board of directors, and seeks to insure that at least a majority of the directors are independent under the rules of the NYSE Amex, that members of the audit committee meet the financial literacy and sophistication requirements under the rules of the NYSE Amex and that at least one of member of the audit committee qualifies as an audit committee financial expert under the rules of the SEC. Nominees for director are selected on the basis of their depth and breadth of experience, wisdom, integrity, ability to make independent analytical inquiries, understanding of our company's business environment, willingness to devote adequate time to board duties, the interplay of the nominee's experience and skills with those of other directors and the extent to which the nominee would be a desirable addition to our board of directors and any of its committees. No director may serve on more than a total of three boards of directors of other public companies, and directors generally will not be nominated for re-election at any annual or special meeting held after their 75th birthday. Other than the foregoing, there are no stated minimum criteria for director nominees, although the nominating and governance committee may also consider such other factors as it may deem are in the best interests of the Company and our stockholders. The nominating and governance committee does not have a policy regarding board diversity, but it takes diversity of professional experience and perspective within the pharmaceutical and biotechnology industries into account in identifying and selecting director nominees.

Stockholder Recommendations

Other than under the Rights Agreement and our merger agreement with SynthRx, Inc., we have never received a proposal from a stockholder to nominate a director. The nominating and governance committee will consider qualified candidates for director suggested by stockholders by applying the criteria for board membership described above. Stockholders wishing to suggest a qualified director candidate for review and consideration by the nominating and governance committee must provide a written statement to our corporate secretary that includes the following information: a statement that the proposing stockholder is recommending a candidate for consideration by the nominating and governance committee; the name, age, business address and residence address of the proposed nominee; a statement of the proposed nominee's business experience and educational background; the proposed nominee's principal occupation or employment; the class and number of shares of our capital stock beneficially owned by the proposed nominee; a detailed description of all relationships, arrangements or understandings between the proposing stockholder and the proposed nominee and any other person or persons (naming such person or persons) pursuant to which such proposed nomination is being made by the stockholder; a detailed description of all relationships, arrangements or understandings between the proposed nominee and any service-provider, supplier or competitor of the Company; information regarding each of the criteria for board membership described above in sufficient detail to allow the nominating and governance committee to evaluate the proposed nominee; and a statement from the proposed nominee that he or she is willing to be considered and willing to serve as a director if nominated and elected. The proposing stockholder must also include the following information with respect to such stockholder: documentation supporting that the proposing stockholder is a stockholder of the Company; the proposing stockholder's name and address, as they appear on the Company's books; and the class and number of shares of our capital stock beneficially owned by the proposing stockholder. If a stockholder submits a director recommendation in compliance with the procedure described above, the nominating and governance committee will conduct an initial evaluation of the proposed nominee and, if it determines the proposed nominee may be a qualified candidate, the nominating and governance committee and one or more members of our management team will interview the proposed nominee to determine whether he or she might be suitable to be a director. If the nominating and governance committee

determines the proposed nominee would be a valuable addition to our board of directors, based on the criteria for board membership described above and our board of directors' specific needs at the time, it will recommend to our board of directors such person's nomination. In connection with its evaluation, the nominating and governance committee may request additional information from the proposed nominee and/or the proposing stockholder.

Table of Contents

Separately, our bylaws contain provisions that address the process by which a stockholder may nominate an individual to stand for election to our board of directors at our annual meeting of stockholders. Such nominations may be made only if the stockholder has given timely written notice to our corporate secretary containing the information required by our bylaws. To be timely, such notice must be received at our principal executive offices not earlier than the 120th day, nor later than the close of business on the 90th day, prior to the first anniversary of the date of the preceding year's annual meeting as first specified in our notice of meeting (without regard to any postponements or adjournments of such meeting after such notice was first sent), except that if no annual meeting was held in the previous year or the date of the annual meeting is more than 30 days earlier or later than such anniversary date, such notice must be received not earlier than the 120th day prior to the date of such annual meeting and not later than the close of business on the later of the 90th day prior to the date of such annual meeting or the 10th day following the date on which we first publicly announce the date of such meeting.

Process for Identifying and Evaluating Nominees

Each year before recommending to our board of directors a slate of nominees for director, the nominating and governance committee considers each incumbent director's performance on our board of directors and whether the incumbent director's nomination would be consistent with the criteria for board membership described above and other guidelines included in our corporate governance guidelines, including ensuring that the composition of our board of directors is such that it maintains an openness to new ideas and a willingness to critically re-examine the status quo. In the ordinary course, absent special circumstances or a material change in the criteria for board membership, the nominating and governance committee will recommend for nomination incumbent directors with skills and experience that are relevant to our business and who are willing to continue in service. If an incumbent director is not willing to stand for re-election, or if a vacancy on our board of directors occurs between annual stockholder meetings and our board of directors determines to fill such vacancy, the nominating and governance committee will identify the desired skills and experience of a new nominee based on the criteria for board membership described above and any specific needs of our board of directors at the time. The nominating and governance committee will then seek suggestions from other members of our board of directors and our management team as to individuals meeting such criteria. Potential nominees will be selected based on input from members of our board of directors, our management team and, if the nominating and governance committee deems appropriate, a third-party search firm. The nominating and governance committee will evaluate each potential nominee's qualifications and check relevant references. In addition, such individuals will be interviewed by at least one member of the nominating and governance committee. Following this process, the nominating and governance committee will determine whether to recommend to our board of directors that a potential nominee be presented as a nominee for election by the stockholders or be appointed to fill a vacancy on our board of directors, as the case may be. Historically, our board of directors nominates for election at our annual stockholder meetings the individuals recommended by the nominating and governance committee.

Director Arrangements

Under the terms of the Rights Agreement, we are required to cause our board of directors to nominate for election to our board of directors an individual, who we refer to as the Purchaser Designee, selected by the Purchasers who at the time own a majority of the Purchased Shares. Odysseas D. Kostas is the current Purchaser Designee. Purchasers, as defined in the Rights Agreement, refers to those entities, including entities affiliated with Carl C. Icahn, that purchased our common stock and warrants in a private transaction in July 2005. Purchased Shares, as defined in the Rights Agreement, refers to those shares of common stock outstanding and issuable upon exercise of warrants issued to the Purchasers in connection with the July 2005 transaction. The Purchasers' right to select a Purchaser Designee for nomination to our board of directors terminates upon the earlier of (i) July 27, 2012, (ii) the date that the Purchasers' aggregate holdings of Purchased Shares (either of record or beneficially) is, as a result of sales or other dispositions thereof, equal to less than 50% of the aggregate number of shares purchased by the Purchasers in connection with the July 2005 transaction, and (iii) upon a change of control of the Company. Under the terms of a Third Amendment to

Rights Agreement, dated August 26, 2009, the Rights Agreement was amended such that we agreed to set the authorized number of directors constituting our board of directors at six; provided, however, that in the event a director resigns from our board of directors and any resulting vacancy is not filled by a majority of the directors then in office, which majority shall include the Purchaser Designee, if there is

Table of Contents

then a Purchaser Designee, our board of directors may decrease the authorized number of directors to the number of directors then in office (including for this purpose the appointment of a director to fill any vacancy resulting from such resignation); provided, further, that, from time to time, our board of directors may increase the number of authorized directors provided that any vacancy created by such an increase is filled by a majority of our board of directors then in office, which majority shall include the Purchaser Designee, if there is then a Purchaser Designee. Currently, and in accordance with the Rights Agreement, as amended, the number of authorized directors constituting our board of directors is six.

Pursuant to our merger agreement with SynthRx, Inc., we were required to increase the size of our board of directors from five to six members and appoint an individual to our board of directors proposed by SynthRx and reasonably acceptable to us. We do not have any ongoing obligation to nominate an individual proposed by SynthRx.

COMMUNICATIONS WITH DIRECTORS

Stockholders who wish to communicate with our directors to report complaints or concerns related to accounting, internal accounting controls or auditing may do so using the audit committee's procedures for the receipt of such communications. These procedures allow submitting the complaint or concern telephonically as set forth in our Code of Business Conduct and Ethics, which is available on our corporate website at www.adventrx.com.

If any stockholder wishes to address questions regarding the business affairs of the Company directly to our board of directors, or any individual director, the stockholder must submit the inquiry in writing to: ADVENTRX Pharmaceuticals, Inc., Attn: Investor Relations, 12390 El Camino Real, Suite 150, San Diego, California 92130. Submitting stockholders should indicate they are a stockholder of the Company. Depending on the subject matter, investor relations will: forward the inquiry to the chair of our board of directors, who may forward the inquiry to a particular director if the inquiry is directed towards a particular director; forward the inquiry to the appropriate personnel within the Company (for instance, if it is primarily commercial in nature); attempt to handle the inquiry directly (for instance, if it is a request for information about the Company or a stock-related matter); or not forward the inquiry, if it relates to an improper or inappropriate topic or is otherwise irrelevant.

We encourage all of our directors to attend our annual meetings of stockholders. Four of our incumbent directors, Dr. Kostas, Mr. Lief, Dr. Pykett and Dr. Rowinsky, attended our 2010 annual meeting of stockholders.

Table of Contents**EXECUTIVE OFFICERS**

Our executive officers, their ages and positions held as of April 8, 2011, are as follows:

Name	Age	Position
Brian M. Culley	39	Chief Executive Officer
Patrick L. Keran	39	President and Chief Operating Officer
Brandi L. Roberts	37	Vice President, Finance

Biographical Information of Executive Officers

Brian M. Culley, M.A., M.B.A. Mr. Culley joined our company in December 2004 and currently serves as our chief executive officer, a position he has held since February 2010. He has served as our principal executive officer since February 2009. From January 2007 to February 2010, he served as our chief business officer and senior vice president. From February 2006 to January 2007, Mr. Culley served as our senior vice president, business development, and, from December 2004 to February 2006, he served as our vice president, business development. From 2002 until 2004, Mr. Culley managed all strategic collaborations and licensing agreements for iTherx, Inc. (formerly, Immusol, Inc.) in San Diego, where his most recent title was director of business development and marketing. From 1999 until 2000, he was a licensing and marketing associate at the University of California, San Diego, department of technology transfer & intellectual property services and from 1996 to 1999, he was a research associate for Neurocrine Biosciences, Inc., where he performed drug discovery research. Mr. Culley has over 18 years of experience in the life science industry, including deal structure and negotiation, licensing, due diligence, market and competitive research, and venture funding. He received a B.S. in biology from Boston College, a masters in biochemistry from the University of California, Santa Barbara and an M.B.A. from The Johnson School of Business at Cornell University with an emphasis on private equity and entrepreneurship.

Patrick L. Keran, J.D. Mr. Keran joined our company in August 2006 and currently serves as our president and chief operating officer, a position he has held since February 2010. He has also served as our principal financial officer since July 2009 and as our secretary since September 2006. From August 2006 to February 2010, Mr. Keran served as our general counsel and, from January 2007 to February 2010, he served as our vice president, legal. From April 2004 to August 2006, Mr. Keran was associate general counsel at Isis Pharmaceuticals, Inc., a publicly held drug discovery and development company. From February 2003 to April 2004, Mr. Keran practiced corporate law at the law firm of Heller Ehrman LLP, specializing in public and private financings, licensing arrangements, mergers and acquisitions and corporate governance matters. From September 1999 to February 2003, Mr. Keran practiced law at the law firm of Brobeck Phleger & Harrison LLP where he had a similar corporate practice. Mr. Keran is licensed to practice law in the State of California. Mr. Keran received a B.A. from the University of California at San Diego and a J.D. from the University of California at Berkeley, Boalt Hall School of Law.

Brandi L. Roberts, M.B.A. Ms. Roberts joined our company in March 2011 as our vice president, finance and principal accounting officer. Ms. Roberts previously served as our vice president, finance from June 2008 to January 2009. Subsequently, from January 2009 to March 2011, she served as vice president, accounting and corporate controller of Alphatec Spine, Inc., the wholly-owned operating subsidiary of Alphatec Holdings, Inc., a medical technology company listed on the NASDAQ Global Select Market. From June 2007 to June 2008, Ms. Roberts served as executive director, corporate controller of Artes Medical, Inc., a publicly traded medical technology company, and from September 2005 to June 2007, Ms. Roberts served as director, finance of Stratagene Corporation, a publicly

traded life science company acquired by Agilent Technologies, Inc. in June 2007. She is a certified public accountant (inactive) with the State of California. Ms. Roberts received a B.S. in Business Administration from the University of Arizona and an M.B.A. from the University of San Diego.

Table of Contents**SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth information regarding beneficial ownership of our common stock as of April 8, 2011 (the Evaluation Date), or an earlier date for information based on filings with the SEC, by (a) each person known to us to beneficially own more than 5% of the outstanding shares of our common stock, (b) each director and nominee for director, (c) each of the named executive officers listed in the compensation tables included in this proxy statement and (d) all of our current directors and executive officers as a group. The information in this table is based solely on statements in filings with the SEC or other reliable information. Percent of beneficial ownership is based on 26,465,709 shares of our common stock outstanding as of the Evaluation Date. The information in this table reflects the proportionate adjustments made to warrants and options we issued prior to the 1-for-25 reverse split of our outstanding common stock effected on April 23, 2010.

Name and Address of Beneficial Owner(1)	Shares Beneficially Owned(2)	Percent of Outstanding
Principal Stockholders:		
RA Capital Management, LLC(3) 20 Park Plaza, Suite 905 Boston, MA 02116	2,365,000	8.9%
Tang Capital Partners, LP(4) 4401 Eastgate Mall San Diego, CA 92121	2,229,085	8.4%
Directors and Named Executive Officers:		
Michael M. Goldberg(5)	18,483	*
Odysseas D. Kostas(6)	6,776	*
Jack Lief(7)	15,443	*
Mark J. Pykett(8)	17,763	*
Eric K. Rowinsky(9)	13,443	*
Lewis J. Shuster		*
Brian M. Culley(10)	73,000	*
Patrick L. Keran(11)	60,800	*
All directors and executive officers as a group (9 persons)(12)	205,708	*

* Less than 1%

- (1) Unless otherwise indicated, the address of each of the listed persons is c/o ADVENTRX Pharmaceuticals, Inc., 12390 El Camino Real, Suite 150, San Diego, California 92130.
- (2) Beneficial ownership of shares is determined in accordance with the rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power, or of which a person has the right to acquire ownership within 60 days of the Evaluation Date. Except as otherwise noted, (a) each person or entity has sole voting and investment power with respect to the shares shown and (b) none of the shares shown as beneficially owned on this table are subject to pledge. In calculating the percentage ownership of each person identified in the table, shares underlying options, warrants or other rights to acquire shares of our common stock

held by that person that are either currently exercisable or exercisable within 60 days of the Evaluation Date are deemed outstanding. These shares, however, are not deemed outstanding for the purposes of computing the percentage ownership of any other individual or entity. Percentage ownership for each person is based on the number of shares of our common stock outstanding as of the Evaluation Date, together with the applicable number of shares of common stock subject to options, warrants or other rights to acquire shares of our common stock currently exercisable or exercisable within 60 days of the Evaluation Date for that person or group of persons.

- (3) RA Capital Healthcare Fund, L.P. beneficially owns and has sole voting and dispositive power with respect to 1,182,500 of the shares. RA Capital Management, LLC, as the investment adviser and sole general partner of RA Capital Healthcare Fund, L.P. and investment adviser to an account owned by a separate investment

Table of Contents

vehicle, and Peter Kolchinsky, as the manager of RA Capital Management, LLC, each beneficially owns and has sole voting and dispositive power with respect to all of the 2,365,000 shares. This information was obtained from the Schedule 13G jointly filed with the SEC on January 20, 2011 by RA Capital Management, LLC, RA Capital Healthcare Fund, L.P. and Mr. Kolchinsky (the RA Capital Reporting Persons). In addition, the RA Capital Reporting Persons beneficially own warrants issued on January 11, 2011 to purchase up to 1,182,500 additional shares of common stock; however, the terms of the warrants restrict the exercise of the warrants such that, upon exercise, the number of shares of our common stock then beneficially owned by the holder and its affiliates may not exceed 4.99% of our outstanding common stock unless the holder gives at least 61 days prior notice to us that it wishes to increase such beneficial ownership limitation to 9.99%. As of the Evaluation Date, we have not received any such notice.

- (4) Tang Capital Partners, LP beneficially owns and has shared voting and dispositive power with respect to all 2,229,085 shares. Tang Capital Management, LLC, the general partner of Tang Capital Partners, LP, and Kevin C. Tang, the manager of Tang Capital Management, LLC, each has shared voting and dispositive power with respect to all 2,229,085 shares and may be deemed to beneficially own such shares. This information was obtained from the Schedule 13G jointly filed with the SEC on January 18, 2011 by Tang Capital Partners, LP, Tang Capital Management, LLC and Mr. Tang. In addition, Tang Capital Partners, LP holds warrants issued on January 11, 2011 to purchase up to 1,182,500 additional shares of common stock; however, the terms of the warrants restrict the exercise of the warrants such that, upon exercise, the number of shares of common stock then beneficially owned by the holder and its affiliates may not exceed 4.99% of our outstanding common stock unless the holder gives at least 61 days prior notice to us that it wishes to increase such beneficial ownership limitation to 9.99%. As of the Evaluation Date, we have not received any such notice.
- (5) Consists of (a) 17,443 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date and (b) 1,040 shares of common stock held directly by Dr. Goldberg.
- (6) Consists of 6,776 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date.
- (7) Consists of 15,443 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date.
- (8) Consists of (a) 17,443 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date and (b) 320 shares of common stock held by Dr. Pykett and his spouse, as joint tenants.
- (9) Consists of 13,443 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date.
- (10) Consists of (a) 68,000 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date and (b) 5,000 shares of common stock held directly by Mr. Culley.
- (11) Consists of 60,800 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date.
- (12) Includes 199,348 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date.

Table of Contents

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We have incorporated into our written review and approval policies certain procedures designed to ensure that any proposed transaction in which we would be a participant and in which any of our directors, executive officers, holders of more than 5% of our common stock, or any member of the immediate family of any of the foregoing, would have a direct or indirect material interest is reviewed by individuals within the Company familiar with the requirements of Item 404 of Regulation S-K promulgated by the SEC. If any such proposed transaction would require disclosure pursuant to Item 404(a) of Regulation S-K, it will be presented to the audit committee for review and, if appropriate, approval.

Other than the following transactions and the transactions described under Executive Officer Compensation and Director Compensation below, since January 1, 2009, there has not been, nor currently are there proposed, any transactions or series of similar transactions in which the Company was or is to be a participant and the amount involved exceeds or will exceed the lesser of \$120,000 or 1% of the average of our total assets as of December 31, 2009 and 2010, which is approximately \$187,570, and in which any of our directors, executive officers, holders of more than 5% of our common stock or any member of the immediate family of any of the foregoing persons, had or will have a direct or indirect material interest.

Indemnification of Officers and Directors

Our amended and restated certificate of incorporation and our bylaws provide that we will indemnify each of our directors and officers to the fullest extent permitted by the Delaware General Corporation Law. Further, we have entered into indemnification agreements with each of our directors and officers, and we have purchased a policy of directors and officers liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our officers and directors, and persons who own more than 10% of our common stock, to file reports of securities ownership and changes in such ownership with the SEC. Our officers and directors and persons who own more than 10% of our common stock also are required by rules promulgated by the SEC to furnish us with copies of all Section 16(a) forms they file. Based solely upon a review of the copies of such forms furnished to us and written representations from our directors and executive officers, we believe that all Section 16(a) filing requirements were timely met during 2010.

Table of Contents**EXECUTIVE OFFICER COMPENSATION****Summary Compensation Table**

The following table sets forth information concerning compensation earned for services rendered to us during the years ended December 31, 2010 and December 31, 2009 by (i) each individual serving as principal executive officer during 2010, (ii) the two most highly compensated executive officers, other than the individuals serving as our principal executive officer, who were serving as executive officers as of December 31, 2010, and (iii) the individuals who would have qualified under the foregoing clause (ii) but for the fact that such individuals were not serving as executive officers as of December 31, 2010. For 2010, we only had two executive officers, both of whom are included in the following table. Collectively, the executive officers named in the following table are referred to as the named executive officers or NEOs. All share and per share information included below reflects retrospective application of the 1-for-25 reverse split of our outstanding common stock effected on April 23, 2010.

Name and Principal Position	Year	Salary	Bonus	Summary Compensation Table				Total
				Stock Awards	Option Awards (1)	Non-Equity Incentive Compensation (2)	Deferred Compensation (3)	
Brian M. Culley	2010	\$ 315,000			\$ 501,920	\$ 112,500	\$ 19,527(3)	\$ 948,947
Chief Executive Officer	2009	\$ 316,817	\$ 0(4)	\$ 215,900	\$ 225,000		\$ 962(5)	\$ 758,679
Patrick L. Keran	2010	\$ 289,000			\$ 501,920	\$ 112,500	\$ 19,536(3)	\$ 922,956
President and Chief Operating Officer	2009	\$ 290,781	\$ 0(4)	\$ 215,900	\$ 225,000		\$ 6,154(6)	\$ 737,835

- (1) The amounts in this column represent the aggregate grant date fair value of option awards granted to the named executive officers in 2010 and 2009, respectively, calculated in accordance with the provisions of Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718, Stock Compensation, except that any estimate of forfeitures was disregarded. For a description of the assumptions used to calculate these amounts, see Note 7 to our audited consolidated financial statements included in our annual report on Form 10-K for the year ended December 31, 2010. The actual value of any option award to an officer, if any, will depend on the excess of our stock price over the exercise price on the date the option is exercised. The actual value realized by the officer upon exercise of the options may be higher or lower than the value shown in this column.
- (2) We paid the amounts set forth in this column pursuant to the terms of our 2010 incentive plan and the 2009 mid-year incentive plan, respectively. See Narrative to Summary Compensation Table Short-term Non-equity Incentive Plan and Employment Retention and Severance Arrangements below for a description of the material terms of our 2010 incentive plan and the 2009 mid-year incentive plan.
- (3) This amount consists of (a) matching contributions made pursuant to our tax-qualified 401(k) plan, (b) contributions to health savings accounts in excess of the amount not subject to federal tax and (c) premiums paid for life insurance policies for the benefit of our executives.

- (4) This amount represents the grant date fair value of a restricted stock unit award granted to the named executive officer in January 2009, calculated in accordance with the provisions of FASB ASC Topic 718. Mr. Culley received 48,000 restricted stock units and Mr. Keran received 34,000 restricted stock units. Vesting and settlement of the restricted stock unit awards were conditioned upon our consummation of a strategic transaction. The grant date fair value of zero for each of these awards is based on our assessment that achievement of the vesting condition was not probable (assessed as of the grant date). Assuming 100% probability of meeting the vesting condition, the value of the restricted stock unit awards as of the grant date would have been \$108,000 for Mr. Culley and \$76,500 for Mr. Keran. The restricted stock unit awards granted to Mr. Culley and Mr. Keran were forfeited by them and cancelled in July 2009. As a result of these cancellations, the officers have not and will not receive any compensation or pecuniary value from these restricted stock unit awards.
- (5) This amount represents the premium paid for a life insurance policy for the benefit of Mr. Culley.
- (6) This amount consists of (a) matching contributions made pursuant to our tax-qualified 401(k) plan and (b) the premium paid for a life insurance policy for the benefit of Mr. Keran.

Table of Contents

Narrative Disclosure to Summary Compensation Table

Base Salaries

In January 2010, the compensation committee of our board of directors approved 2010 annual base salaries for the NEOs, which were the same relative to 2009. In 2010 and 2009, Mr. Culley's annual base salary was \$315,000 and Mr. Keran's annual base salary was \$289,000.

2010 Stock Option Awards

In January 2010, the compensation committee approved stock option awards to each of the NEOs to purchase up to 64,000 shares of our common stock. The grant of the option awards was subject to and contingent upon our receipt of a waiver under the Rights Agreement, which, among other things, prohibits us from granting certain securities without complying with the provisions of the Rights Agreement. On February 2, 2010, we received the necessary waiver. Accordingly, on February 2, 2010, each of the NEOs was granted the option previously approved by the compensation committee. The per share exercise price of these options is \$8.00, which was the closing price of our common stock on February 2, 2010. The stock options were granted under our 2008 Omnibus Incentive Plan and have a term of 10 years. Pursuant to the 2008 Omnibus Incentive Plan, the exercise price per share of the options cannot be lowered without prior approval of our stockholders, except in the event of a merger, reorganization, consolidation, recapitalization, dividend or distribution (whether in cash, shares or other property, other than a regular cash dividend), stock split, reverse stock split, spin-off or similar transaction or other change in corporate structure affecting our common stock or the value thereof, in each case as the compensation committee may deem equitable or appropriate.

The stock options become exercisable, subject to the NEOs' respective continuous service to us, as to 25% of the shares subject to the option on each of January 1, 2011, January 1, 2012, January 1, 2013 and January 1, 2015. However, in the event the NEO ceases to provide services to us as an employee by reason of an involuntary termination, the option shall, immediately prior to such involuntary termination, vest and become exercisable with respect to 25% of the total number of shares subject to the option, or 16,000 shares, and the exercisability of the then-vested portion of the stock option (after taking into account the foregoing acceleration) shall be extended such that the stock option shall be exercisable for a period of 12 months from the date of such involuntary termination but not later than the 10-year term expiration. In addition, the vesting and/or exercisability of each option will accelerate or be extended under certain circumstances, including, (i) in the event of a change in control (as defined in our 2008 Omnibus Incentive Plan), acceleration of vesting with respect to 50% of the then unvested shares on the day prior to the date of the change in control and, subject to the respective officer's continuous service, with respect to the remaining 50% of the then unvested shares on the one year anniversary of the date of the change in control, (ii) subject to the preceding clause (i), in the event of a change of control, to the extent the successor company (or a subsidiary or parent thereof) does not assume or substitute for the option, acceleration in full on the day prior to the date of the change in control if the officer is then providing services or was the subject of an involuntary termination in connection with, related to or in contemplation of the change in control and exercisability for a period of 24 months from the date of such involuntary termination, and (iii) subject to the preceding clause (i), in the event of a change of control, to the extent the successor company (or a subsidiary or parent thereof) assumes or substitutes for the option, and in the event of an involuntary termination of the officer within 12 months following the date of the change in control, acceleration in full of vesting and exercisability for a period of 24 months from the date of such involuntary termination.

For purposes of the 2010 stock option awards, an involuntary termination means (i) without the officer's express written consent, an action by our board of directors or external events causing or immediately portending a material

reduction or alteration of the officer's duties, position or responsibilities relative to the officer's duties, position or responsibilities in effect immediately prior to such reduction or alteration, or the removal of the officer from such position, duties or responsibilities; provided, however, that an involuntary termination shall not be deemed to occur (a) with respect to Mr. Culley, if Mr. Culley remains the head of and most senior individual within our company's (or our successor's) business development function and (B) with respect to Mr. Keran, if Mr. Keran remains the head of and most senior individual within our company's (or our successor's) legal function; (ii) without the officer's express written consent, a material reduction by us of the officer's base salary as in effect immediately

Table of Contents

prior to such reduction; (iii) without the officer's express written consent, the relocation of the officer's principal place of employment with us by more than 50 miles; or (iv) any termination of the officer's employment by us without cause (as defined below). For purposes of the 2010 stock option awards, cause means (i) any act of personal dishonesty taken by the officer in connection with his responsibilities as an employee which is intended to result in substantial personal enrichment of the officer; (ii) the officer's conviction of a felony that our board of directors reasonably believes has had or will have a material detrimental effect on our reputation or business; (iii) a willful act by the officer that constitutes misconduct and is materially injurious to us, or (iv) continued willful violations by the officer of the officer obligations to us after there has been delivered to the officer a written demand for performance from us that describes the basis for our belief that the officer has not substantially performed his duties.

2010 Non-Equity Incentive Plan Awards

In January 2010, the compensation committee adopted an incentive plan for 2010 applicable to the NEOs, who at the time were our only employees. Pursuant to the 2010 incentive plan, the NEOs were eligible for awards based entirely upon the Company's achievement of corporate performance objectives adopted by the compensation committee and in effect at the end of 2010. Awards under the 2010 incentive plan generally were to be paid in cash; however, the compensation committee had discretion to determine the composition of each award. The target award amount for each NEO was \$150,000. The actual payout amount of each award, however, could be increased or decreased, in the compensation committee's sole discretion, by multiplying the target amount by a corporate performance multiplier, which was to be determined by the compensation committee in the first quarter of 2011. Award multipliers could range from zero to 1.5 and would be the same for both NEOs.

The corporate performance goals under the 2010 incentive plan were set by the compensation committee at the time of the plan's adoption in January 2010 based on recommendations from the NEOs and the compensation committee's assessment, at that time, of the near-term corporate objectives that would enhance stockholder value. Pursuant to the terms of the 2010 incentive plan, however, if a corporate performance objective became irrelevant or undesirable or if a strategic change or other event affected the objective, the compensation committee, after considering the recommendations of the NEOs, had discretion to adjust the weighting of all objectives, substitute a new objective, eliminate the affected objective, take no action or effect any combination of the foregoing. In addition, subject to contractual obligations, the compensation committee had absolute discretion to abolish the 2010 incentive plan at any time or to alter any terms and conditions under which awards would be paid under the plan, with or without cause and with or without prior notice. The corporate performance objectives set by the compensation committee in January 2010 consisted of goals involving favorable response(s) from the U.S. Food and Drug Administration, or FDA, regarding one or more of our product candidates, favorable progress in the development and/or commercialization of one or more of our products and the maintenance of specified levels of capital at December 31, 2010. During 2010, following the adoption of corporate performance goals in January 2010, there was a shift in certain of our corporate priorities, including an increased focus on expanding our product pipeline and a decreased focus on commercialization activities following the refusal-to-file letter we received from the FDA in February 2010 regarding the first new drug application we submitted for Exelbine. However, while the terms of the 2010 incentive plan provide for revising corporate performance goals as described above, the compensation committee did not formally revise the goals adopted in January 2010 and, accordingly, we did not achieve all of the goals established by the compensation committee in January 2010. In determining whether to grant awards to the NEOs under the 2010 incentive plan in the first quarter of 2011, the compensation committee considered corporate priorities throughout 2010 and conditions that affected our ability to achieve the objectives adopted in January 2010, including potential changes to regulatory policy that may not have been formalized or publicly disseminated, which may have been a factor underlying the FDA's refusal to file the first new drug application we submitted for Exelbine. The compensation committee also considered our capital levels in January 2011 and our successful capital-raising activities throughout 2010 and in January 2011. After taking such conditions into account, pursuant to the discretion provided to it under the 2010 incentive plan, the compensation committee determined to award \$112,500 to each of the NEOs under the 2010 incentive plan, which

was approximately 75% of the target award amount.

Table of Contents***Employment Retention and Severance Arrangements***

Each of NEOs' employment with us is at-will and they or we may terminate their employment with us at any time with or without prior notice. In July 2009, the compensation committee adopted a retention and severance plan applicable to the NEOs. The compensation committee determined that this plan was necessary to incentivize and retain the NEOs, who at the time were our only employees, and reinforce their dedication to us during a period when they would otherwise likely seek alternative employment. As a part of adopting this plan, we terminated the retention and incentive agreements that we had entered into with each of the NEOs in January 2009 and the awards of restricted stock unit awards that we granted to the NEOs in January 2009. We did not pay any amounts to either Mr. Culley or Mr. Keran pursuant to the January 2009 retention and incentive agreements before those agreements were terminated.

Under the retention and severance plan we adopted in July 2009, if the employment of Mr. Culley or Mr. Keran, as applicable, terminates at any time as a result of an involuntary termination, and the applicable NEO, delivers and does not revoke a general release of claims, which will also confirm any post-termination obligations and/or restrictions applicable to him, he will be entitled to (i) an amount equal to 12 months of his then-current base salary, less applicable withholdings, and (ii) an amount equal to the estimated cost of continuing his healthcare coverage and the coverage of his dependents who are covered at the time of the involuntary termination under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, for a period equal to 12 months. These severance benefits will be paid in a lump-sum on the date the general release of claims becomes effective. As of December 31, 2010, our aggregate contractual contingent obligation under the retention and severance plan, including applicable payroll and employer taxes, was \$348,132 for Mr. Culley and \$321,755 for Mr. Keran.

For purposes of the retention and severance plan, the definition of "involuntary termination" is the same as described above with respect to the 2010 stock options awards, except that an involuntary termination shall also be deemed to occur upon a material breach of the retention and severance plan, including, but not limited to, our failure to obtain the assumption of the retention and severance plan by any successors as contemplated in the retention and severance plan. The definition of "cause" is also the same as described above with respect to the 2010 stock options awards.

Other Employment Benefits and Arrangements

Vacation Benefits. Mr. Culley accrues 26 vacation days per year and Mr. Keran accrues 24 vacation days per year, subject to adjustment based on the number of years of the officer's employment with us. As of December 31, 2010, Mr. Culley had accrued 52 vacation days and Mr. Keran had accrued 48 vacation days, which is the maximum amount they can accrue under our vacation benefits policy. Pursuant to our policy, employees may not accrue vacation days in excess of twice their annual vacation accrual rate. Accordingly, until Mr. Culley or Mr. Keran uses his accrued vacation days, he will not accrue additional vacation days unless his annual accrual rate increases. If the NEOs' employment with us had terminated as of December 31, 2010, our aggregate vacation benefits payment obligation, including applicable payroll and employer taxes, would have been approximately \$63,909 for Mr. Culley and approximately \$54,127 for Mr. Keran.

Other Agreements. It is our policy that, at the beginning of employment, all employees sign our standard confidential information, non-solicitation and invention assignment agreement for employees. Under the current version of this agreement, employees agree that, during the period of the employee's service to us and for one year thereafter, the employee will not (a) solicit any employee or consultant of ours to leave the employ of or terminate any relationship with us or (b) solicit the business of any client or customer of ours using our confidential information. Each of Mr. Culley and Mr. Keran has signed one of these agreements.

Table of Contents**Outstanding Equity Awards at Fiscal Year-End 2010**

The following table sets forth information regarding outstanding equity awards held by our named executive officers at the end of fiscal 2010. All share and per share information included in this table reflects retrospective application of the 1-for-25 reverse split of our outstanding common stock effected on April 23, 2010.

Outstanding Equity Awards at Fiscal Year-End for Fiscal Year 2010

Name	Option Awards				Stock Awards				
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#)	Equity Incentive Plan Awards: Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Number of Shares or Units of Stock That Have Not Vested (\$)	Number of Shares or Units of Stock That Have Not Vested (#)	Number of Shares or Units of Stock That Have Not Vested (\$)
Brian M. Culley	4,000			\$ 57.50	7/13/2015				
	3,200			\$ 118.75	1/30/2016				
	5,873(1)	126(1)		\$ 68.75	1/11/2017				
	3,200(2)	4,800(2)		\$ 13.50	3/30/2018				
	17,000(3)	50,999(3)		\$ 3.25	7/20/2019				
			\$ 8.00	2/02/2020					
Patrick L. Keran	4,000			\$ 74.75	8/17/2016				
	1,957(1)	42(1)		\$ 68.75	1/11/2017				
	3,200(2)	4,800(2)		\$ 13.50	3/30/2018				
	17,000(3)	50,999(3)		\$ 3.25	7/20/2019				
		63,999(4)		\$ 8.00	2/02/2020				

(1) Subject to accelerated vesting in the event of a change in control or an involuntary termination within 24 months of a change in control, as described below under Acceleration of Vesting of Stock Options Granted Under 2005

Equity Incentive Plan, this option vested and became exercisable with respect to 1/4 of the total underlying shares subject to the option on January 1, 2008 and vests and becomes exercisable with respect to 1/48 of the total underlying shares at the end of each successive month thereafter.

- (2) Subject to accelerated vesting in the event of a change in control or an involuntary termination within 24 months of a change in control, as described below under Acceleration of Vesting of Stock Options Granted Under 2005 Equity Incentive Plan, this option vested and became exercisable with respect to 1/5 of the total underlying shares on each of January 1, 2009 and January 1, 2010 and vests and becomes exercisable with respect to 1/5 of the total underlying shares on each of January 1, 2011, January 1, 2012 and January 1, 2013.
- (3) Subject to accelerated vesting in the event of a change in control or an involuntary termination, as below under Acceleration of Vesting of 2009 Stock Option Awards, this option vested and became exercisable with respect to 1/4 of the total underlying shares on January 1, 2010, and vests and becomes exercisable with respect to 1/4 of the total underlying shares on each of January 1, 2011, January 1, 2012 and January 1, 2013.
- (4) Subject to accelerated vesting in the event of a change in control or an involuntary termination, as described above under Narrative Disclosure to Summary Compensation Table 2010 Stock Option Awards, this option vests and becomes exercisable with respect to 1/4 of the total underlying shares on each of January 1, 2011, January 1, 2012, January 1, 2013 and January 1, 2014.

Acceleration of Vesting of 2009 Stock Option Awards

The stock option agreements governing the options granted under our 2008 Omnibus Incentive Plan to our NEOs in 2009 provide that the vesting and exercisability of each option will accelerate under certain circumstances, including:

- (i) in the event of an involuntary termination of the NEO, the option will vest and become exercisable

Table of Contents

immediately prior to such involuntary termination with respect to 25% of the total number of shares subject to the option, or 17,000 shares, (ii) in the event of a change in control (as defined in our 2008 Omnibus Incentive Plan), the option will vest and become exercisable with respect to 50% of the then unvested shares on the day prior to the date of the change in control and, subject to the NEO's continuous service, with respect to the remaining 50% of the then unvested shares on the one year anniversary of the date of the change in control, (iii) subject to the preceding clause (ii), in the event of a change of control, to the extent the successor company (or a subsidiary or parent thereof) does not assume or substitute for the option, the option will vest and become exercisable with respect to 100% of the then unvested shares on the day prior to the date of the change in control if the NEO is then providing services or was the subject of an involuntary termination in connection with, related to or in contemplation of the change in control and will remain exercisable for a period of 24 months from the date of such involuntary termination, and (iv) subject to the preceding clause (ii), in the event of a change in control, to the extent the successor company (or a subsidiary or parent thereof) assumes or substitutes for the option, and in the event of an involuntary termination of the NEO within 12 months following the date of the change in control, the option will vest and become exercisable with respect to 100% of the then unvested shares on the day prior to the date of the change in control and will remain exercisable for a period of 24 months from the date of such involuntary termination.

Although the terms of the stock options granted to our NEOs in 2009 provide for acceleration of vesting in certain circumstances as described above, our NEOs would not have then realized any intrinsic value from these options as a result of the acceleration provisions if any of the acceleration scenarios had occurred on December 31, 2010 because none of these options were in-the-money on December 31, 2010, meaning none of them had an exercise price per share less than the market value per share of our common stock. The market value of our common stock is based on the closing market price of our common stock, which was \$2.61 per share on December 31, 2010.

Acceleration of Vesting of Outstanding Stock Options Granted Under 2005 Equity Incentive Plan

All of the stock options held by our named executive officers that were granted before July 2009 were granted under our 2005 Equity Incentive Plan. The stock option agreements governing the options granted to our NEOs before August 2006 provide that the options will accelerate in full in the event of an acquisition constituting a change of control (as such terms are defined in the stock option agreement) if the option holder remains employed by us as of the closing date of such acquisition and the option is not assumed or replaced by the successor or acquiring entity or the entity in control of such successor or acquiring entity. Otherwise, the option will not accelerate in the event of such an acquisition. The stock option agreements governing the options granted to our NEOs in and after August 2006 additionally provide that, if following a change of control in which an option is assumed as described above, the option holder is subject to an involuntary termination within 24 months after the closing date of such change in control, the vesting of the assumed option will be accelerated such that the option will vest as of the effective date of such involuntary termination with respect to all shares that would have vested during the period from the date of the option holder's involuntary termination until the date that is 24 months after the closing date of such change in control if such option holder had not been involuntarily terminated. For purposes of these stock option agreements, an involuntary termination is a termination of employment that occurs by reason of dismissal for any reason other than misconduct or of voluntary resignation following: (i) a change in position that materially reduces the level of the employee's responsibility, (ii) a material reduction in the employee's base salary, or (iii) relocation by more than 50 miles; provided that (ii) and (iii) will apply only if the employee has not consented to the change or relocation.

Misconduct means the commission of any act of fraud, embezzlement or dishonesty by the employee, any unauthorized use or disclosure by the employee of confidential information or trade secrets of our company (or any parent or subsidiary), or any other intentional misconduct by the employee adversely affecting our business affairs (or those of any parent or subsidiary) in a material manner. All of the stock option agreements governing the options granted to our NEOs in January 2007 contain this double trigger acceleration provision.

Although the terms of the stock options granted to our NEOs under our 2005 Equity Incentive Plan provide for acceleration of vesting in certain circumstances as described above, our NEOs would not have then realized any intrinsic value from these options as a result of the acceleration provisions if any of the acceleration scenarios had occurred on December 31, 2010 because none of these options were in-the-money on December 31, 2010, meaning none of them had an exercise price per share less than the market value per share of our common stock. The

Table of Contents

market value of our common stock is based on the closing market price of our common stock, which was \$2.61 per share on December 31, 2010.

Tax-Qualified Defined Contribution Plan

We have a defined contribution savings plan pursuant to Section 401(k) of the IRC. The plan is for the benefit of all employees and permits voluntary contributions by qualifying employees of up to 100% of eligible compensation, subject to Internal Revenue Service-imposed maximum limits. From January 1, 2009 until May 16, 2009, the terms of the plan required us to make matching contributions equal to 100% of employee contributions up to 6% of eligible compensation, limited by the IRS-imposed maximum. In April 2009, we amended the plan such that we were not required to make matching contributions on any employee contributions made by a highly compensated employee, which included our NEOs, from May 16, 2009 through December 31, 2009. In November 2009, we amended the plan to reinstate the 6% matching contribution for all employees effective for the plan year beginning January 1, 2010. With respect to the NEOs, we incurred total expenses of approximately \$47,250 and \$29,661 in employer matching contributions in 2010 and 2009, respectively.

DIRECTOR COMPENSATION

The following table shows compensation information for the individuals who served as our non-employee directors during the year ended December 31, 2010. Directors who are also our employees do not receive any additional compensation for their services as directors. Currently, all of our directors are non-employee directors. All share and per share information included below reflects retrospective application of the 1-for-25 reverse split of our outstanding common stock effected on April 23, 2010.

Director Compensation for Fiscal Year 2010

Name	Nonqualified					Total
	Fees Earned or Paid in Cash	Stock Awards	Option Awards (1)	Non-Equity Deferred Incentive Plan Compensation	Other Earnings Compensation	
Michael M. Goldberg	\$ 46,500		\$ 69,156			\$ 115,656
Odysseas Kostas(3)	\$ 35,222		\$ 48,193			\$ 83,415
Jack Lief	\$ 69,500		\$ 69,156			\$ 138,656
Mark J. Pykett	\$ 44,500		\$ 69,156			\$ 113,656
Eric K. Rowinsky	\$ 41,729		\$ 69,156		\$ 29,488(4)	\$ 140,373

(1) The amounts in this column represent the aggregate grant date fair value of option awards granted to the directors in 2010, calculated in accordance with the provisions of FASB ASC Topic 718, Stock Compensation, except that any estimate of forfeitures was disregarded. For a description of the assumptions used to calculate these amounts, see Note 7 to our audited consolidated financial statements included in our annual report on Form 10-K for the year ended December 31, 2010. The actual value of any option award to a director, if any, will depend on the excess of our stock price over the exercise price on the date the option is exercised. The actual value realized by the director upon exercise of the options may be higher or lower than the value shown in this column.

(2) As of December 31, 2010, our non-employee directors had options outstanding to purchase the following number of shares of our common stock:

Name	Shares Underlying Outstanding Options
Michael M. Goldberg	20,000
Odysseas Kostas(3)	9,333
Jack Lief	18,000
Mark J. Pykett	20,000
Eric K. Rowinsky	16,000

Table of Contents

- (3) Dr. Kostas was appointed to our board of directors in February 2010.
- (4) This amount represents fees earned for consulting services provided to us under a consulting agreement with Dr. Rowinsky. See Consulting Services Agreement with Eric K. Rowinsky below for a description of our consulting services agreement with Dr. Rowinsky.

Overview of Non-Employee Director Compensation***Retainer***

During 2010, pursuant to the director compensation policy adopted by our board of directors in January 2010, we paid our non-employee directors quarterly cash retainers and meeting attendance fees. The amounts of the quarterly retainers vary depending on the non-employee director's role on our board of directors and its committees, as set forth in the table below. A non-employee director whose service begins or ends during a quarter receives a pro-rated portion of the applicable quarterly retainer.

2010 Quarterly Retainer

	Chairperson	Member
Board of Directors	\$ 10,000(1)	\$ 5,000
Audit Committee	\$ 1,875	\$
Compensation Committee	\$ 875	\$
Nominating and Governance Committee	\$ 875	\$
Special Committee(2)	\$ 875	\$
Pricing Committee(3)	\$ 875	\$

- (1) If, in the future, our board of directors appoints a lead independent director, such director's quarterly retainer would be \$10,000 per quarter.
- (2) The special committee was established by our board of directors in June 2010.
- (3) The pricing committee was established by our board of directors in May 2009 and re-authorized by the board of directors in December 2009 and March 2010.

Meeting Fees

In addition to the quarterly retainers, in 2010, pursuant to the 2010 director compensation policy, we paid our non-employee directors \$1,000 for each meeting of our board of directors and each meeting of a board committee of which such director is a member attended by such director (whether such attendance is in person or by telephone, videoconference or other comparable communication device).

In addition to the quarterly retainer and meeting fees, we reimburse our directors for travel and other reasonable out-of-pocket expenses related to attendance at our board of directors and committee meetings.

In March 2011, our board of directors adopted a new director compensation policy applicable to all non-employee directors effective as of January 1, 2011. The quarterly retainers and meeting fees under the 2011 policy are the same as under the 2010 policy. However, as described below, the equity compensation element of non-employee director compensation is different under the 2011 policy.

Equity Compensation

2010 Equity Compensation. We also compensate our non-employee directors through stock option awards. In 2009, however, no stock option or other equity awards were granted to our directors. During 2010, pursuant to the 2010 director compensation policy, each non-employee director who was a non-employee director on January 25, 2010 was eligible to receive (i) a re-inducement option to purchase 4,000 shares of our common stock and (ii) a make-up option to purchase 4,000 shares of our common stock. The re-inducement and make-up options were

Table of Contents

approved by our board of directors on January 25, 2010, but the grants were subject to our receipt of a waiver under the Rights Agreement. Upon our receipt of such waiver on February 2, 2010, the re-inducement and make-up options were granted to each of Mr. Lief and Drs. Goldberg, Pykett and Rowinsky. Dr. Kostas was not a member of our board of directors on January 25, 2010. Each of the re-inducement and make-up options has an exercise price of \$8.00 per share, which was the closing price of our common stock on February 2, 2010. Each re-inducement option vests and becomes exercisable in 36 substantially equal monthly installments of 1/36th of the shares subject to the option at the end of each successive month following the date of grant, subject to the director's continuing service (as defined in the 2008 Omnibus Incentive Plan). Each make-up option vested and became exercisable in 12 substantially equal monthly installments of 1/12th of the shares subject to the option at the end of each successive month following June 3, 2009.

In connection with his appointment to our board of directors in February 2010, under the 2010 director compensation policy, Dr. Kostas became eligible to receive two stock option awards, an inducement option to purchase 4,000 shares of our common stock and a pro-rated annual option to purchase 1,333 shares of our common stock. The options were granted to Dr. Kostas on February 2, 2010 and have an exercise price of \$8.00 per share, which was the closing price of our common stock on February 2, 2010. The inducement option vests and becomes exercisable in 36 substantially equal monthly installments of 1/36th of the shares subject to the option at the end of each successive month following February 1, 2010, and the pro-rated annual option vested and became exercisable in four substantially equal monthly installments of 1/4th of the shares subject to the option at the end of each successive month following February 1, 2010.

The 2010 director compensation policy also provided for annual stock option awards. Pursuant to the policy, each non-employee director who was serving as such on June 30, 2010, the date of our 2010 annual meeting of stockholders, became eligible to receive an option to purchase 4,000 shares of our common stock. Our board of directors granted these annual options to each of Mr. Lief and Drs. Goldberg, Kostas, Pykett and Rowinsky on June 30, 2010 and each has an exercise price of \$1.63 per share, which was the closing price of our common stock on June 30, 2010. These options vest and become exercisable in 12 substantially equal monthly installments of 1/12th of the shares subject to the option at the end of each successive month following June 30, 2010, subject to the director's continuing service.

Pursuant to the 2010 director compensation policy, each stock option granted under the policy was granted under our 2008 Omnibus Incentive Plan and has a term equal to the shorter of (i) ten years from the date the option is granted and (ii) three years from the date the non-employee director ceases to provide services (as defined in the 2008 Omnibus Incentive Plan) to us for any reason other than such director's death or disability. In addition, in the event of a change of control of the Company, each stock option will vest and become exercisable on the day prior to the date of the change in control if the director is then providing services (as defined in the 2008 Omnibus Incentive Plan), and each option will terminate on the date of the change in control to the extent not exercised.

2011 Non-Employee Director Compensation Policy. Under the director compensation policy adopted by our board of directors in March 2011, in connection with each annual meeting of our stockholders, non-employee directors will be eligible to receive an annual option to purchase up to such number of shares of our common stock as is equal to (a) the allocated amount, which shall be the product of 0.0396% multiplied by the number of shares of our common stock outstanding as of the date of the applicable annual meeting of stockholders, plus (b) an adjustment amount, which shall be the difference between (i) the allocated amount for the current year's annual meeting of stockholders, minus (ii) the allocated amount that was applicable to the prior year's annual meeting of stockholders (unless a director was not a non-employee director at the time of the prior year's annual meeting of stockholders, in which case the adjustment amount for that director shall be based on the number of shares of our common stock outstanding as of the date of that director's appointment or election to our board of directors). However, the adjustment amount shall be included in the annual option for a director only if (x) the adjustment amount for that director exceeds 20% of the allocated amount for the current year's annual meeting of stockholders, (y) the Company's market capitalization (shares

outstanding multiplied by stock price) has not exceeded \$100 million for a sustained period, as determined unanimously by our board of directors, and (z) our board of directors unanimously determines to include the adjustment amount in such annual option. Each annual option shall vest and become exercisable in 12 substantially equal monthly installments of 1/12th of the shares subject to the option at the end of each successive month following the date of the applicable annual meeting of stockholders,

Table of Contents

subject to the director's continuing service (as defined in the 2008 Omnibus Incentive Plan or any amendment or restatement thereof).

In addition, any non-employee director initially appointed or elected to our board of directors after January 1, 2011, shall be eligible to receive an inducement option and a pro-rated annual option. The inducement option shall entitle the director to purchase up to such number of shares of our common stock as is equal to the new director allocated amount, which shall be the product of 0.0396% multiplied by the number of shares of our common stock outstanding as of the date of the director's initial appointment or election to our board of directors. The pro-rated annual option shall entitle the director to purchase up to such number of share of our common stock as is equal to (A) the quotient of the new director allocated amount, divided by 12, multiplied by (B) the number of full 30-day periods between the new director's date of appointment or election and the date of our next annual meeting of stockholders (or, if, on the new director's date of appointment or election, the date of our next annual meeting of stockholders has not been set, the one-year anniversary of the new director's date of appointment or election). Each inducement option shall vest and become exercisable in 36 substantially equal monthly installments of 1/36th of the shares subject to the option at the end of each successive month following the date of the director's initial appointment or election to our board of directors, subject to the director's continuing service (as defined in the 2008 Omnibus Incentive Plan or any amendment or restatement thereof). Each pro-rated annual option shall vest and become exercisable in such number of substantially equal monthly installments as is equal to the number of full 30-day periods between the director's initial appointment or election to our board of directors and the date of the next annual meeting of our stockholders.

Each stock option granted under the 2011 director compensation policy shall be granted under our 2008 Omnibus Incentive Plan or any amendment or restatement thereof, shall have an exercise price per share equal to the fair market value (as defined in the 2008 Omnibus Incentive Plan or any amendment or restatement thereof) of a share of our common stock on the date the option is granted, and shall have a term equal to the shorter of (i) ten years from the date the option is granted and (ii) three years from the date such non-employee director ceases to provide services (as defined in the 2008 Omnibus Incentive Plan or any amendment or restatement thereof) to us for any reason other than such director's death or disability. In addition, in the event of a change of control of the Company, each stock option will vest and become exercisable on the day prior to the date of the change in control if the director is then providing services (as defined in the 2008 Omnibus Incentive Plan or any amendment or restatement thereof), and each option will terminate on the date of the change in control to the extent not exercised.

Consulting Services Agreement with Eric K. Rowinsky

As of November 23, 2009, we entered into a consulting agreement with Eric K. Rowinsky, a member of our board of directors, pursuant to which Dr. Rowinsky provides consulting services to us from time to time at our request. His services to us may include responding to inquiries of ours regarding medical and clinical matters with which Dr. Rowinsky has knowledge, attending and participating in, at our request, meetings with the FDA regarding our new drug application for Exelbine, and providing advice and assistance regarding special projects or any other matter consistent with Dr. Rowinsky's background, skills and experience, which are described under Nominees for Election to the Board, above. Under the agreement, we pay Dr. Rowinsky at a rate of \$350 per hour for the services he provides to us, capped at \$100,000.

Table of Contents

AUDIT COMMITTEE REPORT

Under the guidance of a written charter adopted by our board of directors, the purpose of the audit committee is to oversee our accounting and financial reporting processes and audits of our financial statements and the effectiveness of our internal control over financial reporting. The responsibilities of the audit committee include appointing and providing for the compensation of an independent registered public accounting firm to conduct an annual audit of our financial statements and overseeing the work and evaluating the performance of the independent auditor. Each of the members of the audit committee meets the independence and qualification requirements of the NYSE Amex.

Management has primary responsibility for the financial statements and the reporting process, including the system of internal controls. The independent registered public accounting firm has the responsibility to express an opinion on the financial statements based on an audit conducted in accordance with generally accepted auditing standards.

In this context and in connection with the audited financial statements contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, the audit committee:

reviewed and discussed the audited financial statements as of and for the fiscal year ended December 31, 2010 with the Company's management;

discussed with J.H. Cohn LLP, our independent registered public accounting firm, the matters required to be discussed by Statement of Auditing Standards No. 61, as amended, as adopted by the Public Company Accounting Oversight Board in Rule 3200T;

reviewed the written disclosures and the letter from J.H. Cohn LLP required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the audit committee concerning independence, and has discussed with J.H. Cohn LLP its independence; and

based on the foregoing reviews and discussions, recommended to our board of directors that the audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2010 filed with the SEC.

AUDIT COMMITTEE

Jack Lief, Chair
Michael M. Goldberg
Odysseas D. Kostas

The preceding Audit Committee Report shall not be deemed soliciting material or filed with the SEC, nor shall any information in this report be incorporated by reference into any past or future filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent the Company specifically incorporates it by reference into such filing.

Table of Contents**PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The audit committee has appointed J.H. Cohn LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2011. We are asking our stockholders to ratify this appointment.

J.H. Cohn LLP served as our independent registered public accounting firm for fiscal years 2009 and 2010. The following table shows the fees paid or accrued by us for the audit and other services provided by J.H. Cohn LLP for fiscal years 2009 and 2010.

	2009	2010
Audit Fees(1)	\$ 217,000	\$ 106,200
Audit-Related Fees(2)	8,339	
Tax Fees		
All Other Fees		
Total	\$ 225,339	\$ 106,200

(1) **Audit Fees** represent fees for professional services provided in connection with the audit of our annual financial statements (including the audit of internal controls over financial reporting under Section 404 of the Sarbanes Oxley Act, if conducted), review of our quarterly financial statements, review of our registration statements on Forms S-3 and S-1, and related services normally provided in connection with statutory and regulatory filings and engagements.

(2) **Audit-Related Fees** consist primarily of assurance and related services that are reasonably related to the performance of the annual audit or review of our financial statements. During 2009, such fees were incurred for consultation in responding to SEC staff comments regarding our financial statements as of and for the year ended December 31, 2007 and our internal control over financial reporting.

Policy Regarding Pre-Approval of Audit and Non-Audit Services by the Company's Independent Registered Public Accounting Firm

We have established a policy that all audit and permissible non-audit services provided by our independent registered public accounting firm will be pre-approved by the audit committee. These services may include audit services, audit-related services, tax services and other services. The audit committee considers whether the provision of each non-audit service is compatible with maintaining the independence of our auditors.

Table of Contents

PROPOSAL 1 ELECTION OF DIRECTORS

At the Annual Meeting, our stockholders will vote on the election of six directors to serve for one-year terms until the 2012 annual meeting of stockholders and until their successors are elected and qualified, or until their earlier death, retirement, resignation or removal. Our board of directors has unanimously nominated Michael M. Goldberg, Odysseas D. Kostas, Jack Lief, Mark J. Pykett, Eric K. Rowinsky and Lewis J. Shuster for election to our board of directors at the Annual Meeting. The director nominees have indicated that they are willing and able to serve as directors. If any of the nominees becomes unable or unwilling to serve, the accompanying proxy may be voted for the election of such other person as shall be designated by our board of directors. The proxies being solicited will be voted for no more than six nominees at the Annual Meeting.

Assuming a quorum is present at the Annual Meeting, each director nominee who receives an affirmative vote of the holders of a majority of the shares of common stock having voting power present in person or represented by proxy at the Annual Meeting will be elected. Abstentions will have the same effect as negative votes. Broker non-votes will not be counted and will have no effect on the outcome of this proposal. Stockholders do not have cumulative voting rights in the election of directors.

Our board of directors recommends a vote FOR the election of Michael M. Goldberg, Odysseas D. Kostas, Jack Lief, Mark J. Pykett, Eric K. Rowinsky and Lewis J. Shuster as directors.

Unless otherwise instructed, it is the intention of the persons named in the accompanying proxy card to vote shares represented by properly executed proxy cards for the election of Michael M. Goldberg, Odysseas D. Kostas, Jack Lief, Mark J. Pykett, Eric K. Rowinsky and Lewis J. Shuster.

PROPOSAL 2 RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

At the Annual Meeting, our stockholders will be asked to ratify the appointment of J.H. Cohn LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2011. Stockholder ratification of the appointment of J.H. Cohn LLP as our independent registered public accounting firm is not required by our bylaws or otherwise. Our board of directors is submitting the appointment of J.H. Cohn LLP to our stockholders for ratification as a matter of good corporate practice. If our stockholders do not ratify the appointment of J.H. Cohn LLP, the audit committee will reconsider this appointment. Even if the appointment is ratified, the audit committee, in its discretion, may appoint a different independent registered public accounting firm at any time during the year if the audit committee determines that such a change would be in the best interests of the Company and our stockholders.

Assuming a quorum is present at the Annual Meeting, the affirmative vote of the holders of a majority of the shares of common stock having voting power present in person or represented by proxy at the Annual Meeting is required to approve this proposal. Abstentions will have the same effect as negative votes. A broker or other nominee will generally have discretionary authority to vote on this proposal because it is considered a routine matter, and therefore we do not expect broker non-votes with respect to this proposal.

We expect representatives of J.H. Cohn LLP to be present at the Annual Meeting and they will have the opportunity to make a statement at the Annual Meeting if they so desire. We also expect such representatives to be available to respond to appropriate questions.

Our board of directors recommends a vote FOR the ratification of the appointment of J.H. Cohn LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2011.

Table of Contents

**PROPOSAL 3 APPROVAL OF ADVENTRX PHARMACEUTICALS, INC.
AMENDED AND RESTATED 2008 OMNIBUS INCENTIVE PLAN**

On March 16, 2011, our board of directors approved the Amended and Restated 2008 Omnibus Incentive Plan (the Restated 2008 Plan), subject to the approval of our stockholders at the Annual Meeting. At the Annual Meeting, our stockholders will be asked to approve the Restated 2008 Plan, which is an amendment and restatement of the 2008 Omnibus Incentive Plan (the 2008 Plan) approved by our stockholders on May 28, 2008 at the 2008 annual meeting of stockholders. If approved at the Annual Meeting, the Restated 2008 Plan will become effective as of that date (the Restatement Effective Date). Our board of directors believes that the effective use of stock-based long-term incentive compensation is essential to maintain a balanced and competitive compensation program and is of great importance to our ability to achieve strong performance in the future.

A total of 616,000 shares of our common stock were reserved for awards under the 2008 Plan (on a post-April 23, 2010 reverse stock split basis). As of December 31, 2010, 405,969 shares remained available for awards, and, as of March 31, 2011, 161,315 shares remained available for awards under the 2008 Plan. As described below, the Restated 2008 Plan increases the number of shares of our common stock available for awards as of the Restatement Effective Date.

Approval of the Restated 2008 Plan will also serve to re-approve the material terms of the performance goals under the 2008 Plan with such changes as contained in the Restated 2008 Plan for purposes of Section 162(m) of the Internal Revenue Code (the Code). The material terms of the performance goals include the eligible class of employees, the business criteria (including new criteria) on which performance objectives may be based and the maximum amounts payable for the various types of awards under the Restated 2008 Plan, as described below. If the Restated 2008 Plan is approved by our stockholders, the effectiveness of the approval of the performance goals will last until 2016 for purposes of Section 162(m) of the Code.

Principal Changes

The principal changes in the Restated 2008 Plan from the 2008 Plan are as follows:

Increase in the shares available as of the Restatement Effective Date to 4,405,969, reduced as provided below.

Shares subject to awards granted under the 2008 Plan after December 31, 2010, other than stock options and stock appreciation rights (SARs), reduce the available shares under the Restated 2008 Plan by 1.5 shares for each share subject to the award (rather than 1.2 shares for each share subject to the award under the 2008 Plan).

Shares subject to awards under the Restated 2008 Plan and, after December 31, 2010, under the 2008 Plan and our 2005 Equity Incentive Plan (the 2005 Plan) that are forfeited, expire or settled for cash (in whole or in part), will be added back to the available shares as 1.5 shares for each share that is forfeited, expire or settled for cash (rather than 1.2 shares for each share subject to the award under the 2008 Plan).

The Restated 2008 Plan clarifies that shares reacquired by us using cash proceeds from the exercise of stock options will not be added back to the available shares.

If on the last day of the term of a stock option or SAR granted after the Restatement Effective Date the exercise of the award is prohibited by applicable law or the holder cannot sell shares of our common stock due to a black-out period under our insider trading policy, the term shall be automatically extended for a 30-day period

from the end of the prohibition or black-out period, as applicable.

Addition of requirements that dividends on restricted stock and dividend equivalents on restricted stock units and other share-based awards which vest based on the achievement of performance goals must either not be paid, or be accumulated, subject to the same restrictions and forfeiture risk as the restricted stock to which they relate, and can be paid only when the restrictions and forfeiture risk lapse.

Added to available business criteria for awards intended to satisfy the performance-based compensation exception under Section 162(m) of the Code: appreciation in and/or maintenance of the price of our common

Table of Contents

stock or any other securities of our company, including publicly-traded securities or a tracking security whether actual or constructed; appreciation in and/or maintenance of our market capitalization; cash levels at specified points in time, including year-end cash; having regulatory applications or other documents accepted for review by the applicable regulatory authority; initiating bioequivalence studies; initiating enrollment, completing enrollment or enrolling particular numbers of subjects in bioequivalence studies; dosing the first patient in a bioequivalence study; completing phases of a bioequivalence study; and announcing or presenting preliminary or final data from bioequivalence studies.

Revisions to the per person limitation on awards to (i) 2,000,000 shares subject to stock options or SARs granted in any 12-month period, and 2,500,000 shares in the year in which a person's services for the Company or a subsidiary commence, and (ii) for awards other than stock options and SARs that are intended to satisfy the performance-based compensation exception under Section 162(m) of the Code 1,500,000 shares earned for each 12 months in the vesting or performance period for awards denominated in shares, and 2,000,000 shares in the year in which a person's services for the Company or a subsidiary commence.

Extension of the last day to make awards to the tenth anniversary of the Restatement Effective Date.

Summary of the Restated 2008 Plan

The following summary of the principal features of the Restated 2008 Plan is qualified in its entirety by reference to the full text of the Restated 2008 Plan which is attached to this proxy statement as [Appendix A](#).

Purpose of the Plan. The purpose of the Restated 2008 Plan is to assist us and our subsidiaries in attracting and retaining selected individuals who, serving as our employees, directors, consultants and/or advisors, are expected to contribute to our success and to achieve long-term objectives which will benefit our stockholders through the additional incentives inherent in the awards under the Restated 2008 Plan.

Shares Available. The maximum number of shares of our common stock that are available for awards under the Restated 2008 Plan (subject to the adjustment provisions described under Adjustments upon Changes in Capitalization below), effective as of the Restatement Effective Date, is 4,405,969 shares, reduced for grants made after December 31, 2010 under the Restated 2008 Plan or the 2008 Plan by one (1) share of common stock for each share of common stock subject to an option or a SAR and (ii) by one and one-half (1.5) shares of common stock for each share of common stock subject to an award other than an option or a SAR. Since the effective date of the 2008 Plan, no awards have been or may be granted under the 2005 Plan.

If any shares of common stock subject to an award under the Restated 2008 Plan, or after December 31, 2010, an award under the 2008 Plan or the 2005 Plan, are forfeited, expire or are settled for cash (in whole or in part), the shares subject to the award may be used again for awards under the Restated 2008 Plan to the extent of the forfeiture, expiration or cash settlement. The shares of common stock will be added back as one (1) share for every share of common stock that was subject to an option or SAR and (ii) as one and one-half (1.5) shares for every share of common stock that was subject to an award other than an option or SAR. The following shares of common stock will not be added to the shares authorized for grant as described above: (i) shares tendered by a participant or withheld by us in payment of the purchase price of an option under the Restated 2008 Plan, the 2008 Plan or the 2005 Plan, (ii) shares tendered by a participant or withheld by us to satisfy tax withholding with respect to an award under the Restated 2008 Plan, the 2008 Plan or the 2005 Plan, (iii) shares subject to a SAR under the Restated 2008 Plan, the 2008 Plan or the 2005 Plan that are not issued in connection with the stock settlement of the SAR on exercise thereof, and (iv) shares repurchased by us in the open market with the proceeds from the exercise of an option under the Restated 2008 Plan, the 2008 Plan or the 2005 Plan.

Shares of our common stock under awards made under the Restated 2008 Plan in substitution or exchange for awards granted by a company acquired by us or a subsidiary, or with which we or a subsidiary combine (Substitute Awards), do not reduce the maximum number of shares that are available for awards under the Restated 2008 Plan. In addition, if a company acquired by us or a subsidiary, or with which we or a subsidiary combine, has shares remaining available under a plan approved by its stockholders, the available shares (adjusted to reflect the exchange or valuation ratio in the acquisition or combination) may be used for awards under the Restated 2008 Plan and will

Table of Contents

not reduce the maximum number of shares of our common stock that are available for awards under the Restated 2008 Plan; provided, however that awards using such available shares shall not be made after the date awards or grants could have been made under the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not our employees or directors prior to the acquisition or combination.

The maximum number of shares of Common Stock that may be issued under the Restated 2008 Plan pursuant to the exercise of incentive stock options effective as of the Restatement Effective Date is 4,405,969 shares.

Eligibility. Options, SARs, restricted stock awards, restricted stock unit awards, other share-based awards and performance awards may be granted under the Restated 2008 Plan. Options may be either incentive stock options, as defined in Section 422 of the Code, or nonstatutory stock options. Awards may be granted under the Restated 2008 Plan to any employee, non-employee member of our board of directors, consultant or advisor who is a natural person and provides services to us or a subsidiary, except for incentive stock options which may be granted only to employees. As of April 8, 2011, 5 employees and 6 non-employee directors were eligible to participate in the Restated 2008 Plan.

New Plan Benefits. The compensation committee of our board of directors (the Committee), in its discretion, selects the persons to whom awards may be granted, determines the type of awards, determines the times at which awards will be made, determines the number of shares subject to each such award (or the dollar value of certain performance awards), and determines the other terms and conditions relating to the awards, subject to the reservation of authority by our board of directors to administer the Restated 2008 Plan and act as the Committee thereunder. For this reason the benefits and amounts that will be received or allocated under the Restated 2008 Plan are not determinable at this time.

Limits on Awards to Participants. The Restated 2008 Plan provides that no participant may, in any 12-month period (i) be awarded options or SARs to purchase more than 2,000,000 shares of Common Stock or (ii) earn restricted stock awards, restricted stock unit awards, performance awards or other share based awards that are intended to be performance-based compensation under Section 162(m) of the Code with respect to more than 1,500,000 shares, except that, in connection with a participant's initial commencement of services, these limits are increased to 2,500,000 and 2,000,000 shares, respectively, in the year in which such services commence. Shares subject to a cancelled award continue to count against the applicable limit. The maximum dollar value that may be earned by any participant for each 12-month period with respect to performance-based awards that are intended to be performance-based compensation under Section 162(m) of the Code is \$2,000,000. The dollar value of a cancelled award will continue to count against the \$2,000,000 limit.

Administration. Subject to the reservation of authority by our board of directors to administer the Restated 2008 Plan and act as the Committee thereunder, the Restated 2008 Plan will be administered by the Committee (or a subcommittee) which shall consist of at least two members of our board of directors, each of whom must qualify as a non-employee director under Rule 16b-3 under the Securities Exchange Act of 1934, as amended, an outside director under Section 162(m) of the Code (to the extent the board of directors has members meeting such qualifications) and an independent director under the rules of the principal U.S. national securities exchange on which our common stock is traded (the Principal Exchange), to the extent required by such rules. The Committee has the authority to determine the terms and conditions of awards, and to interpret and administer the Restated 2008 Plan. The Committee may (i) delegate to a committee of one or more directors the right to make awards and to cancel or suspend awards and otherwise take action on its behalf under the Restated 2008 Plan (to the extent not inconsistent with applicable law, including Section 162(m) of the Code, and the rules of the Principal Exchange), and (ii) to the extent permitted by law, delegate to an executive officer or a committee of executive officers the right to make awards to employees who are not directors or executive officers and the authority to take action on behalf of the Committee pursuant to the Restated 2008 Plan to cancel or suspend awards under the Restated 2008 Plan to key employees who are not directors

or executive officers of the Company.

Stock Options. The Committee may grant either nonstatutory stock options or incentive stock options. A stock option entitles the recipient to purchase a specified number of shares of our common stock at a fixed price subject to terms and conditions set by the Committee. The purchase price of shares of common stock covered by a stock option cannot be less than 100% of the fair market value of the common stock on the date the option is granted. Fair market value of the common stock is generally equal to the closing price for the common stock on the Principal

Table of Contents

Exchange on the date the option is granted (or if there was no closing price on that date, on the last preceding date on which a closing price was reported), except for Substitute Awards. As of April 8, 2011, the closing price of a share of our common stock on the NYSE Amex was \$2.32 per share.

The Restated 2008 Plan permits payment of the purchase price of stock options to be made by cash or cash equivalents, shares of our common stock previously acquired by the participant, any other form of consideration approved by the Committee and permitted by applicable law (including withholding of shares of common stock that would otherwise be issued on exercise), or any combination thereof. Options granted under the Restated 2008 Plan expire no later than 10 years from the date of grant, except in the event of the participant's death or disability or if the exercise of an option, other than an incentive stock option, is prohibited by applicable law or the holder cannot purchase or sell shares of our common stock due to a black-out period under our insider trading policy, in which case the term of the option shall be automatically extended for a 30-day period from the end of the prohibition or black-out period.

Stock Appreciation Rights. The Committee is authorized to grant SARs in conjunction with a stock option or other award granted under the Restated 2008 Plan, and to grant SARs separately. The grant price of a SAR may not be less than 100% of the fair market value of a share of our common stock on the date the SAR is granted, except for Substitute Awards. The term of an SAR may be no more than 10 years from the date of grant, except in the event of the participant's death or disability or if the exercise of the SAR is prohibited by applicable law or the holder cannot purchase or sell shares of our common stock due to a black-out period under our insider trading policy, in which case the term of the option shall be automatically extended for a 30-day period from the end of the prohibition or black-out period. SARs are subject to terms and conditions set by the Committee.

Upon exercise of an SAR, the participant will have the right to receive the excess of the fair market value of the shares covered by the SAR on the date of exercise over the grant price. Payment may be made in cash, shares of our common stock or other property, or any combination thereof, as the Committee may determine. Shares issued upon the exercise of SARs are valued at their fair market value as of the date of exercise.

Restricted Stock Awards. Restricted stock awards may be issued either alone or in addition to other awards granted under the Restated 2008 Plan, and are also available as a form of payment of performance awards and other earned cash-based incentive compensation. The Committee determines the terms and conditions of restricted stock awards, including the number of shares of common stock granted, and conditions for vesting that must be satisfied, which may be based principally or solely on continued provision of services, and also may include a performance-based component. Unless otherwise provided in the award agreement, the holder of a restricted stock award will have the rights of a stockholder from the date of grant of the award, including the right to vote the shares of common stock and the right to receive distributions on the shares (subject to the requirements for dividends on restricted stock awards that vest based on the achievement of performance goals as described under *Dividends; Dividend Equivalents* below). Except as otherwise provided in the award agreement, any shares or other property (other than cash) distributed with respect to the award will be subject to the same restrictions as the award (subject to the requirements for dividends on restricted stock awards that vest based on the achievement of performance goals as described under *Dividends; Dividend Equivalents* below).

Restricted Stock Unit Awards. Awards of restricted stock units having a value equal to an identical number of shares of common stock may be granted either alone or in addition to other awards granted under the Restated 2008 Plan, and are also available as a form of payment of performance awards granted under the Restated 2008 Plan and other earned cash-based incentive compensation. The Committee determines the terms and conditions of restricted stock units, including conditions for vesting that must be satisfied, which may be based principally or solely on continued provision of services, and also may include a performance-based component. The holder of a restricted stock unit award will not have voting rights with respect to the award. Except as otherwise provided in the award agreement, any

shares or other property (other than cash) distributed with respect to the award will be subject to the same restrictions as the award (subject to the requirements for dividend equivalents on restricted stock unit awards that vest based on the achievement of performance goals as described under *Dividends; Dividend Equivalents* below).

Other Share-Based Awards. The Restated 2008 Plan also provides for the award of shares of our common stock and other awards that are valued by reference to our common stock or other property (*Other Share-Based*

Table of Contents

Awards). Such awards may be granted above or in addition to other awards under the Restated 2008 Plan. Other Share-Based Awards may be paid in cash, shares of our common stock or other property, or a combination thereof, as determined by the Committee. The Committee determines the terms and conditions of Other Share-Based Awards, including any conditions for vesting that must be satisfied.

Performance Awards. Performance awards provide participants with the opportunity to receive shares of our common stock, cash or other property based on performance and other vesting conditions. Performance awards may be granted from time to time as determined at the discretion of the Committee. Subject to the share limit and maximum dollar value set forth above under Limits on Awards to Participants, the Committee has the discretion to determine (i) the number of shares of common stock under, or the dollar value of, a performance award and (ii) the conditions that must be satisfied for grant or for vesting, which typically will be based principally or solely on achievement of performance goals.

Performance Criteria. At the Committee's discretion, performance goals for restricted stock awards, restricted stock units, performance awards or other share-based awards may be based on the attainment of specified levels of one or more of the following criteria: net sales; revenue; revenue growth or product revenue growth; operating income (before or after taxes); pre-or after-tax income (before or after allocation of corporate overhead and bonus); earnings per share; net income (before or after taxes); return on equity; total shareholder return; return on assets or net assets; appreciation in and/or maintenance of the price of the shares of our common stock or any other securities of the Company, including our publicly-traded securities or a tracking security whether actual or constructed; appreciation in and/or maintenance of the Company's market capitalization; market share; gross profits; earnings (including earnings before taxes, earnings before interest and taxes or earnings before interest, taxes, depreciation and amortization); economic value-added models or equivalent metrics; comparisons with various stock market indices; reductions in costs; cash flow or cash flow per share (before or after dividends); return on capital (including return on total capital or return on invested capital); cash flow return on investment; improvement in or attainment of expense levels or working capital levels; operating margins, gross margins or cash margin; cash levels at specified points in time, including year-end cash; debt reductions; stockholder equity; research and development achievements; manufacturing achievements (including obtaining particular yields from manufacturing runs and other measurable objectives related to process development activities); regulatory achievements (including submitting or filing applications or other documents with regulatory authorities, having any such applications or other documents accepted for review by the applicable regulatory authority or receiving approval of any such applications or other documents); passing pre-approval inspections (whether of the Company or the Company's third-party manufacturer) and validation of manufacturing processes (whether the Company's or the Company's third-party manufacturer's); clinical achievements (including initiating clinical or bioequivalence studies; initiating enrollment, completing enrollment or enrolling particular numbers of subjects in clinical or bioequivalence studies; dosing the first patient in a clinical or bioequivalence study; completing phases of a clinical or bioequivalence study (including the treatment phase); or announcing or presenting preliminary or final data from clinical or bioequivalence studies; in each case, whether on particular timelines or generally); strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property; establishing relationships with commercial entities with respect to the marketing, distribution and sale of the Company's products (including with group purchasing organizations, distributors and other vendors); supply chain achievements (including establishing relationships with manufacturers or suppliers of active pharmaceutical ingredients and other component materials and manufacturers of the Company's products); co-development, co-marketing, profit sharing, joint venture or other similar arrangements); financing and other capital raising transactions (including sales of the Company's equity or debt securities; factoring transactions; sales or licenses of the Company's assets, including its intellectual property, whether in a particular jurisdiction or territory or globally; or through partnering transactions); and implementation, completion or attainment of measurable objectives with respect to research, development, manufacturing, commercialization, products or projects, production volume levels, acquisitions and divestitures and recruiting and maintaining personnel. The performance goals may be based solely by reference to our performance or the performance of one or more of our subsidiaries, divisions, business segments or

business units, or based upon the relative performance of other companies or upon comparisons of any of the indicators of performance relative to other companies. The Committee may also exclude under the terms of the performance awards the impact of an event or occurrence which the Committee determines should appropriately be excluded, including (i) restructurings, discontinued operations, extraordinary items, and other unusual or non-recurring

Table of Contents

charges, (ii) an event either not directly related to our operations or not within the reasonable control of our management, or (iii) the cumulative effects of tax or accounting changes in accordance with U.S. generally accepted accounting principles.

Adjustments to Awards Subject to Performance Criteria. The Committee may make downward, but not upward, adjustments with respect to any amount payable pursuant to any restricted stock award, restricted stock unit award, performance award or other share-based payment award that is subject to performance criteria. The Committee may not waive achievement of performance goals, except in the case of death, disability or as otherwise determined by the Committee in special circumstances.

Dividends; Dividend Equivalents. Awards other than options and SARs may, if determined by the Committee, provide that the participant will be entitled to receive, currently or on a deferred basis, cash, stock or other property dividends, or cash payments in amounts equivalent to cash, stock, or other property dividends declared with respect to shares of common stock covered by an award. The Committee may provide that such amounts will be deemed to have been reinvested in additional shares of common stock or otherwise, and that they are subject to the same vesting or performance conditions as the underlying award. Any dividends or dividend equivalents provided with respect to performance awards or restricted stock, restricted stock unit or other share-based awards that are subject to the attainment of specified performance goals will be subject to the same restrictions and risk of forfeiture as the underlying awards.

No Repricing. The Restated 2008 Plan prohibits option and SAR repricings (other than to reflect stock splits, spin-offs or other corporate events described under *Adjustments upon Changes in Capitalization* below, or in connection with a change in control of the Company) unless stockholder approval is obtained. For purposes of the Restated 2008 Plan, a repricing means a reduction in the exercise price of an option or the grant price of a SAR, the cancellation of an option or SAR in exchange for cash or another award under the Restated 2008 Plan if the exercise price or grant price of the option or SAR is greater than the fair market value of our common stock (except in connection with a change in control, or for awards granted in assumption of or in substitution for awards previously granted by a company acquired by the Company or a subsidiary or with which the Company or a subsidiary combines), or any other action with respect to an option or SAR that may be treated as a repricing under the rules of the Principal Exchange.

Nontransferability of Awards. No award under the Restated 2008 Plan, and no shares subject to awards that have not been issued or as to which any applicable restriction, performance or deferral period has not lapsed, is transferable other than by will or the laws of descent and distribution, and an award may be exercised during the participant's lifetime only by the participant or the participant's estate, guardian or legal representative, except that the Committee may provide in an award agreement that a participant may transfer an award without consideration to certain family members, family trusts, or other family-owned entities, or for charitable donations under such terms and conditions determined by the Committee.

Adjustments upon Changes in Capitalization. In the event of any merger, reorganization, consolidation, recapitalization, dividend or distribution (whether in cash, shares or other property, other than a regular cash dividend), stock split, reverse stock split, spin-off or similar transaction or other change in our corporate structure affecting our common stock or the value thereof, appropriate adjustments to the Restated 2008 Plan and awards will be made as the Committee determines to be equitable and appropriate, including adjustments in the number and class of shares of stock available for awards under the Restated 2008 Plan, the number, class and exercise or grant price of shares subject to awards outstanding under the Restated 2008 Plan, and the limits on the number of awards that any person may receive.

Termination of Employment. The Committee will determine and set forth in the award agreement whether any awards will continue to be exercisable, and the terms of such exercise, on and after the date the participant ceases to be employed by, or to otherwise provide services to, us, whether by reason of death, disability, voluntary or involuntary termination of employment or service, or otherwise.

Amendment and Termination. The Restated 2008 Plan may be amended or terminated by our board of directors except that stockholder approval is required for any amendment to the Restated 2008 Plan which increases the number of shares of common stock available for awards under the Restated 2008 Plan, expands the types of

Table of Contents

awards available under the Restated 2008 Plan, materially expands the class of persons eligible to participate in the Restated 2008 Plan, permits the grant of options or SARs with an exercise or grant price of less than 100% of fair market value on the date of grant, amends the provisions of the Restated 2008 Plan prohibiting the repricing of options and SARs as described above under No Repricing, increases the limits on shares subject to awards or the dollar value payable with respect to performance awards, or takes any action with respect to an option or SAR that may be treated as a repricing under the rules of the Principal Exchange. No amendment or termination may materially impair a participant's rights under an award previously granted under the Restated 2008 Plan without the written consent of the participant.

The Restated 2008 Plan will expire on the 10th anniversary of the Restatement Effective Date, except with respect to awards then outstanding, and no further awards may be granted thereafter.

Federal Income Tax Consequences

The following discussion summarizes certain federal income tax considerations of awards under the Restated 2008 Plan. However, it does not purport to be complete and does not describe the state, local or foreign tax considerations or the consequences for any particular individual

Stock Options. A participant does not realize ordinary income on the grant of a stock option. Upon exercise of a nonstatutory stock option, the participant will realize ordinary income equal to the excess of the fair market value of the shares of common stock over the option exercise price. The cost basis of the shares acquired for capital gain treatment is their fair market value at the time of exercise. Upon exercise of an incentive stock option, the excess of the fair market value of the shares of common stock acquired over the option exercise price will be an item of tax preference to the participant, which may be subject to an alternative minimum tax for the year of exercise. If no disposition of the shares is made within two years from the date of granting of the incentive stock option or within one year after the transfer of the shares to the participant, the participant does not realize ordinary income for tax purposes as a result of exercising the incentive stock option. Instead, the sale of the shares will be a capital transaction. In this case, the tax basis of the shares received for capital gain treatment is the option exercise price and any gain or loss realized on the sale of the shares is long-term capital gain or loss. If the participant disposes of the shares within the two-year or one-year periods referred to above, the participant will realize ordinary income at that time in an amount equal to the excess of the fair market value of the shares at the time of exercise (or the net proceeds of disposition, if less) over the option exercise price. For capital gain treatment on such a disposition, the tax basis of the shares will be their fair market value at the time of exercise.

Stock Appreciation Rights. No ordinary income will be realized by a participant in connection with the grant of a SAR. When the SAR is exercised, the participant will realize ordinary income in an amount equal to the sum of the amount of any cash received and the fair market value of the shares of common stock or other property received upon the exercise.

Restricted Stock, Performance and Restricted Stock Unit Awards. The participant will not realize ordinary income on the grant of a restricted stock award (or a performance award if the shares of common stock are issued on grant), but will realize ordinary income when the shares subject to the award become vested in an amount equal to the excess of (i) the fair market value of the shares on the vesting date over (ii) the purchase price, if any, paid for the shares. The participant may, however, elect under Section 83(b) of the Code to include as ordinary income in the year the shares are granted an amount equal to the excess of (i) the fair market value of the shares on the date of issuance, over (ii) the purchase price, if any, paid for the shares. If the Section 83(b) election is made, the participant will not realize any additional taxable income when the shares become vested.

The participant will not realize ordinary income on the grant of a restricted stock unit award, (or a performance award under which shares of common stock are not issued on grant), but will realize ordinary income when the shares subject to the award are issued to the participant after they become vested. The amount of ordinary income will be equal to the excess of (i) the fair market value of the shares on the date they are issued over (ii) the purchase price, if any, paid for the award.

Upon disposition of shares of common stock acquired under a restricted stock award, performance award or restricted stock unit award, the participant will realize a capital gain or loss equal to the difference between the

Table of Contents

selling price and the sum of the amount paid for the shares plus any amount realized as ordinary income upon grant (or vesting) of the shares.

Company Tax Deduction. We generally will be entitled to a tax deduction in connection with an award under the Restated 2008 Plan, subject to the provisions of Section 162(m) of the Code, in an amount equal to the ordinary income realized by a participant at the time the participant realizes such income (for example, on the exercise of a nonqualified stock option). Section 162(m) of the Code may limit the deductibility of compensation paid to the Company's chief executive officer and to each of the next three most highly compensated executive officers other than the Company's chief financial officer. Under Section 162(m) of the Code, the annual compensation paid to any of these executives will be deductible to the extent that it does not exceed \$1,000,000 or if the compensation is performance-based compensation under Section 162(m) of the Code. Compensation attributable to stock options and SARs under the Restated 2008 Plan should qualify as performance-based compensation if the awards are made by the Committee (provided the Committee is composed of outside directors (as defined in Section 162(m) of the Code)) and the exercise or grant price of the award is no less than the fair market value of our common stock on the date of grant. Compensation attributable to restricted stock awards, restricted stock unit awards and performance awards should qualify as performance-based compensation if (i) the compensation is approved by the Committee, (ii) the compensation is paid only upon the achievement of an objective performance goal established in writing by the Committee while the outcome is substantially uncertain, and (iii) the Committee certifies in writing prior to the payment of the compensation that the performance goal has been satisfied.

Equity Compensation Plan Information

The following table provides information as of December 31, 2010 regarding equity compensation plans previously approved by our stockholders. We do not have any equity compensation plans that have not been approved by our stockholders. All share and per share information included in this table reflects retrospective application of the 1-for-25 reverse split of our outstanding common stock effected on April 23, 2010.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)) (c)
Equity Compensation Plans Approved by Security Holders:			
2008 Omnibus Incentive Plan(1)	349,379	\$ 5.71	405,969
2005 Equity Incentive Plan(1)	54,358	\$ 55.28	0
2005 Employee Stock Purchase Plan(2)	0	\$	186,945

**Equity Compensation Plans Not Approved by
Security Holders:**

Total	403,737	\$ 12.39	592,914
--------------	---------	----------	---------

- (1) In May 2008, our stockholders approved the 2008 Plan, following which no awards have been or will be granted under the 2005 Plan and no automatic increase has or will occur to the maximum number of shares that may be issued pursuant to the 2005 Plan. However, the 2005 Plan will continue to govern any outstanding awards previously granted under that plan. If any awards granted under the 2005 Plan are forfeited, expire or are settled for cash pursuant to the terms of an award, we may use the shares that were subject to the award for new awards under the 2008 Plan. Currently, the shares of common stock will be added to the 2008 Plan as one share for every one share of common stock forfeited, expired or settled for cash if the shares were subject to options or stock appreciation rights granted under the 2005 Plan and as 1.2 shares for every one share of common stock forfeited, expired or settled for cash if the shares were subject to awards other than options or stock appreciation

Table of Contents

rights granted under the 2005 Plan. However, as more fully described above under Summary of the Restated 2008 Plan, if our stockholders approve the Restated 2008 Plan, shares subject to awards other than options or stock appreciation rights granted under the 2005 Plan that are forfeited, expired or settled for cash will be added to the Restated 2008 Plan as 1.5 shares for every one share of common stock forfeited, expired or settled.

- (2) Our 2005 Employee Stock Purchase Plan contains a provision for an automatic increase in the number of shares available for grant on the first day of each fiscal year beginning in 2006 and on each anniversary of that date thereafter equal to the lesser of (i) one percent of the number of outstanding shares of our common stock on such day, (ii) 30,000 and (iii) such other amount as our board of directors may specify prior to the date such annual increase is to take effect. Although the 2005 Employee Stock Purchase Plan was approved by our stockholders in 2005, we have not issued any shares under it.

Past Awards under the 2008 Plan and 2005 Plan

As of December 31, 2010, 403,737 shares of our common stock were reserved for issuance upon exercise of outstanding awards under the 2008 Plan and the 2005 Plan. All such outstanding awards are stock options. These outstanding options had a weighted average remaining term of 8.46 years and a weighted average exercise price of \$12.39. As of December 31, 2010, 405,969 shares remained available for future issuance under the 2008 Plan. Since May 28, 2008, the effective date of the 2008 Plan, no awards could be made under the 2005 Plan.

The following table sets forth the number of equity awards granted by the Company under the 2008 Plan during the years ended December 31, 2010, 2009 and 2008 (no shares have been issued under the 2005 Plan since the effective date of the 2008 Plan or under the 2005 Employee Stock Purchase Plan because it has not been implemented by the Company). In addition, the table provides the number of shares of common stock issued following the vesting of performance awards (performance shares, and performance-based restricted stock and RSUs) and the weighted average number of shares of common stock outstanding for the year indicated. The information in the table reflects retrospective application of the 1-for-25 reverse stock split of our outstanding common stock effected on April 23, 2010.

Year	Number of Shares of Common Stock Underlying Options Granted	Number of Shares of Common Stock Underlying Time-Based Restricted Stock and RSUs Granted	Number of Shares of Common Stock Issued Following Vesting of Earned Performance Awards	Weighted Average Number of Shares of Common Stock Outstanding
2010	203,381			13,180,583
2009	135,998		(1)	4,667,160
2008	115,220			3,610,103

- (1) Performance-based restricted stock units were granted under the 2008 Plan in January 2009, but all such awards were cancelled or forfeited during 2009 prior to vesting.

In 2008 and 2009, we implemented numerous restructuring and cost-cutting initiatives, which included significant workforce reductions. From July 2009 until December 31, 2010, we had only two to four employees. However, we plan to increase our workforce in the near-term in connection with preparing for the commercial launch of Exelbinetm (vinorelbine injectable emulsion), should it be approved by the U.S. Food and Drug Administration, or FDA, and initiating clinical activities with respect to ANX-514 (docetaxel emulsion for injection) and ANX-188 (purified poloxamer 188), should we reach agreement with the FDA regarding phase 3 clinical studies for those product candidates, and we expect equity awards to be a key component of compensation packages necessary to attract and retain new employees.

Table of Contents**Specific Past Awards under the 2008 Plan**

The following table sets forth past awards granted to the persons or groups specified below under the 2008 Plan through April 8, 2011. The information in the table reflects retrospective application of the 1-for-25 reverse stock split of our outstanding common stock effected on April 23, 2010.

Name and Position	Number of Shares of Common Stock Underlying Options Granted	Number of Shares of Common Stock Underlying Restricted Stock Units Granted
Named Executive Officers:		
Brian M. Culley, Chief Executive Officer	231,998	48,000(1)
Patrick L. Keran, President and Chief Operating Officer	231,998	34,000(1)
All current executive officers as a group (3 persons)	463,996	82,000(1)
All current directors who are not executive officers as a group (6 persons)	65,333	
Each associate of any such executive officers, directors or nominees (0 persons)		
Each other person who received 5% of such options, warrants or rights under the 2008 Plan (0 persons)		
All current employees as a group, excluding current executive officers (2 persons)	62,704	

(1) The restricted stock units were forfeited by the executive officers prior to vesting.

Registration under the Securities Act of 1933

We plan to register the securities issuable under the Restated 2008 Plan pursuant to a registration statement on Form S-8 as soon as practicable following stockholder approval of the Restated 2008 Plan.

Interest of Certain Persons

Each of our directors and executive officers would be eligible to participate in the Restated 2008 Plan. As a result, approval of the Restated 2008 Plan impacts each of our directors and executive officers and each of them has a personal interest in this proposal and its approval by our stockholders.

Vote Required

Assuming a quorum is present at the Annual Meeting, approval of the Restated 2008 Plan requires the affirmative vote of the holders of a majority of the shares of our common stock having voting power present in person or represented by proxy at the Annual Meeting, assuming quorum is present. Abstentions will have the same effect as negative votes. Broker non-votes will not be counted and will have no effect on the outcome of this proposal.

Our board of directors recommends a vote FOR the approval of the Amended and Restated 2008 Omnibus Incentive Plan.

Table of Contents

PROPOSAL 4 APPROVAL OF THE ISSUANCE OF UP TO 13,478,050 SHARES OF OUR COMMON STOCK IN LIEU OF CASH FOR MILESTONE PAYMENTS PURSUANT TO THE MERGER AGREEMENT WITH SYNTHRX, INC.

Background

On April 8, 2011 (the Closing Date), we completed the acquisition of SynthRx, Inc., a Delaware corporation (SynthRx), pursuant to the Agreement and Plan of Merger, dated February 12, 2011 (the Merger Agreement), by and among the Company, SRX Acquisition Corporation, a Delaware corporation and wholly owned subsidiary of ours (Merger Sub), SynthRx and an individual who is a principal stockholder of SynthRx (the Stockholders Agent). As of the Closing Date, SynthRx became a wholly owned subsidiary of ours. SynthRx's lead product candidate is a novel, purified, rheologic and antithrombotic compound, poloxamer 188, which we will develop as ANX-188.

Pursuant to the Merger Agreement, we issued 2,800,851 shares of our common stock (the Closing Shares) to the former SynthRx stockholders, over 75% of which are either unvested and subject to repurchase rights or subject to escrow to cover indemnification obligations as further described below. The Merger Agreement further provides that we are required, subject to the prior approval of our stockholders, to issue up to an additional 13,478,050 shares of our common stock to the former SynthRx stockholders if development of ANX-188 achieves the milestones described below (the Milestone Shares). If we do not receive the necessary stockholder approval to issue the Milestone Shares, the Merger Agreement provides that we shall make cash payments (as described below) to the former SynthRx stockholders in lieu of issuing the Milestone Shares.

No vote of our stockholders was required to complete our acquisition of SynthRx pursuant to the Merger Agreement (the Merger), and we are not seeking any approval or ratification of the Merger Agreement or the Merger at the Annual Meeting. Under Delaware law, our stockholders do not have any dissenters' rights or rights to an appraisal of the value of their shares in connection with the Merger or this proposal. However, as a NYSE Amex listed company, we are required to obtain stockholder approval prior to issuing shares of our common stock where the present or potential issuance of the shares as consideration for an acquisition of the stock or assets of another company could result in an increase in our outstanding common shares of 20% or more. Because the potential issuance of the Milestone Shares, together with our prior issuance of the Closing Shares, could exceed 20% of our outstanding common shares based on our outstanding common shares as of the Closing Date, we are seeking approval of the issuance of the Milestone Shares in lieu of cash payments to the former SynthRx stockholders, if and when the applicable milestones are achieved. We agreed in the Merger Agreement to seek stockholder approval to issue the Milestone Shares at the Annual Meeting.

Certain Effects of the Proposal

If our stockholders do not approve the issuance of the Milestone Shares on or before December 31, 2011, the Merger Agreement requires that, in connection with the achievement of any milestone set forth in the Merger Agreement, we pay the former SynthRx stockholders the cash value of the Milestone Shares we otherwise would have issued. We cannot determine the amount of the potential cash payments to the former SynthRx stockholders because the amount of such payments will depend on the 10-day volume weighted average of the closing prices of our common stock immediately prior to achievement of the applicable milestone and the market price of our common stock historically has been, and likely will continue to be, highly volatile. Any milestone-related cash payment will be payable in quarterly installments. If the First Milestone Payment (as defined below) must be made in cash, such amount will be payable at a rate of \$1,000,000 per calendar quarter and, if the Second Milestone Payment or the Third Milestone Payment (each as defined below) must be made in cash, such amounts will be payable at a rate of 35% of net sales for

the applicable calendar quarter of intravenous injection products in which a purified form of poloxamer 188 is an active ingredient.

If our stockholders approve this proposal, we will be able to issue up to an aggregate of 13,478,050 shares of our common stock (i.e., the Milestone Shares) to the former SynthRx stockholders if development of ANX-188 achieves the milestones set forth in the Merger Agreement and described below, and conserve our cash for development and/or commercialization activities related to ANX-188 and our other product candidates. Our existing stockholders ownership stake, however, will be diluted by the issuance of the Milestone Shares. Based on

Table of Contents

our outstanding common stock as of April 8, 2011, if we assume the issuance of all Milestone Shares as of that date, a total of 39,943,759 shares of our common stock would have been outstanding on that date, and the former SynthRx stockholders would have an approximate 41% ownership stake in the Company, which includes both the Closing Shares and the Milestone Shares.

In addition, pursuant to the Voting and Transfer Restriction Agreement described below, former SynthRx stockholders that collectively held over 95% of the outstanding capital stock of SynthRx, each has agreed to vote all shares of our common stock beneficially owned by that stockholder with respect to every action or approval by written consent of our stockholders in such manner as directed by us, except in limited circumstances, and has executed an irrevocable proxy appointing and authorizing us to vote such shares in such manner. As a result, we may have significant control over substantially all future matters requiring approval by our stockholders, including the election of directors and the approval of certain mergers and other business combination transactions. Even if less than all of the Milestone Shares are issued, our ability to control a potentially significant block of stockholder votes pursuant to the Voting and Transfer Restriction Agreement may enable us to substantially affect the outcome of future proposals brought before our stockholders. The Voting and Transfer Restriction Agreement terminates only upon the transfer, in accordance with that agreement, of all Closing Shares and Milestone Shares by the stockholder parties thereto and their affiliates to non-affiliates. Although our board of directors acts in a manner it believes is in the best interest of our stockholders as a whole, the interests of our stockholders as a whole may not always coincide with the interests of individual stockholders or particular groups of stockholders. However, we believe that the Voting and Transfer Restriction Agreement was in the best interests of the Company and our existing stockholders to prevent an inadvertent change in control of the Company in connection with the Merger and the potential issuance of such a significant number of shares of our common stock to the former SynthRx stockholders.

Financial Information

Our financial statements for the fiscal year ended December 31, 2010 are included in our Annual Report on Form 10-K for the year ended December 31, 2010, a copy of which is being provided to our stockholders with this proxy statement.

Reasons for Our Acquisition of SynthRx

SynthRx is developing a novel, purified, rheologic and antithrombotic compound, poloxamer 188, which, since the closing of the Merger we refer to as ANX-188. We believe ANX-188 is a late-stage product candidate that restores hydration lattices and minimizes the cascade of adhesive, inflammatory and coagulation responses that cause adhesion of cells, impaired blood flow and tissue ischemia. ANX-188 may have numerous applications as a cytoprotective, rheologic, antithrombotic and anti-inflammatory agent. Poloxamer 188 has been evaluated in clinical studies for the treatment of acute myocardial infarction, sickle cell disease and malaria, including a 2,950-patient, randomized, controlled study in acute myocardial infarction. The effectiveness of poloxamer 188 also has been observed in studies investigating its application in stroke, hemorrhagic shock, bypass surgery, adult respiratory distress syndrome, neurologic protection in deep hypothermic circulatory arrest, vasospasm, spinal cord injury, angioplasty, frostbite, amniotic fluid embolism, acute ischemic bowel disease and burns.

We initially intend to develop ANX-188 for the treatment of pediatric patients with sickle cell disease in acute crisis, which is associated with microvascular occlusion. The safety and efficacy of poloxamer 188 and purified poloxamer 188 in sickle cell disease have been evaluated in multiple clinical studies, including a 255-patient, randomized, double-blind, placebo-controlled phase 3 study in patients with sickle cell disease in acute vaso-occlusive crisis. In the phase 3 study of purified poloxamer 188, signs of efficacy were observed in the primary endpoint, duration of crisis. However, features of the study's design and the study not enrolling the originally-planned number of patients may have diluted the treatment effect or its significance. Notably, in a planned subgroup analysis in children (n=73), in which

the effect of confounding factors may have been mitigated (such as chronic pain syndrome, which is less prevalent in children), a statistically significant and greater treatment effect was observed. In terms of safety, there were no differences between the two treatment groups in the overall incidence of adverse events, for adverse events defined as serious, or for adverse events involving any body system for the groups as a whole. It was determined that renal function was not influenced by treatment with purified poloxamer 188. However, the purified poloxamer 188 arm did exhibit a modest but statistically significant increase in levels of

Table of Contents

alanine aminotransferase and direct bilirubin, each of which returned to its respective baseline level by the day-35 follow-up visit. We believe that a properly designed and executed clinical study will demonstrate that ANX-188 is an effective treatment for sickle cell crisis and plan to conduct a phase 3 study of ANX-188 in a pediatric population for that indication.

More than \$1 billion is spent annually in the U.S. to treat patients with sickle cell disease. We estimate that, in the U.S., sickle cell disease results in over 95,000 hospitalizations and approximately 69,000 emergency department treat-and-release encounters each year. When a patient with sickle cell disease makes an institutional visit, vaso-occlusive crisis is the primary diagnosis in approximately 77% of hospital admissions and 64% of emergency room treat-and-release encounters. In addition, although the number of untreated crisis events is difficult to measure, we estimate that it is substantial and in the hundreds of thousands in the U.S. each year. We believe that, if ANX-188 is approved, as people with sickle cell disease are made aware of the new therapy, more people who suffer from vaso-occlusive crisis will seek treatment.

Currently, most treatment options for sickle cell crisis are focused on symptomatic relief, such as hydration and morphine or other analgesics for pain, or treatment to address complications. We believe that development activities conducted by prior sponsors makes ANX-188 an attractive, late-stage product candidate with substantial potential to improve the lives of patients suffering from sickle cell disease.

Background of the Merger

Since June 2009, we have raised an aggregate of approximately \$56.7 million in net proceeds through equity financing transactions and, in addition to using those funds to continue to develop Exelbina and ANX-514, in 2010, we began to focus on expanding our product pipeline through one or more in-license, asset acquisition or merger transactions. We retained the investment banking firm Canaccord Genuity Inc. to advise us in this regard and our board of directors formed a special committee to assist it in evaluating potential opportunities. Our management and the special committee, with assistance from Canaccord Genuity, evaluated numerous opportunities with companies with a wide range of development programs, ultimately focusing on product candidates with a defined pathway to substantial value points, manageable acquisition and development costs, robust data to support the development and regulatory approval thesis relative to acquisition and development costs, and anticipated market acceptance. During this process, we identified SynthRx as a company whose lead product candidate has a strong fit with the product pipeline expansion strategy we developed.

SynthRx was a private company formed in 2004 to acquire purified poloxamer 188 from CytRx Corporation, following the merger and restructuring of that company. The co-founders of SynthRx had been involved with the development of poloxamer 188 while at CytRx. After acquiring these rights, SynthRx did not have the financial resources to pursue the development of purified poloxamer 188.

In the third and fourth quarters of 2010, our management and members of the special committee had informal discussions with certain principal stockholders of SynthRx regarding a potential acquisition of certain rights and assets from SynthRx, including those related to purified poloxamer 188. Following these discussions, our management and other Company representatives conducted a preliminary due-diligence review of SynthRx, after which the parties, on November 29, 2010, entered into a non-binding letter of intent. The letter of intent contemplated the acquisition of certain rights and assets from SynthRx in an all stock transaction with payment terms structured in substantially the same manner as in the Merger Agreement (i.e., with the majority (more than 75%) of the consideration payable only in the event that a new drug application (NDA) for purified poloxamer 188 for the treatment of sickle cell crisis in children was accepted for review by the U.S. Food and Drug Administration (FDA) and approval of that NDA by the FDA). Subsequently, we agreed to structure the transaction as an acquisition through the merging of SynthRx and a wholly owned subsidiary of ours, rather than an asset acquisition, to increase the likelihood that the transaction would

be a tax free reorganization. However, the structure of the payment terms remained such that the majority of the merger consideration would be paid only in the event of achievement of the development and regulatory milestones identified above and described in detail below. In other words, the majority of the merger consideration will be paid only if and as the ANX-188 program demonstrates success. In addition, we structured the transaction so as not to require approval by our stockholders to accelerate the timeline to closing and our initiation of development activities with respect to ANX-188.

Table of Contents

Accordingly, the terms of the Merger Agreement were structured such that the parties could close the transaction and we could subsequently seek stockholder approval of the issuance of the Milestone Shares.

In the event that our stockholders do not approve issuance of the Milestone Shares, we negotiated provisions in the Merger Agreement that would allow us to make the milestone-related cash payments over time (in quarterly installments) and, with respect to the Second Milestone Payment or the Third Milestone Payment (each as defined below), only if ANX-188 is approved and we receive revenue from net sales of the product. Although the Merger Agreement contains these protections with respect to the cash payment obligations, we believe it is in the best interest of the Company and our stockholders that we conserve our cash for the development and commercialization of our current product candidates and the potential acquisition, development and commercialization of future product candidates and issue the Milestone Shares in lieu of cash payments to the former SynthRx stockholders, if and when the applicable milestones are achieved.

During the period from November 2010 to February 2011, we conducted an in-depth due diligence investigation of SynthRx using both internal and external resources, including Canaccord Genuity. Canaccord Genuity also was involved in the negotiation of the Merger Agreement.

On February 10, 2011, our board of directors held a meeting at which representatives of legal counsel and Canaccord Genuity were present and, after consultation with management and these outside advisors and lengthy discussion, approved the Merger Agreement, the Voting and Transfer Restriction Agreement described below and other ancillary transaction agreements.

On February 12, 2011, the Company and SynthRx executed the Merger Agreement and the Voting and Transfer Restriction Agreement.

On April 8, 2011, we completed the acquisition of SynthRx.

Throughout the negotiation and diligence process, our board of directors consulted legal advisors and Canaccord Genuity on relevant financial issues, and undertook a comprehensive review of the potential benefits and liabilities associated with an acquisition of SynthRx and the proposed structure of the transaction. Between September 2010 and February 2011, the special committee of our board of directors held numerous informal conference calls and our full board of directors formally met five times to consider the transaction, among other things. In negotiating the terms of the transaction, our board of directors focused on the goal of maximizing value for our stockholders.

Description of the Transaction Documents

The following is a summary of material terms of the Merger Agreement and the Voting and Transfer Restriction Agreement. While we believe this description covers the material terms of these agreements, we encourage you to read the Merger Agreement and the Voting and Transfer Restriction Agreement, which were included as Exhibits 2.1 and 10.1, respectively, to our Current Report on Form 8-K filed on April 11, 2011. For more information about accessing the Current Report on Form 8-K and the other information we file with the SEC, please see Information Incorporated By Reference below.

Merger Agreement

As described above, on February 12, 2011, we entered into the Merger Agreement with Merger Sub, SynthRx and the Stockholders Agent. Pursuant to the Merger Agreement, upon the completion of the Merger on the Closing Date, Merger Sub merged with and into SynthRx, with SynthRx continuing as the surviving corporation and becoming our wholly owned subsidiary. As consideration for the Merger, at the effective time of the Merger (the Effective Time), all

shares of SynthRx common stock outstanding immediately prior to the Merger were cancelled and automatically converted into the right to receive shares of our common stock, in the aggregate, as follows:

(i) 1,000,000 shares (the Fully Vested Shares) of our common stock at the Effective Time; provided, however that, pursuant to the Merger Agreement, 137,922 shares were deducted from the number of Fully Vested Shares issued as a result of certain transaction expenses of SynthRx and 200,000 of the Fully Vested

Table of Contents

Shares were deposited into escrow (the Closing Escrow Amount) to indemnify the Company against breaches of representations and warranties;

(ii) up to 1,938,773 shares of our common stock at the Effective Time (the Subject to Vesting Shares, which, together with the 862,078 Fully Vested Shares issued to the former SynthRx stockholders and the escrow agent, we refer to as the Closing Shares), which Subject to Vesting Shares are subject to various repurchase rights by the Company and fully vest, subject to reduction upon certain events, upon achievement of the First Milestone (defined below);

(iii) up to 1,000,000 shares of our common stock (the First Milestone Shares), issued upon achievement of the First Milestone (the First Milestone Payment); provided, however, that in the event the First Milestone is achieved prior to the first anniversary of the closing of the Merger, twenty percent (20%) of the First Milestone Payment shall be deposited into escrow (the First Milestone Escrow Amount, and together with the Closing Escrow Amount, the Escrow Amount). The First Milestone means the dosing of the first patient in a phase 3 clinical study carried out pursuant to a protocol that is mutually agreed to by SynthRx and the Company; provided, however, that the number of evaluable patients planned to target statistical significance with a p value of 0.01 in the primary endpoint shall not exceed 250 (unless otherwise mutually agreed) (the First Protocol). In the event that the FDA indicates that a single phase 3 clinical study will not be adequate to support approval of a new drug application covering the use of purified poloxamer 188 for the treatment of sickle cell crisis in children (the 188 NDA), First Milestone shall mean the dosing of the first patient in a phase 3 clinical study carried out pursuant to a protocol that (a) is mutually agreed to by SynthRx and the Company as such and (b) describes a phase 3 clinical study that the FDA has indicated may be sufficient, with the phase 3 clinical study described in the First Protocol, to support approval of the 188 NDA.

(iv) 3,839,400 shares of our common stock (the Second Milestone Shares), issued upon achievement of the Second Milestone (the Second Milestone Payment). The Second Milestone shall mean the acceptance for review of the 188 NDA by the FDA; and

(v) 8,638,650 shares of our common stock (the Third Milestone Shares, which, together with the First Milestone Shares and the Second Milestone Shares, we refer to as the Milestone Shares), issued upon achievement of the Third Milestone (the Third Milestone Payment, and together with the First Milestone Payment and the Second Milestone Payment, the Milestone Payments). The Third Milestone shall mean the approval by the FDA of the 188 NDA.

Notwithstanding anything set forth above, in the event that the issuance of the Milestone Shares (x) violates federal or state securities laws or the listing standards of any national securities exchange to which we are subject at the time of such issuance, or (y) we are unable to obtain the affirmative vote of the holders of a majority of our common stock approving the issuance of the Milestone Shares on or before December 31, 2011, we are required to make the applicable Milestone Payments, or portion thereof, in cash based on the product of (x) the number of shares of our common stock issuable upon achievement of an applicable milestone and (y) the daily volume weighted average of actual closing prices measured in hundredths of cents of our common stock on the NYSE Amex, or such other national securities exchange on which the our common stock is then listed, for the ten consecutive trading days immediately prior to the applicable Milestone Payment. Any Milestone Payment made in cash will be payable in quarterly installments. If the First Milestone Payment must be made in cash, such amount will be payable at a rate of \$1,000,000 per calendar quarter and, if the Second Milestone Payment or the Third Milestone Payment must be made in cash, such amounts will be payable at a rate of 35% of net sales for the applicable calendar quarter of intravenous injection products in which a purified form of poloxamer 188 is an active ingredient.

The parties made customary representations, warranties and covenants in the Merger Agreement, including among other things, covenants (a) that we would, at the first annual meeting of stockholders following execution of the Merger Agreement, or, in our discretion, at a special meeting of stockholders prior to that annual meeting, submit for stockholder approval a proposal to authorize the issuance of the Milestone Shares; (b) that we would, immediately

following the closing of the Merger, appoint an individual proposed by SynthRx to our board of directors, which individual was Lewis J. Shuster, (c) that we would prepare and file with the Securities and Exchange Commission as soon as reasonably practicable, but in no event later than one hundred twenty (120) days

Table of Contents

following the Effective Time, a re-sale registration statement on Form S-3 with respect to the Fully Vested Shares, Subject to Vesting Shares and the Milestone Shares (the Registration Statement); (d) that we will use commercially reasonable best efforts (i) to request a meeting with the FDA to occur within nine (9) months of the closing of the Merger for the purpose of discussing clinical development and regulatory approval of a target product and (ii) during the one (1) year period following the closing of the Merger, to conduct certain activities related to SynthRx's business; provided, the aggregate cost of such activities does not exceed \$1.5 million; (e) that we will use commercially reasonable efforts until the earlier of achievement of the Third Milestone or the date that is four (4) years after February 12, 2011 to develop an intravenous injection product in which a purified form of poloxamer 188 is an active ingredient; and (f) until the earlier of the achievement of the Third Milestone and the date that is four (4) years following February 12, 2011, that we will not consummate a change of control transaction with a third party that involves all or substantially all of SynthRx's assets, except (x) in connection with an Exempt Transaction (as defined below) or (y) with the written consent of SynthRx, which consent shall not be unreasonably withheld, conditioned or delayed. An Exempt Transaction is a change of control that closes prior to achievement of the Third Milestone in which the acquiror agrees in writing to submit the 188 NDA to the FDA for FDA approval (or, if there are unexpected safety or regulatory issues, to conduct activities to address or resolve such issues) until the earlier of (x) the date that, beginning at the Effective Time and thereafter, the aggregate expenditure related to the program involving the product candidate on which the 188 NDA is to be based is at least \$15,000,000 and (y) the fourth anniversary of the Effective Time; provided, however, such acquiror shall be relieved of such obligations under certain specified conditions.

Pursuant to the Merger Agreement, the Company, on the one hand, and the stockholders of SynthRx on the other, agreed to indemnify and hold the other harmless as a result of the breach of the representations, warranties and covenants in the Merger Agreement. To provide a fund for payment to the Company in respect of our indemnification rights, the Escrow Amount will be held in escrow for 12 months following the closing of the Merger. Subject to certain limited exceptions, no claim for indemnification of losses by the Company shall be made unless the aggregate amount of losses exceeds \$25,000, in which case we shall be entitled to seek compensation for all losses without regard to such limitation. Subject to certain exceptions, the Merger Agreement provides for a maximum limit on indemnification by the stockholders of SynthRx equal to the Escrow Amount, plus 100% of the applicable Milestone Payments that have not yet been paid.

Voting and Transfer Restriction Agreement

On February 12, 2011, in connection with the Merger Agreement, the Company, each of the former principal stockholders of SynthRx and, solely with respect to Section 3(c) thereof, the Stockholders' Agent, entered into the Stockholders' Voting and Transfer Restriction Agreement (the Voting and Transfer Restriction Agreement). The Voting and Transfer Restriction Agreement became effective on the Closing Date and will terminate upon the transfer, in accordance with that agreement, of all Closing Shares and Milestone Shares by the stockholder parties thereto and their affiliates to non-affiliates.

Pursuant to the terms and conditions of the Voting and Transfer Restriction Agreement, each former principal SynthRx stockholder has agreed to vote all shares of our common stock then beneficially owned by that stockholder with respect to every action or approval by written consent of our stockholders in such manner as directed by us. Notwithstanding the foregoing, until the earlier of: (i) achievement of the Third Milestone and (ii) the four (4) year anniversary of the closing of the Merger, each stockholder party shall be permitted to vote any shares of our common stock that he, she or it beneficially owns in such person's sole discretion solely with respect to a change of control that involves the transfer of SynthRx's assets to a third party and in which at least eighty percent (80%) of the consideration received by the Company (or its stockholders) is non-contingent and paid in cash.

The Voting and Transfer Restriction Agreement also provides that no shares of our common stock that are (i) subject to vesting in accordance with the terms of the Merger Agreement and/or (ii) that have been deposited in escrow may

be transferred until such shares have vested and/or are released from escrow, as applicable (and upon such vesting or release, as applicable, such shares shall be referred to as the Transferable Shares). The stockholder parties shall be permitted to transfer any Transferable Shares to an affiliate or pursuant to any private resale transactions or series of transactions undertaken in compliance with the Securities Act of 1933, as amended (the Securities Act), any rules and regulations promulgated thereunder, and any applicable state securities laws;

Table of Contents

provided, however, that such transferee shall be or shall have become a party to the Voting and Transfer Restriction Agreement and shall have agreed in writing to be bound by all of the terms and conditions thereof.

The Voting and Transfer Restriction Agreement also provides that upon the effectiveness of (x) the Registration Statement or (y) upon such Transferrable Shares becoming freely transferable to the public in compliance with Rule 144 promulgated under the Securities Act, the stockholder parties, as a group, shall have the right to transfer on each trading day on any eligible market such aggregate number of Transferable Shares equal to or less than ten percent (10%) of the average daily trading volume of our common stock. In addition, upon the effectiveness of (x) the Registration Statement, or (y) upon such Transferrable Shares becoming freely transferable to the public in compliance with Rule 144 promulgated under the Securities Act, the stockholder parties, as a group, shall have the right, exercisable not more than once in any twelve (12)-month period, to transfer Transferable Shares on any eligible market in an amount equal to, in the aggregate, five (5) times the average daily trading volume of our common stock.

Description of Our Common Stock

We are authorized to issue 500,000,000 shares of common stock, par value \$0.001 per share, of which 26,465,709 shares were issued and outstanding as of April 8, 2011. Additional shares of authorized common stock may be issued, as authorized by our board of directors from time to time, without stockholder approval, except as may be required by applicable securities exchange requirements. The holders of our common stock possess exclusive voting rights in us, except to the extent our board of directors specifies voting power with respect to any other class of securities issued in the future. Each holder of our common stock is entitled to one vote for each share held of record on each matter submitted to a vote of stockholders, including the election of directors. Stockholders do not have any right to cumulate votes in the election of directors.

Subject to preferences that may be granted to the holders of preferred stock, each holder of our common stock is entitled to share ratably in distributions to stockholders and to receive ratably such dividends as may be declared by our board of directors out of funds legally available therefor. In the event of our liquidation, dissolution or winding up, the holders of our common stock will be entitled to receive, after payment of all of our debts and liabilities and of all sums to which holders of any preferred stock may be entitled, the distribution of any of our remaining assets. Holders of our common stock have no conversion, exchange, sinking fund or redemption rights (other than such as may be determined by our board of directors in its sole discretion) and have no preemptive rights to subscribe for any of our securities.

Interest of Certain Persons

Pursuant to the Merger Agreement and effective as of immediately following the closing of the Merger, Mr. Lewis J. Shuster was appointed to our board of directors, as the individual proposed by SynthRx. Mr. Shuster did not join our board of directors until after the approval and the consummation of the Merger, did not participate in his capacity as a director in discussions of, or vote with respect to, matters related to the Merger that were approved by our board of directors, including the board of directors' vote recommending approval of the issuance of the Milestone Shares. Pursuant to our current director compensation policy, as a non-employee member of our board of directors, Mr. Shuster will receive a quarterly retainer of \$5,000 and \$1,000 for each meeting of our board of directors that he attends. In addition, pursuant to the director compensation policy, in connection with his initial appointment to our board of directors as a non-employee director, he is eligible to receive an inducement option to purchase up to 10,480 shares of our common stock and a pro-rated annual option to purchase up to 1,747 shares of our common stock. If granted by our board of directors, these stock option awards will be subject to the terms and conditions of our 2008 Omnibus Incentive Plan, as amended and/or restated, and have an exercise price equal to the fair market value (as defined in the 2008 Omnibus Incentive Plan or any amendment or restatement thereto) of a share of our common stock on the date the option is granted. If granted, the inducement option will vest and become exercisable in 36

substantially equal monthly installments beginning on May 8, 2011, and the pro-rated annual option will vest and become exercisable in two substantially equal monthly installments beginning on May 8, 2011. The term of each of these options will be equal to the shorter of (i) ten years from the date of grant and (ii) three years from the date Mr. Shuster ceases to provide services (as defined in the 2008 Omnibus Incentive Plan or any amendment or restatement thereto) to us for any reason other than his death or disability. In the event of a change in

Table of Contents

control of the Company, each option would vest and become exercisable on the day prior to the date of the change in control if Mr. Shuster is then providing services, and each option would terminate on the date of the change in control to the extent not exercised.

We have entered into an offer letter agreement with R. Martin Emanuele, a former principal stockholder of SynthRx, effective as of the Closing Date, whereby we will employ Dr. Emanuele as our Senior Vice President, Development. We expect Dr. Emanuele to commence employment with us on April 27, 2011. Pursuant to the offer letter agreement, Dr. Emanuele's initial annual base salary will be \$275,000. In addition, he will be eligible for an incentive award payable in cash or stock, the target amount of which will be 30% of the base salary earned by Dr. Emanuele in 2011. Dr. Emanuele's award will be based on our achievement of 2011 corporate performance objectives and his achievement of individual performance objectives that have not yet been established, and, in the event we adopt a short-term incentive/bonus plan, other than with respect to his target award amount, Dr. Emanuele's incentive award will be granted under that plan on the same terms and conditions generally applicable to other similarly situated employees of ours. Pursuant to the offer letter agreement, if Dr. Emanuele's employment is terminated as a result of an involuntary termination and he delivers and does not revoke a release of claims to us, he will be entitled to severance benefits of (a) an amount equal to nine months of his then-current base salary, less standard withholdings, payable in a lump-sum, (b) if the involuntary termination occurs during the first 12 months of Dr. Emanuele's employment, an amount equal to the difference between his initial annual base salary and the amount of base salary paid to him before his termination, less standard withholdings, payable in a lump-sum, and (c) an amount equal to the estimated cost of continuing his health care coverage and the coverage of his dependents who are covered at the time of the involuntary termination under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, for a period of nine months, payable in lump-sum. As a former stockholder of SynthRx, we issued 546,628 of the Closing Shares to Dr. Emanuele, up to 42,035 of the shares deposited into escrow may be released to him, and we may issue up to 2,833,086 of the Milestone Shares to Dr. Emanuele, or pay him the dollar equivalent thereof, as determined pursuant to the Merger Agreement. Dr. Emanuele is a stockholder party to the Voting and Transfer Restriction Agreement as well as the Stockholders' Agent for purposes of both the Merger Agreement and the Voting and Transfer Restriction Agreement.

NYSE Amex Stockholder Approval Requirements

As discussed above, because our common stock is listed on the NYSE Amex Equities, we are subject to NYSE Amex requirements set forth in the NYSE Amex LLC Company Guide. Section 712 of the NYSE Amex LLC Company Guide requires stockholder approval prior to the issuance of shares to be issued as sole or partial consideration for an acquisition of the stock or assets of another company in the following circumstances: (a) if any individual director, officer or substantial shareholder of the listed company has a 5% or greater interest (or such persons collectively have a 10% or greater interest), directly or indirectly, in the company or assets to be acquired or in the consideration to be paid in the transaction and the present or potential issuance of common stock, or securities convertible into common stock, could result in an increase in outstanding common shares of 5% or more; or (b) where the present or potential issuance of the listed company's common stock, or securities convertible into common stock, could result in an increase in outstanding common shares of 20% or more. Because the issuance of the Milestone Shares, together with the issuance of the Closing Shares, could result in an increase in the outstanding shares of our common stock of 20% or more, based on our outstanding common stock immediately prior to issuance of the Closing Shares, we are seeking stockholder approval of the issuance of the Milestone Shares.

Vote Required

Assuming a quorum is present at the Annual Meeting, the affirmative vote of the holders of a majority of the shares of common stock having voting power present in person or represented by proxy at the Annual Meeting is required to approve this proposal. Abstentions will have the same effect as negative votes. Broker non-votes will not be counted

and will have no effect on the outcome of this proposal.

Under NYSE Amex rules and regulations, the former SynthRx stockholders are not permitted to affect the outcome of the vote on this proposal. Therefore, for purposes of determining whether this proposal is approved, to the extent any former SynthRx stockholder votes his, her or its Closing Shares with respect to this proposal, regardless of how the former SynthRx stockholder actually votes such Closing Shares, those votes will be counted

Table of Contents

with respect to this proposal as having been voted in the same proportion FOR, AGAINST and ABSTAIN as the shares of our common stock voted by the non-SynthRx stockholders with respect to this proposal.

Our board of directors believes that the issuance of the Milestone Shares pursuant to the terms and conditions of the Merger Agreement is in the best interests of the Company and our stockholders and recommends a vote FOR the approval of the issuance of up to 13,478,050 shares of our common stock as the Milestone Shares.

OTHER MATTERS

As of the time of preparation of this proxy statement, neither our board of directors nor our management knows of any matter to be presented at the Annual Meeting which is not listed in the Notice of Annual Meeting accompanying this proxy statement and described in this proxy statement. If any other matters should properly come before the Annual Meeting or any adjournment or postponement thereof, however, the persons named in the accompanying proxy will vote on such matters in accordance with their judgment.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference into this proxy statement information contained in documents we file with the SEC. This means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this proxy statement, and later information that we file with the SEC as specified below will update and supersede that information. We incorporate by reference into this proxy statement the following filings:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, filed with the SEC on March 10, 2011;

our Current Reports on Form 8-K, filed with the SEC on February 14, 2011, March 22, 2011 and April 11, 2011, and any amendments subsequently filed to such Current Reports; and

all reports and documents we file pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, on or after the date of our notice to stockholders of the Annual Meeting until the date of the Annual Meeting (other than information furnished under Items 2.02 or 7.01 of Form 8-K).

The documents incorporated by reference into this proxy statement will be provided to you without charge upon your written or oral request and by first class mail or other equally prompt means within one business day of receipt of such request. Requests should be directed to ADVENTRX Pharmaceuticals, Inc., 12390 El Camino Real, Suite 150, San Diego, California 92130, Attn: Corporate Secretary, telephone: (858) 552-0866. You may also access these documents through our website at <http://www.adventrx.com> or through the SEC's website at <http://www.sec.gov>. Other than the documents incorporated by reference into this proxy statement, the information contained on our website is not incorporated into this proxy statement.

Table of Contents

STOCKHOLDER PROPOSALS FOR 2012 ANNUAL MEETING

The deadline for submitting a stockholder proposal for inclusion in our proxy materials for our 2012 Annual Meeting of Stockholders is [], 2012, which is 120 days prior to the first anniversary of the mailing date of this proxy statement. These proposals must be delivered to our principal executive offices and comply with the requirements as to form and substance established by the SEC for such proposals in order to be included in our proxy materials. Stockholders who wish to nominate persons for election to our board of directors or make a proposal at the 2012 Annual Meeting of Stockholders without including the proposal in our proxy materials relating to that meeting must notify us in writing delivered to our principal executive offices no earlier than [], 2012 and no later than [], 2012. Stockholders are advised to review our bylaws, which contain additional advance notice requirements. A copy of our bylaws is available to stockholders upon written request to our corporate secretary.

By Order of the Board of Directors,

Brian M. Culley
Chief Executive Officer

San Diego, California
[], 2011

YOUR VOTE IS IMPORTANT!

You are cordially invited to attend the Annual Meeting. However, to ensure that your shares are represented at the Annual Meeting, please submit your proxy promptly by signing, dating and returning your proxy card in the postage paid envelope provided. This will not prevent you from attending or voting in person at the Annual Meeting if you so desire, but will help the Company secure a quorum and avoid added proxy solicitation costs.

Table of Contents

Appendix A

**ADVENTRX PHARMACEUTICALS, INC.
AMENDED AND RESTATED 2008 OMNIBUS INCENTIVE PLAN**

ADVENTRX Pharmaceuticals, Inc. (the Company), a Delaware corporation, hereby establishes and adopts the following Amended and Restated 2008 Omnibus Incentive Plan (this Plan).

1. PURPOSE OF THIS PLAN

The purpose of this Plan is to assist the Company and its Subsidiaries in attracting and retaining selected individuals to serve as employees, directors, consultants and/or advisors of the Company and its Subsidiaries who are expected to contribute to the Company's success and to achieve long-term objectives that will benefit stockholders of the Company through the additional incentives inherent in the Awards hereunder.

2. DEFINITIONS

2.1. *Award* shall mean any Option, Stock Appreciation Right, Restricted Stock Award, Restricted Stock Unit Award, Other Share-Based Award, Performance Award or any other right, interest or option relating to Shares or other property (including cash) granted pursuant to the provisions of this Plan.

2.2. *Award Agreement* shall mean any agreement, contract or other instrument or document evidencing any Award hereunder, including through an electronic medium.

2.3. *Board* shall mean the board of directors of the Company.

2.4. *Code* shall mean the Internal Revenue Code of 1986, as amended from time to time.

2.5. *Committee* shall mean the Compensation Committee of the Board or a subcommittee thereof formed by the Compensation Committee to act as the Committee hereunder. The Committee shall consist of no fewer than two Directors, each of whom is (i) a Non-Employee Director within the meaning of Rule 16b-3 of the Exchange Act, (ii) an outside director within the meaning of Section 162(m) of the Code, to the extent the Board has members meeting such qualifications, and (iii) an independent director for purpose of the rules of the principal U.S. national securities exchange on which the Shares are traded, to the extent required by such rules. Anything to the contrary in this Plan notwithstanding, the Board reserves all authority to administer this Plan and to act as if the Committee hereunder.

2.6. *Consultant* shall mean any consultant or advisor who is a natural person and who provides services to the Company or any Subsidiary, so long as such person (i) renders bona fide services that are not in connection with the offer and sale of the Company's securities in a capital raising transaction and (ii) does not directly or indirectly promote or maintain a market for the Company's securities.

2.7. *Covered Employee* shall mean an employee of the Company or its subsidiaries who is a covered employee within the meaning of Section 162(m) of the Code.

2.8. *Director* shall mean a non-employee member of the Board.

2.9. *Dividend Equivalents* shall have the meaning set forth in Section 12.5.

2.10. *Employee* shall mean any employee of the Company or any Subsidiary and any prospective employee conditioned upon, and effective not earlier than, such person becoming an employee of the Company or any Subsidiary.

2.11. *Exchange Act* shall mean the Securities Exchange Act of 1934, as amended.

2.12. *Fair Market Value* shall mean, with respect to Shares as of any date, the per Share closing price of the Shares (i) if the Shares are listed on a national securities exchange, the closing sale price reported as having occurred on the principal securities exchange on which the Shares are listed and traded on such date, or, if there is no such sale on that date, then on the last preceding date on which such a sale was reported; (ii) if the Shares are not listed on any

Table of Contents

national securities exchange but is quoted in an inter-dealer quotation system on a last sale basis, the final ask price reported on such date, or, if there is no such sale on such date, then on the last preceding date on which a sale was reported; or (iii) if the Shares are not listed on a national securities exchange nor quoted on an inter-dealer quotation system on a last sale basis, the amount determined by the Committee to be the fair market value of the Shares as determined by the Committee in its sole discretion. The Fair Market Value of any property other than Shares shall mean the market value of such property determined by such methods or procedures as shall be established from time to time by the Committee, subject to the requirements of Section 409A of the Code.

2.13. *Limitations* shall have the meaning set forth in Section 10.5.

2.14. *Option* shall mean any right granted to a Participant under this Plan allowing such Participant to purchase Shares at such price or prices and during such period or periods as the Committee shall determine.

2.15. *Original Plan* shall have the meaning set forth in Section 13.13.

2.16. *Other Share-Based Award* shall have the meaning set forth in Section 8.1.

2.17. *Participant* shall mean an Employee, Consultant or Director who is selected by the Committee to receive an Award under this Plan.

2.18. *Payee* shall have the meaning set forth in Section 13.2.

2.19. *Performance Award* shall mean any Award of Performance Cash, Performance Shares or Performance Units granted pursuant to Article 9.

2.20. *Performance Cash* shall mean any cash incentives granted pursuant to Article 9 which will be paid to the Participant upon the achievement of such performance goals as the Committee shall establish.

2.21. *Performance Period* shall mean the period established by the Committee during which any performance goals specified by the Committee with respect to such Award are to be measured.

2.22. *Performance Share* shall mean any grant pursuant to Article 9 of a unit valued by reference to a designated number of Shares, which value will be paid to the Participant upon achievement of such performance goals as the Committee shall establish.

2.23. *Performance Unit* shall mean any grant pursuant to Article 9 of a unit valued by reference to a designated amount of cash or property other than Shares, which value will be paid to the Participant upon achievement of such performance goals during the Performance Period as the Committee shall establish.

2.24. *Permitted Assignee* shall have the meaning set forth in Section 12.3.

2.25. *Prior Plan* shall mean the Company's 2005 Equity Incentive Plan.

2.26. *Restatement Effective Date* shall have the meaning set forth in Section 13.13.

2.27. *Restricted Stock* shall mean any Share issued with the restriction that the holder may not sell, transfer, pledge or assign such Share and with such other restrictions as the Committee, in its sole discretion, may impose (including any restriction on the right to vote such Share and the right to receive any dividends), which restrictions may lapse separately or in combination at such time or times, in installments or otherwise, as the Committee may deem

appropriate.

2.28. *Restricted Stock Award* shall have the meaning set forth in Section 7.1.

2.29 *Restricted Stock Unit* means an Award that is valued by reference to a Share, which value may be paid to the Participant by delivery of such property as the Committee shall determine, including without limitation, cash or Shares, or any combination thereof, and that has such restrictions as the Committee, in its sole discretion, may impose, including without limitation, any restriction on the right to retain such Awards, to sell, transfer, pledge or assign such Awards, and/or to receive any cash Dividend Equivalents with respect to such Awards, which restrictions may lapse separately or in combination at such time or times, in installments or otherwise, as the Committee may deem appropriate,

2.30 *Restricted Stock Unit Award* shall have the meaning set forth in Section 7.1

A-2

Table of Contents

2.31 *Services* shall mean services provided to the Company or any Subsidiary or any successor company (or a subsidiary or parent thereof), whether as an Employee, Consultant or Director, unless, in connection with the conversion, if any, of a Participant from one classification (i.e., Employee, Consultant or Director) to another, the Committee, in its sole and absolute discretion, determines that any on-going services to the Company or any Subsidiary or any successor company (or a subsidiary or parent thereof) shall not constitute *Services*.

2.32. *Shares* shall mean the shares of common stock of the Company, par value \$0.001 per share.

2.33. *Stock Appreciation Right* shall mean the right granted to a Participant pursuant to Article 6.

2.34. *Subsidiary* shall mean any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company if, at the relevant time each of the corporations other than the last corporation in the unbroken chain owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in the chain.

2.35. *Substitute Awards* shall mean Awards granted or Shares issued by the Company in assumption of, or in substitution or exchange for, awards previously granted, or the right or obligation to make future awards, in each case by a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines.

3. SHARES SUBJECT TO THIS PLAN

3.1 *Number of Shares.* (a) Subject to adjustment as provided in Section 12.2, as of the Restatement Effective Date, a total of 4,405,969 Shares shall be authorized for grant under this Plan, reduced for grants made after December 31, 2010 under this Plan or the Original Plan by one (1) Share for each Share subject to an Option or a Stock Appreciation Right and (ii) by one and one-half (1.5) Shares for each Share subject to an Award other than an Option or a Stock Appreciation Right. Since the effective date of the Original Plan, no awards have been or may be granted under the Prior Plan.

(b) Subject at all times to Section 13.17, if (i) any Shares subject to an Award are forfeited or expire or an Award is settled for cash (in whole or in part) pursuant to the terms of an Award Agreement, or (ii) after December 31, 2010, any Shares subject to an award under the Prior Plan are forfeited or expire or an award under the Prior Plan is settled for cash (in whole or in part) pursuant to the terms of an award agreement, the Shares subject to such Award or award under the Prior Plan shall, to the extent of such forfeiture, expiration or cash settlement, again be available for Awards under this Plan, in accordance with Section 3.1(d) below. Notwithstanding anything to the contrary contained herein, the following Shares shall not be added to the Shares authorized for grant under paragraph (a) of this Section:

(i) Shares tendered by the Participant or withheld by the Company in payment of the purchase price of an Option, (ii) Shares tendered by the Participant or withheld by the Company to satisfy any tax withholding obligation with respect to an Award, (iii) Shares subject to a Stock Appreciation Right that are not issued in connection with the stock settlement of the Stock Appreciation Right on exercise thereof, and (iv) Shares reacquired by the Company on the open market or otherwise using cash proceeds from the exercise of Options.

(c) Substitute Awards shall not reduce the Shares authorized for grant under this Plan or authorized for grant to a Participant under Section 10.5. Additionally, in the event that a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines has shares available under a pre-existing plan approved by stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as adjusted, to the extent appropriate, using the exchange ratio or other adjustment or valuation ratio or formula used in such acquisition or combination to determine the consideration payable to the holders of common stock of the entities party to such acquisition or combination) may be used for Awards under this Plan and shall not reduce the Shares authorized for grant under this Plan; provided that Awards

using such available shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not Employees or Directors prior to such acquisition or combination.

(d) Any Share that again becomes available for grant pursuant to this Article shall be added back as (i) one (1) Share if such Share was subject to an Option or a Stock Appreciation Right granted under this Plan or the Original Plan or an option or a stock appreciation right granted under the Prior Plan, and (ii) one and one-half (1.5)

A-3

Table of Contents

Shares if such Share was subject to an Award other than an Option or a Stock Appreciation Right granted under this Plan or the Original Plan or an award other than an option or a stock appreciation right granted under the Prior Plan.

3.2. *Character of Shares.* Any Shares issued hereunder may consist, in whole or in part, of authorized and unissued shares, treasury shares or shares purchased in the open market or otherwise.

4. ELIGIBILITY AND ADMINISTRATION

4.1. *Eligibility.* Any Employee, Consultant or Director shall be eligible to be selected as a Participant.

4.2. *Administration.* (a) This Plan shall be administered by the Committee. The Committee shall have full power and authority, subject to the provisions of this Plan and subject to such orders or resolutions not inconsistent with the provisions of this Plan as may from time to time be adopted by the Board, to: (i) select the Employees and Directors to whom Awards may from time to time be granted hereunder; (ii) determine the type or types of Awards, not inconsistent with the provisions of this Plan, to be granted to each Participant hereunder; (iii) determine the number of Shares to be covered by each Award granted hereunder; (iv) determine the terms and conditions, not inconsistent with the provisions of this Plan, of any Award granted hereunder; (v) determine whether, to what extent and under what circumstances Awards may be settled in cash, Shares or other property; (vi) determine whether, to what extent, and under what circumstances cash, Shares, other property and other amounts payable with respect to an Award made under this Plan shall be deferred either automatically or at the election of the Participant; (vii) determine whether, to what extent and under what circumstances any Award shall be canceled or suspended; (viii) interpret and administer this Plan and any instrument or agreement entered into under or in connection with this Plan, including any Award Agreement; (ix) correct any defect, supply any omission or reconcile any inconsistency in this Plan or any Award in the manner and to the extent that the Committee shall deem desirable to carry it into effect; (x) establish such rules and regulations and appoint such agents as it shall deem appropriate for the proper administration of this Plan; (xi) determine whether any Award, other than an Option or Stock Appreciation Right, will have Dividend Equivalents; and (xii) make any other determination and take any other action that the Committee deems necessary or desirable for administration of this Plan.

(b) Decisions of the Committee shall be final, conclusive and binding on all persons or entities, including the Company, any Participant, and any Subsidiary.

(c) To the extent not inconsistent with applicable law, including Section 162(m) of the Code, or the rules and regulations of the principal U.S. national securities exchange on which the Shares are traded, the Committee may delegate to (i) a committee of one or more directors of the Company any of the authority of the Committee under this Plan, including the right to grant, cancel or suspend Awards and (ii) to the extent permitted by law, to one or more executive officers or a committee of executive officers the right to grant Awards to Employees who are not Directors or executive officers of the Company and the authority to take action on behalf of the Committee pursuant to this Plan to cancel or suspend Awards to Employees who are not Directors or executive officers of the Company.

5. OPTIONS

5.1. *Grant of Options.* Options may be granted hereunder to Participants either alone or in addition to other Awards granted under this Plan. Any Option shall be subject to the terms and conditions of this Article and to such additional terms and conditions, not inconsistent with the provisions of this Plan, as the Committee shall deem desirable.

5.2. *Award Agreements.* All Options granted pursuant to this Article shall be evidenced by a written Award Agreement in such form and containing such terms and conditions as the Committee shall determine which are not inconsistent with the provisions of this Plan. The terms of Options need not be the same with respect to each

Participant. Granting an Option pursuant to this Plan shall impose no obligation on the recipient to exercise such Option. Any individual who is granted an Option pursuant to this Article may hold more than one Option granted pursuant to this Plan at the same time.

5.3. *Option Price.* Other than in connection with Substitute Awards, the option price per each Share purchasable under any Option granted pursuant to this Article shall not be less than 100% of the Fair Market Value of one Share on the date of grant of such Option. Other than pursuant to Section 12.2, the Committee shall not

Table of Contents

without the approval of the Company's stockholders (a) lower the option price per Share of an Option after it is granted, (b) cancel an Option when the option price per Share exceeds the Fair Market Value of the underlying Shares in exchange for cash or another Award (other than in connection with a Change in Control or a Substitute Award), or (c) take any other action with respect to an Option that would be treated as a repricing under the rules and regulations of the principal securities exchange on which the Shares are traded.

5.4. Option Term. The term of each Option shall be fixed by the Committee in its sole discretion; provided that no Option shall be exercisable after the expiration of ten (10) years from the date the Option is granted, except in the event of death or disability. Notwithstanding the foregoing, in the event that on the last business day of the term of an Option that was granted on or after the Restatement Effective Date, (i) the exercise of the Option, other than an Incentive Stock Option, is prohibited by applicable law or (ii) Shares may not be purchased or sold by certain employees or directors of the Company due to the "black-out period" of a Company insider trading policy, the term of the Option shall be extended for a period of thirty (30) days following the end of the legal prohibition or black-out period, as applicable.

5.5. Exercise of Options. (a) Options granted under this Plan shall be exercised by the Participant or by a Permitted Assignee thereof (or by the Participant's executors, administrators, guardian or legal representative, as may be provided in an Award Agreement) as to all or part of the Shares covered thereby, by giving notice of exercise to the Company or its designated agent, specifying the number of Shares to be purchased. The notice of exercise shall be in such form, made in such manner, and in compliance with such other requirements consistent with the provisions of this Plan as the Committee may prescribe from time to time

(b) Unless otherwise provided in an Award Agreement, full payment of such purchase price shall be made at the time of exercise and shall be made (i) in cash or cash equivalents (including certified check or bank check or wire transfer of immediately available funds), (ii) by tendering previously acquired Shares (either actually or by attestation, valued at their then Fair Market Value), (iii) with the consent of the Committee, by delivery of other consideration having a Fair Market Value on the exercise date equal to the total purchase price, (iv) with the consent of the Committee, by withholding Shares otherwise issuable in connection with the exercise of the Option, (v) through same-day sales through a broker, unless the Committee provides otherwise in an Award Agreement, (vi) through any other method specified in an Award Agreement, or (vii) through any combination of any of the foregoing. The notice of exercise, accompanied by such payment, shall be delivered to the Company at its principal business office or such other office as the Committee may from time to time direct, and shall be in such form, containing such further provisions consistent with the provisions of this Plan, as the Committee may from time to time prescribe. In no event may any Option granted hereunder be exercised for a fraction of a Share. No adjustment shall be made for cash dividends or other rights for which the record date is prior to the date of such issuance.

5.6. Form of Settlement. In its sole discretion, the Committee may provide that the Shares to be issued upon an Option's exercise shall be in the form of Restricted Stock or other similar securities.

5.7. Incentive Stock Options. The Committee may grant Options intended to qualify as "incentive stock options" as defined in Section 422 of the Code, to any employee of the Company or any Subsidiary, subject to the requirements of Section 422 of the Code. Solely for purposes of determining whether Shares are available for the grant of "incentive stock options" under this Plan, the maximum aggregate number of Shares that may be issued pursuant to "incentive stock options" granted under this Plan shall be the number of Shares set forth in the first sentence of Section 3.1(a), subject to adjustments provided in Section 12.2.

6. STOCK APPRECIATION RIGHTS

6.1. *Grant and Exercise.* The Committee may provide Stock Appreciation Rights (a) in conjunction with all or part of any Option granted under this Plan or at any subsequent time during the term of such Option, (b) in conjunction with all or part of any Award (other than an Option) granted under this Plan or at any subsequent time during the term of such Award, or (c) without regard to any Option or other Award in each case upon such terms and conditions as the Committee may establish in its sole discretion.

A-5

Table of Contents

6.2. *Terms and Conditions.* Stock Appreciation Rights shall be subject to such terms and conditions, not inconsistent with the provisions of this Plan, as shall be determined from time to time by the Committee, including the following:

(a) Upon the exercise of a Stock Appreciation Right, the holder shall have the right to receive the excess of (i) the Fair Market Value of one Share on the date of exercise (or such amount less than such Fair Market Value as the Committee shall so determine at any time during a specified period before the date of exercise) over (ii) the grant price of the Stock Appreciation Right on the date of grant, which, except in the case of Substitute Awards or in connection with an adjustment provided in Section 12.2, shall not be less than the Fair Market Value of one Share on such date of grant of the Stock Appreciation Right.

(b) The Committee shall determine in its sole discretion whether payment of a Stock Appreciation Right shall be made in cash, in whole Shares or other property, or any combination thereof.

(c) The provisions of Stock Appreciation Rights need not be the same with respect to each recipient.

(d) The Committee may impose such other conditions or restrictions on the terms of exercise and the grant price of any Stock Appreciation Right, as it shall deem appropriate. A Stock Appreciation Right shall have (i) a grant price not less than Fair Market Value on the date of grant (subject to the requirements of Section 409A of the Code with respect to a Stock Appreciation Right granted in conjunction with, but subsequent to, an Option), and (ii) a term not greater than ten (10) years except in the event of death or disability. Notwithstanding clause (ii) of the preceding sentence, in the event that on the last business day of the term of a Stock Appreciation Right that was granted on or after the Restatement Effective Date (x) the exercise of the Stock Appreciation Right is prohibited by applicable law or (y) Shares may not be purchased or sold by certain employees or directors of the Company due to the black-out period of a Company insider trading policy, the term of the Stock Appreciation Right shall be extended for a period of thirty (30) days following the end of the legal prohibition or black-out period, as applicable.

(e) Without the approval of the Company's stockholders, other than pursuant to Section 12.2, the Committee shall not (i) reduce the grant price of any Stock Appreciation Right after the date of grant (ii) cancel any Stock Appreciation Right when the grant price per Share exceeds the Fair Market Value of the underlying Shares in exchange for cash or another Award (other than in connection with a Change in Control or a Substitute Award)), or (iii) take any other action with respect to a Stock Appreciation Right that would be treated as a repricing under the rules and regulations of the principal securities market on which the Shares are traded.

(f) The Committee may impose such terms and conditions on Stock Appreciation Rights granted in conjunction with any Award (other than an Option) as the Committee shall determine in its sole discretion.

7. RESTRICTED STOCK AND RESTRICTED STOCK UNITS

7.1. *Grants.* Awards of Restricted Stock and of Restricted Stock Units may be issued hereunder to Participants either alone or in addition to other Awards granted under this Plan (a Restricted Stock Award or Restricted Stock Unit Award respectively), and such Restricted Stock Awards and Restricted Stock Unit Awards shall also be available as a form of payment of Performance Awards and other earned cash-based incentive compensation. A Restricted Stock Award or Restricted Stock Unit Award may be subject to vesting restrictions imposed by the Committee covering a period of time specified by the Committee. The Committee has absolute discretion to determine whether any consideration (other than services) is to be received by the Company or any Subsidiary as a condition precedent to the issuance of Restricted Stock or Restricted Stock Units.

7.2. *Award Agreements.* The terms of any Restricted Stock Award or Restricted Stock Unit Award granted under this Plan shall be set forth in a written Award Agreement which shall contain provisions determined by the Committee and

not inconsistent with this Plan. The terms of Restricted Stock Awards and Restricted Stock Unit Awards need not be the same with respect to each Participant

7.3. Rights of Holders of Restricted Stock and Restricted Stock Units. Unless otherwise provided in the Award Agreement, beginning on the date of grant of the Restricted Stock Award and subject to execution of the Award Agreement, the Participant shall become a stockholder of the Company with respect to all Shares subject to the Award Agreement and shall have all of the rights of a stockholder, including the right to vote such Shares and the

Table of Contents

right to receive distributions made with respect to such Shares. A Participant receiving a Restricted Stock Unit Award shall not possess voting rights with respect to such Award. Except as otherwise provided in an Award Agreement any Shares or any other property (other than cash) distributed as a dividend or otherwise with respect to any Restricted Stock Award or Restricted Stock Unit Award as to which the restrictions have not yet lapsed shall be subject to the same restrictions as such Restricted Stock Award or Restricted Stock Unit Award. Notwithstanding the provisions of this Section, cash dividends, stock and any other property (other than cash) distributed as a dividend or otherwise with respect to any Restricted Stock Award or Restricted Stock Unit Award that vests based on achievement of performance goals shall either (i) not be paid or credited or (ii) be accumulated, shall be subject to restrictions and risk of forfeiture to the same extent as the Restricted Stock or Restricted Stock Units with respect to which such cash, stock or other property has been distributed and shall be paid at the time such restrictions and risk of forfeiture lapse.

7.4 Issuance of Shares. Any Restricted Stock granted under this Plan may be evidenced in such manner as the Board may deem appropriate, including book-entry registration or issuance of a stock certificate or certificates, which certificate or certificates shall be held by the Company or its designee. Such certificate or certificates shall be registered in the name of the Participant and shall bear an appropriate legend referring to the restrictions applicable to such Restricted Stock.

8. OTHER SHARE-BASED AWARDS

8.1. Grants. Other Awards of Shares and other Awards that are valued in whole or in part by reference to, or are otherwise based on, Shares or other property (Other Share-Based Awards), including deferred stock units, may be granted hereunder to Participants either alone or in addition to other Awards granted under this Plan. Other Share-Based Awards shall also be available as a form of payment of other Awards granted under this Plan and other earned cash-based compensation. Other Share-Based Awards may be subject to vesting restrictions imposed by the Committee covering a period of time specified by the Committee. The Committee has absolute discretion to determine whether any consideration (other than services) is to be received by the Company or any Subsidiary as a condition precedent to the issuance of Other Share-Based Awards.

8.2. Award Agreements. The terms of Other Share-Based Awards granted under this Plan shall be set forth in a written Award Agreement which shall contain provisions determined by the Committee and not inconsistent with this Plan. The terms of such Awards need not be the same with respect to each Participant. Notwithstanding the provisions of this Section, Dividend Equivalents and any property (other than cash) distributed as a dividend or otherwise with respect to the number of Shares covered by a Other Share-Based Award that vests based on achievement of performance goals shall be subject to restrictions and risk of forfeiture to the same extent as the Shares covered by a Other Share-Based Award with respect to which such cash, Shares or other property has been distributed.

8.3. Payment. Except as may be provided in an Award Agreement, Other Share-Based Awards may be paid in cash, Shares, other property, or any combination thereof, in the sole discretion of the Committee. Other Share-Based Awards may be paid in a lump sum or in installments or, in accordance with procedures established by the Committee, on a deferred basis subject to the requirements of Section 409A of the Code.

9. PERFORMANCE AWARDS

9.1. Grants. Performance Awards in the form of Performance Cash, Performance Shares or Performance Units, as determined by the Committee in its sole discretion, may be granted hereunder to Participants, for no consideration or for such minimum consideration as may be required by applicable law, either alone or in addition to other Awards granted under this Plan. The performance goals to be achieved for each Performance Period shall be conclusively determined by the Committee and may be based upon the criteria set forth in Section 10.2.

9.2. *Award Agreements.* The terms of any Performance Award granted under this Plan shall be set forth in a written Award Agreement which shall contain provisions determined by the Committee and not inconsistent with this Plan. If a Performance Award will have Dividend Equivalents, provision for such shall be contained in the applicable Award Agreement. The terms of Performance Awards need not be the same with respect to each Participant.

A-7

Table of Contents

9.3. *Terms and Conditions.* The performance criteria to be achieved during any Performance Period and the length of the Performance Period shall be determined by the Committee prior to the grant of each Performance Award. The amount of the Award to be distributed shall be conclusively determined by the Committee.

9.4. *Payment.* Except as provided in Article 11 or as may be provided in an Award Agreement, Performance Awards will be distributed only after the end of the relevant Performance Period. Performance Awards may be paid in cash, Shares, other property, or any combination thereof, in the sole discretion of the Committee. Performance Awards may be paid in a lump sum or in installments following the close of the Performance Period or, in accordance with procedures established by the Committee, on a deferred basis subject to the requirements of Section 409A of the Code.

10. CODE SECTION 162(m) PROVISIONS

10.1. *Covered Employees.* Notwithstanding any other provision of this Plan, if the Committee determines at the time a Restricted Stock Award, a Restricted Stock Unit Award, a Performance Award or an Other Share-Based Award is granted to a Participant who is, or is likely to be, as of the end of the tax year in which the Company would claim a tax deduction in connection with such Award, a Covered Employee, then the Committee may provide that this Article 10 is applicable to such Award.

10.2. *Performance Criteria.* If the Committee determines that a Restricted Stock Award, a Restricted Stock Unit, a Performance Award or an Other Share-Based Award is intended to be subject to this Article 10, the lapsing of restrictions thereon and the distribution of cash, Shares or other property pursuant thereto, as applicable, shall be subject to the achievement of one or more objective performance goals established by the Committee, which shall be based on the attainment of specified levels of one or any combination of the following: net sales; revenue; revenue growth or product revenue growth; operating income (before or after taxes); pre- or after-tax income (before or after allocation of corporate overhead and bonus); earnings per share; net income (before or after taxes); return on equity; total shareholder return; return on assets or net assets; appreciation in and/or maintenance of the price of the Shares or any other securities of the Company, including its publicly-traded securities or a tracking security whether actual or constructed; appreciation in and/or maintenance of the Company's market capitalization; market share; gross profits; earnings (including earnings before taxes, earnings before interest and taxes or earnings before interest, taxes, depreciation and amortization); economic value-added models or equivalent metrics; comparisons with various stock market indices; reductions in costs; cash flow or cash flow per share (before or after dividends); return on capital (including return on total capital or return on invested capital); cash flow return on investment; improvement in or attainment of expense levels or working capital levels; operating margins, gross margins or cash margin; cash levels at specified points in time, including year-end cash; debt reductions; stockholder equity; research and development achievements; manufacturing achievements (including obtaining particular yields from manufacturing runs and other measurable objectives related to process development activities); regulatory achievements (including submitting or filing applications or other documents with regulatory authorities, having any such applications or other documents accepted for review by the applicable regulatory authority or receiving approval of any such applications or other documents); passing pre-approval inspections (whether of the Company or the Company's third-party manufacturer) and validation of manufacturing processes (whether the Company's or the Company's third-party manufacturer's); clinical achievements (including initiating clinical or bioequivalence studies; initiating enrollment, completing enrollment or enrolling particular numbers of subjects in clinical or bioequivalence studies; dosing the first patient in a clinical or bioequivalence study; completing phases of a clinical or bioequivalence study (including the treatment phase); or announcing or presenting preliminary or final data from clinical or bioequivalence studies; in each case, whether on particular timelines or generally); strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property; establishing relationships with commercial entities with respect to the marketing, distribution and sale of the Company's products (including with group purchasing organizations, distributors and other vendors); supply chain achievements (including establishing relationships with manufacturers or

suppliers of active pharmaceutical ingredients and other component materials and manufacturers of the Company's products); co-development, co-marketing, profit sharing, joint venture or other similar arrangements); financing and other capital raising transactions (including sales of the Company's equity or debt securities; factoring transactions; sales or licenses of the Company's assets, including its intellectual property, whether in a particular jurisdiction or

Table of Contents

territory or globally; or through partnering transactions); and implementation, completion or attainment of measurable objectives with respect to research, development, manufacturing, commercialization, products or projects, production volume levels, acquisitions and divestitures and recruiting and maintaining personnel. Such performance goals also may be based solely by reference to the Company's performance or the performance of a Subsidiary, division, business segment or business unit of the Company, or based upon the relative performance of other companies or upon comparisons of any of the indicators of performance relative to other companies. The Committee may also exclude charges related to an event or occurrence which the Committee determines should appropriately be excluded, including (a) restructurings, discontinued operations, extraordinary items, and other unusual or non-recurring charges, (b) an event either not directly related to the operations of the Company or not within the reasonable control of the Company's management, or (c) the cumulative effects of tax or accounting changes in accordance with U.S. generally accepted accounting principles. Such performance goals shall be set by the Committee within the time period prescribed by, and shall otherwise comply with the requirements of, Section 162(m) of the Code, and the regulations thereunder.

10.3. *Adjustments.* Notwithstanding any provision of this Plan (other than Article 11), with respect to any Restricted Stock Award, Restricted Stock Unit Award, Performance Award or Other Share-Based Award that is subject to this Section 10, the Committee may adjust downwards, but not upwards, the amount payable pursuant to such Award, and the Committee may not waive the achievement of the applicable performance goals, except in the case of the death or disability of the Participant or as otherwise determined by the Committee in special circumstances.

10.4. *Restrictions.* The Committee shall have the power to impose such other restrictions on Awards subject to this Article as it may deem necessary or appropriate to ensure that such Awards satisfy all requirements for performance-based compensation within the meaning of Section 162(m) of the Code.

10.5. *Limitations on Grants to Individual Participants.* Subject to adjustment as provided in Section 12.2, no Participant may (i) be granted Options or Stock Appreciation Rights during any 12-month period with respect to more than 2,000,000 Shares and (ii) earn more than 1,500,000 Shares under Restricted Stock Awards, Restricted Stock Unit Awards, Performance Awards and/or Other Share-Based Awards in any 12-month period that are intended to comply with the performance-based exception under Code Section 162(m) and are denominated in Shares (collectively, the Limitations), except that in connection with a Participant's initial commencement of Services with the Company or any Subsidiary, the Limitations shall be increased to 2,500,000 Shares and 2,000,000 Shares, respectively, in the year in which such Services commence. In addition to the foregoing, the maximum dollar value that may be earned by any Participant in any 12-month period with respect to Performance Awards that are intended to comply with the performance-based exception under Code Section 162(m) and are denominated in cash is \$2,000,000. If an Award is cancelled, the cancelled Award shall continue to be counted toward the applicable Limitations.

11. CHANGE IN CONTROL PROVISIONS

11.1. *Impact on Certain Awards.* Award Agreements may provide that in the event of a Change in Control (as defined in Section 11.3): (i) Options and Stock Appreciation Rights outstanding as of the date of the Change in Control shall be cancelled and terminated without payment if the Fair Market Value of one Share as of the date of the Change in Control is less than the per Share Option exercise price or Stock Appreciation Right grant price, and (ii) all Performance Awards shall be considered to be earned and payable (either in full or pro rata based on the portion of Performance Period completed as of the date of the Change in Control), and any limitations or other restrictions shall lapse and such Performance Awards shall be immediately settled or distributed.

11.2. *Assumption or Substitution of Certain Awards.* (a) Unless otherwise provided in an Award Agreement, in the event of a Change in Control in which the successor company (or a subsidiary or parent thereof) assumes or substitutes for an Option, Stock Appreciation Right, Restricted Stock Award, Restricted Stock Unit Award or Other

Share-Based Award, if a Participant's employment with such successor company (or a subsidiary or parent thereof) terminates within 24 months following such Change in Control (or such other period set forth in the Award Agreement, including prior thereto if applicable) and under the circumstances specified in the Award Agreement:
(i) Options and Stock Appreciation Rights outstanding as of the date of such termination of employment will

A-9

Table of Contents

immediately vest, become fully exercisable, and may thereafter be exercised for 24 months (or the period of time set forth in the Award Agreement), (ii) restrictions, limitations and other conditions applicable to Restricted Stock and Restricted Stock Units shall lapse and the Restricted Stock and Restricted Stock Units shall become free of all restrictions and limitations and become fully vested, and (iii) the restrictions, limitations and other conditions applicable to any Other Share-Based Awards or any other Awards shall lapse, and such Other Share-Based Awards or such other Awards shall become free of all restrictions, limitations or conditions and become fully vested and transferable to the full extent of the original grant. For the purposes of this Section 11.2, an Option, Stock Appreciation Right, Restricted Stock Award, Restricted Stock Unit Award or Other Share-Based Award shall be considered assumed or substituted for if following the Change in Control the Award (or its substitute) confers the right to purchase or receive, for each Share subject to the Option, Stock Appreciation Right, Restricted Stock Award, Restricted Stock Unit Award or Other Share-Based Award immediately prior to the Change in Control, the consideration (whether stock, cash or other securities or property) received in the transaction constituting a Change in Control by holders of Shares for each Share held on the effective date of such transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares); provided, however, that if such consideration received in the transaction constituting a Change in Control is not solely common stock of the successor company (or a subsidiary or parent thereof), the Committee may, with the consent of the successor company (or a subsidiary or parent thereof), provide that the consideration to be received upon the exercise or vesting of an Option, Stock Appreciation Right, Restricted Stock Award, Restricted Stock Unit Award or Other Share-Based Award, for each Share subject thereto, will be solely common stock of the successor company (or a subsidiary or parent thereof) substantially equal in fair market value to the per share consideration received by holders of Shares in the transaction constituting a Change in Control. The determination of such substantial equality of value of consideration shall be made by the Committee in its sole discretion and its determination shall be conclusive and binding.

(b) Unless otherwise provided in an Award Agreement, in the event of a Change in Control to the extent the successor company (or a subsidiary or parent thereof) does not assume or substitute for an Option, Stock Appreciation Right, Restricted Stock Award, Restricted Stock Unit Award or Other Share-Based Award: (i) those Options and Stock Appreciation Rights outstanding as of the date of the Change in Control that are not assumed or substituted for shall immediately vest and become fully exercisable, (ii) restrictions and other limitations on Restricted Stock and Restricted Stock Units that are not assumed or substituted for shall lapse and the Restricted Stock and Restricted Stock Units shall become free of all restrictions and limitations and become fully vested, and (iii) the restrictions, other limitations and other conditions applicable to any Other Share-Based Awards or any other Awards that are not assumed or substituted for shall lapse, and such Other Share-Based Awards or such other Awards shall become free of all restrictions, limitations or conditions and become fully vested and transferable to the full extent of the original grant.

(c) The Committee, in its discretion, may determine that, upon the occurrence of a Change in Control, each Option and Stock Appreciation Right outstanding shall terminate within a specified number of days after notice to the Participant, and/or that each Participant shall receive, with respect to each Share subject to such Option or Stock Appreciation Right, an amount equal to the excess of the Fair Market Value of such Share immediately prior to the occurrence of such Change in Control over the exercise price per share of such Option and/or Stock Appreciation Right; such amount to be payable in cash, in one or more kinds of stock or property (including the stock or property, if any, payable in the transaction) or in a combination thereof, as the Committee, in its discretion, shall determine.

11.3. *Change in Control.* For purposes of this Plan, unless otherwise provided in an Award Agreement, Change in Control means the occurrence of any one of the following events after the date of approval of this Plan by the Board:

(a) Over a period of 36 consecutive months or less, there is a change in the composition of the Board such that a majority of the Board members (rounded up to the next whole number, if a fraction) ceases, by reason of one or more

proxy contests for the election of Board members, to be composed of individuals who either (i) have been Board members continuously since the beginning of that period, or (ii) have been elected or nominated for election as Board members during such period by at least a majority of the Board members described in the preceding clause (i) who were still in office at the time that election or nomination was approved by the Board; provided, however, that no individual initially elected or nominated as a director of the

A-10

Table of Contents

Company as a result of an actual or threatened election contest with respect to directors or as a result of any other actual or threatened solicitation of proxies by or on behalf of any person other than the Board shall be deemed to satisfy the criteria described in the preceding clause (ii);

(b) Any person or group of persons (within the meaning of Section 13(d)(3) of the Exchange Act) directly or indirectly acquires beneficial ownership (determined pursuant to Rule 13d-3 promulgated under the Exchange Act) of securities possessing more than 50% of the total combined voting power of the Company's outstanding securities pursuant to a tender or exchange offer made directly to the Company's stockholders that the Board does not recommend such stockholders accept, other than (i) the Company or any corporation, partnership, limited liability company, business trust, or other entity controlling, controlled by or under common control with the Company (each, an Affiliate), (ii) an employee benefit plan of the Company or an Affiliate, (iii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or an Affiliate, or (iv) an underwriter temporarily holding securities pursuant to an offering of such securities;

(c) A merger or consolidation of the Company with or into another person or the sale, transfer, or other disposition of all or substantially all of the Company's assets to one or more other persons in a single transaction or series of related transactions that requires the approval of the Company's stockholders, whether for such transaction or the issuance of securities in such transaction (a Business Combination), unless in connection with such Business Combination securities possessing more than 50% of the total combined voting power of the survivor's or acquiror's outstanding securities (or the securities of any parent thereof) are held by a person or persons who held securities possessing more than 50% of the total combined voting power of the Company's outstanding securities (Company Voting Securities) immediately prior to such Business Combination and such voting power among the holders thereof is in substantially the same proportion as the voting power of such Company Voting Securities among the holders thereof immediately prior to such Business Combination;

(d) The stockholders of the Company approve a plan of complete liquidation or dissolution of the Company or the consummation of a sale of all or substantially all of the Company's assets; or

(e) A majority of the Board votes in favor of a decision that a Change in Control has occurred.

Notwithstanding the foregoing, a Change in Control shall not be deemed to occur solely because any person acquires beneficial ownership of more than 50% of the Company Voting Securities as a result of the acquisition of Company Voting Securities by the Company which reduces the number of Company Voting Securities outstanding; provided, that if after such acquisition by the Company such person becomes the beneficial owner of additional Company Voting Securities that increases the percentage of outstanding Company Voting Securities beneficially owned by such person, a Change in Control shall then occur.

12. GENERALLY APPLICABLE PROVISIONS

12.1. *Amendment and Termination of this Plan.* The Board may, from time to time, alter, amend, suspend or terminate this Plan as it shall deem advisable, subject to any requirement for stockholder approval imposed by applicable law, including the rules and regulations of the principal securities market on which the Shares are traded; provided that the Board may not amend this Plan in any manner that would result in noncompliance with Rule 16b-3 of the Exchange Act; and further provided that the Board may not, without the approval of the Company's stockholders, amend this Plan to (a) increase the number of Shares that may be the subject of Awards under this Plan (except for adjustments pursuant to Section 12.2), (b) expand the types of awards available under this Plan, (c) materially expand the class of persons eligible to participate in this Plan, (d) amend any provision of Section 5.3 or Section 6.2(e), (e) increase the maximum permissible term of any Option specified by Section 5.4 or the maximum permissible term of a Stock Appreciation Right specified by Section 6.2(d), or (f) increase the Limitations. The Board

may not, without the approval of the Company's stockholders, take any other action with respect to an Option or Stock Appreciation Right that would be treated as a repricing under the rules and regulations of the principal securities exchange on which the Shares are traded, including a reduction of the exercise price of an Option or the grant price of a Stock Appreciation Right or the exchange of an Option or Stock Appreciation Right for cash or another Award. In addition, no amendments to, or termination of, this Plan shall impair the rights of a Participant in any material respect under any Award previously granted without such Participant's consent.

A-11

Table of Contents

12.2. *Adjustments.* In the event of any merger, reorganization, consolidation, recapitalization, dividend or distribution (whether in cash, shares or other property, other than a regular cash dividend), stock split, reverse stock split, spin-off or similar transaction or other change in corporate structure affecting the Shares or the value thereof, such adjustments and other substitutions shall be made to this Plan and to Awards as the Committee deems equitable or appropriate taking into consideration the accounting and tax consequences, including such adjustments in the aggregate number, class and kind of securities that may be delivered under this Plan, the Limitations, the maximum number of Shares that may be issued as incentive stock options and, in the aggregate or to any one Participant, in the number, class, kind and option or exercise price of securities subject to outstanding Awards granted under this Plan (including, if the Committee deems appropriate, the substitution of similar options to purchase the shares of, or other awards denominated in the shares of, another company) as the Committee may determine to be appropriate; provided, however, that the number of Shares subject to any Award shall always be a whole number.

12.3. *Transferability of Awards.* Except as provided below, no Award and no Shares that have not been issued or as to which any applicable restriction, performance or deferral period has not lapsed, may be sold, assigned, transferred, pledged or otherwise encumbered, other than by will or the laws of descent and distribution, and such Award may be exercised during the life of the Participant only by the Participant or the Participant's guardian or legal representative. To the extent and under such terms and conditions as determined by the Committee, a Participant may assign or transfer an Award without consideration (each transferee thereof, a Permitted Assignee) to (i) the Participant's spouse, children or grandchildren (including any adopted and step children or grandchildren), parents, grandparents or siblings, (ii) to a trust for the benefit of one or more of the Participant or the persons referred to in clause (i), (iii) to a partnership, limited liability company or corporation in which the Participant or the persons referred to in clause (i) are the only partners, members or shareholders or (iv) for charitable donations; provided that such Permitted Assignee shall be bound by and subject to all of the terms and conditions of this Plan and the Award Agreement relating to the transferred Award and shall execute an agreement satisfactory to the Company evidencing such obligations; and provided further that such Participant shall remain bound by the terms and conditions of this Plan. The Company shall cooperate with any Permitted Assignee and the Company's transfer agent in effectuating any transfer permitted under this Section.

12.4. *Termination of Employment.* The Committee shall determine and set forth in each Award Agreement whether any Awards granted in such Award Agreement will continue to be exercisable, and the terms of such exercise, on and after the date that a Participant ceases to be employed by or to provide services to the Company or any Subsidiary (including as a Director), whether by reason of death, disability, voluntary or involuntary termination of employment or services, or otherwise. The date of termination of a Participant's employment or services will be determined by the Committee, which determination will be final.

12.5. *Deferral; Dividend Equivalents.* The Committee shall be authorized to establish procedures pursuant to which the payment of any Award may be deferred. Subject to the provisions of this Plan and any Award Agreement, the recipient of an Award other than an Option or Stock Appreciation Right may, if so determined by the Committee, be entitled to receive, currently or on a deferred basis, cash, stock or other property dividends, or cash payments in amounts equivalent to cash, stock or other property dividends on Shares (Dividend Equivalents) with respect to the number of Shares covered by the Award, as determined by the Committee, in its sole discretion. The Committee may provide that such amounts and Dividend Equivalents (if any) shall be deemed to have been reinvested in additional Shares or otherwise reinvested and may provide that such amounts and Dividend Equivalents are subject to the same vesting or performance conditions as the underlying Award. Notwithstanding the foregoing, Dividend Equivalents credited in connection with an Award that vests based on the achievement of performance goals shall be subject to restrictions and risk of forfeiture to the same extent as the Award with respect to which such Dividend Equivalents have been credited.

13. MISCELLANEOUS

13.1. *Award Agreements.* Each Award Agreement shall either be (a) in writing in a form approved by the Committee and executed by the Company by an officer duly authorized to act on its behalf, or (b) an electronic notice in a form approved by the Committee and recorded by the Company (or its designee) in an electronic recordkeeping system used for the purpose of tracking one or more types of Awards as the Committee may provide; in each case and if required by the Committee, the Award Agreement shall be executed or otherwise electronically

A-12

Table of Contents

accepted by the recipient of the Award in such form and manner as the Committee may require. The Committee may authorize any officer of the Company to execute any or all Award Agreements on behalf of the Company. The Award Agreement shall set forth the material terms and conditions of the Award as established by the Committee consistent with the provisions of this Plan.

13.2. *Tax Withholding.* The Company shall have the right to make all payments or distributions pursuant to this Plan to a Participant (or a Permitted Assignee thereof) (any such person, a Payee) net of any applicable federal, state and local taxes required to be paid or withheld as a result of (a) the grant of any Award, (b) the exercise of an Option or Stock Appreciation Right, (c) the delivery of Shares or cash, (d) the lapse of any restrictions in connection with any Award or (e) any other event occurring pursuant to this Plan. The Company or any Subsidiary shall have the right to withhold from wages or other amounts otherwise payable to such Payee such withholding taxes as may be required by law, or to otherwise require the Payee to pay such withholding taxes. If the Payee shall fail to make such tax payments as are required, the Company or its Subsidiaries shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to such Payee or to take such other action as may be necessary to satisfy such withholding obligations. The Committee shall be authorized to establish procedures for election by Participants to satisfy such obligation for the payment of such taxes by tendering previously acquired Shares (either actually or by attestation, valued at their then Fair Market Value), or by directing the Company to retain Shares (up to the Participant's minimum required tax withholding rate or such other rate that will not cause an adverse accounting consequence or cost) otherwise deliverable in connection with the Award.

13.3. *Right of Discharge Reserved; Claims to Awards.* Nothing in this Plan nor the grant of an Award hereunder shall confer upon any Employee or Director the right to continue in the employment or service of the Company or any Subsidiary or affect any right that the Company or any Subsidiary may have to terminate the employment or service of (or to demote or to exclude from future Awards under this Plan) any such Employee or Director at any time for any reason. Except as specifically provided by the Committee, the Company shall not be liable for the loss of existing or potential profit from an Award granted in the event of termination of an employment or other relationship. No Employee or Participant shall have any claim to be granted any Award under this Plan, and there is no obligation for uniformity of treatment of Employees or Participants under this Plan.

13.4. *Substitute Awards.* Notwithstanding any other provision of this Plan, the terms of Substitute Awards may vary from the terms set forth in this Plan to the extent the Committee deems appropriate to conform, in whole or in part, to the provisions of the awards in substitution for which they are granted.

13.5. *Cancellation of Award; Forfeiture of Gain.* Notwithstanding anything to the contrary contained herein, an Award Agreement may provide that the Award shall be canceled if the Participant, without the consent of the Company, while employed by the Company or any Subsidiary or after termination of such employment or service, violates a non-competition, non-solicitation or non-disclosure covenant or agreement or otherwise engages in activity that is in conflict with or adverse to the interest of the Company or any Subsidiary (including conduct contributing to any financial restatements or financial irregularities), as determined by the Committee in its sole discretion. The Committee may provide in an Award Agreement that if within the time period specified in the Agreement the Participant establishes a relationship with a competitor or engages in an activity referred to in the preceding sentence, the Participant will forfeit any gain realized on the vesting or exercise of the Award and must repay such gain to the Company.

13.6. *Stop Transfer Orders.* All certificates for Shares delivered under this Plan pursuant to any Award shall be subject to such stop-transfer orders and other restrictions as the Committee may deem advisable under the rules, regulations and other requirements of the Securities and Exchange Commission, any stock exchange upon which the Shares are then listed, and any applicable federal or state securities law, and the Committee may cause a legend or legends to be put on any such certificates to make appropriate reference to such restrictions.

13.7. *Nature of Payments.* All Awards made pursuant to this Plan are in consideration of services performed or to be performed for the Company or any Subsidiary, division or business unit of the Company. Any income or gain realized pursuant to Awards under this Plan constitute a special incentive payment to the Participant and shall not be taken into account, to the extent permissible under applicable law, as compensation for purposes of any of the

A-13

Table of Contents

employee benefit plans of the Company or any Subsidiary except as may be determined by the Committee or by the Board or board of directors of the applicable Subsidiary.

13.8. *Other Plans.* Nothing contained in this Plan shall prevent the Board from adopting other or additional compensation arrangements, subject to stockholder approval if such approval is required; and such arrangements may be either generally applicable or applicable only in specific cases.

13.9. *Severability.* If any provision of this Plan shall be held unlawful or otherwise invalid or unenforceable in whole or in part by a court of competent jurisdiction, such provision shall (a) be deemed limited to the extent that such court of competent jurisdiction deems it lawful, valid and/or enforceable and as so limited shall remain in full force and effect, and (b) not affect any other provision of this Plan or part thereof, each of which shall remain in full force and effect. If the making of any payment or the provision of any other benefit required under this Plan shall be held unlawful or otherwise invalid or unenforceable by a court of competent jurisdiction, such unlawfulness, invalidity or unenforceability shall not prevent any other payment or benefit from being made or provided under this Plan, and if the making of any payment in full or the provision of any other benefit required under this Plan in full would be unlawful or otherwise invalid or unenforceable, then such unlawfulness, invalidity or unenforceability shall not prevent such payment or benefit from being made or provided in part, to the extent that it would not be unlawful, invalid or unenforceable, and the maximum payment or benefit that would not be unlawful, invalid or unenforceable shall be made or provided under this Plan.

13.10. *Construction.* As used in this Plan, the words include and including, and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words without limitation.

13.11. *Unfunded Status of this Plan.* This Plan is intended to constitute an unfunded plan for incentive compensation. With respect to any payments not yet made to a Participant by the Company, nothing contained herein shall give any such Participant any rights that are greater than those of a general creditor of the Company. In its sole discretion, the Committee may authorize the creation of trusts or other arrangements to meet the obligations created under this Plan to deliver the Shares or payments in lieu of or with respect to Awards hereunder; provided, however, that the existence of such trusts or other arrangements is consistent with the unfunded status of this Plan.

13.12. *Governing Law.* This Plan and all determinations made and actions taken thereunder, to the extent not otherwise governed by the Code or the laws of the United States, shall be governed by the laws of the State of California, without reference to principles of conflict of laws, and construed accordingly.

13.13. *Effective Date of Plan; Termination of Plan.* The original 2008 Omnibus Incentive Plan was duly approved by the stockholders of the Company at the Company's 2008 annual meeting of stockholders on May 28, 2008 and became effective on that date (the Original Plan). This Plan shall be effective on the date of the approval of this Plan by the holders of a sufficient number of the shares entitled to vote at a duly constituted meeting of the stockholders of the Company (the Restatement Effective Date), and on such date this Plan shall amend and restate in its entirety the Original Plan. This Plan shall be null and void and of no effect if the foregoing condition is not fulfilled and in such event any Award granted pursuant to this Plan shall, notwithstanding any of the preceding provisions of this Plan, be null and void and of no effect and the Original Plan shall continue in effect without regard to this Plan. Awards may be granted under this Plan at any time and from time to time on or prior to the tenth anniversary of the Restatement Effective Date, on which date this Plan will expire except as to Awards then outstanding under this Plan. Such outstanding Awards shall remain in effect until they have been exercised or terminated, or have expired.

13.14. *Foreign Employees.* Awards may be granted to Participants who are foreign nationals or employed outside the United States, or both, on such terms and conditions different from those applicable to Awards to Employees employed in the United States as may, in the judgment of the Committee, be necessary or desirable in order to

recognize differences in local law or tax policy. The Committee also may impose conditions on the exercise or vesting of Awards in order to minimize the Company's obligation with respect to tax equalization for Employees on assignments outside their home country.

13.15. *Compliance with Section 409A of the Code.* This Plan is intended to comply and shall be administered in a manner that is intended to comply with Section 409A of the Code and shall be construed and interpreted in accordance with such intent. To the extent that an Award or the payment, settlement or deferral thereof is subject

A-14

Table of Contents

to Section 409A of the Code, the Award shall be granted, paid, settled or deferred in a manner that will comply with Section 409A of the Code, including regulations or other guidance issued with respect thereto, except as otherwise determined by the Committee. Any provision of this Plan that would cause the grant of an Award or the payment, settlement or deferral thereof to fail to satisfy Section 409A of the Code shall be amended to comply with Section 409A of the Code on a timely basis, which may be made on a retroactive basis, in accordance with regulations and other guidance issued under Section 409A of the Code.

13.16. *Captions.* The captions in this Plan are for convenience of reference only, and are not intended to narrow, limit or affect the substance or interpretation of the provisions contained herein.

13.17 *No Registration Rights; No Right to Settle in Cash.* The Company has no obligation to register with any governmental body or organization (including, without limitation, the U.S. Securities and Exchange Commission (SEC)) any of (a) the offer or issuance of any Award, (b) any Shares issuable upon the exercise of any Award, or (c) the sale of any Shares issued upon exercise of any Award, regardless of whether the Company in fact undertakes to register any of the foregoing. In particular, in the event that any of (x) any offer or issuance of any Award, (y) any Shares issuable upon exercise of any Award, or (z) the sale of any Shares issued upon exercise of any Award are not registered with any governmental body or organization (including, without limitation, the SEC), the Company will not under any circumstance be required to settle its obligations, if any, under this Plan in cash.

Eric K. Rowinsky	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lewis J. Shuster	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Ratification of the appointment of J.H. Cohn LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2011.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Approval of the ADVENTRX Pharmaceuticals, Inc. Amended and Restated 2008 Omnibus Incentive Plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Approval of the issuance of up to 13,478,050 shares of our common stock in lieu of cash for milestone payments pursuant to our merger agreement with SynthRx, Inc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Signature of Stockholder	Date:	Signature of Stockholder	Date:
--------------------------	-------	--------------------------	-------

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

n

n

Table of Contents

n

**ADVENTRX PHARMACEUTICALS, INC.
PROXY SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
FOR THE ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD JUNE 15, 2011**

The undersigned stockholder of ADVENTRX Pharmaceuticals, Inc. (the Company) hereby appoints Brian M. Culley and Patrick L. Keran, or any one of them with full power of substitution, as proxies of the undersigned to attend the Annual Meeting of Stockholders of the Company to be held on June 15, 2011 at 9:00 a.m. Pacific time, and any adjournment or postponement thereof, hereby revoking any proxies heretofore given, and to vote all shares of common stock of the Company held or owned by the undersigned as specified on the reverse side of this proxy card, and in their discretion upon any other matter that may properly come before the meeting and any adjournment or postponement thereof.

See reverse for voting instructions.

n

14475 n