Dicerna Pharmaceuticals Inc
Form DEF 14A
April 30, 2014
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the

Securities Exchange Act of 1934

(Amendment No.)

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

Check the appropriate box:

¨ Preliminary Proxy Statement

¨ **Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**

x Definitive Proxy Statement

¨ Definitive Additional Materials

¨ Soliciting Material Pursuant to §240.14a-12

Dicerna Pharmaceuticals, Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

x No fee required.

¨ Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

¨ Fee paid previously with preliminary materials.

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

(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

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NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD ON JUNE 18, 2014

AT 9 A.M. EASTERN TIME

Dear Stockholder:

You are cordially invited to attend the 2014 Annual Meeting of Stockholders of Dicerna Pharmaceuticals, Inc., a Delaware corporation. The 2014 Annual Meeting of Stockholders will be held on June 18, 2014, at 9 a.m., Eastern Time, at Babson College Conference Center, 231 Forest Street, Wellesley, MA 02457, for the following purposes:

1. To elect seven directors with terms to expire at the 2015 Annual Meeting of Stockholders.

2. To ratify the selection of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2014.

3. To conduct any other business properly brought before the 2014 Annual Meeting of Stockholders.

These items of business are more fully described in the proxy statement accompanying this Notice of Annual Meeting of Stockholders. The record date for the 2014 Annual Meeting of Stockholders is April 25, 2014. Only stockholders of record at the close of business on that date are entitled to notice of, and to vote at, the 2014 Annual Meeting of Stockholders or any adjournment thereof.

Your vote is very important. Whether or not you attend the 2014 Annual Meeting of Stockholders in person, it is important that your shares be represented. You may vote your proxy on the Internet, by phone or by mail in accordance with the instructions in the Notice of Availability of Proxy Materials.

On behalf of the board of directors, thank you for your participation in this important annual process.

By Order of the Board of Directors

/s/ Douglas M. Fambrough, III, Ph.D.
Douglas M. Fambrough, III, Ph.D.

President and Chief Executive Officer

Watertown, Massachusetts

April 30, 2014

You are cordially invited to attend the annual meeting in person. Whether or not you expect to attend the annual meeting, please vote on the Internet, by phone or by mail as instructed in the notice of availability of proxy materials, as promptly as possible in order to ensure your representation at the meeting. Even if you have voted by proxy, you may still vote in person if you attend the annual meeting. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the annual meeting, you must obtain a proxy issued in your name from that record holder.

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NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD ON JUNE 18, 2014

AT 9 A.M. EASTERN TIME

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING PROCEDURES

WHY AM I RECEIVING THESE MATERIALS?

We sent you a Notice of Availability of Proxy Materials (notice) because the board of directors of Dicerna Pharmaceuticals, Inc. is soliciting your proxy to vote at our 2014 Annual Meeting of Stockholders to be held on June 18, 2014 at 9 a.m., Eastern Time, at Babson College Conference Center, 231 Forest Street, Wellesley, MA 02457 (annual meeting). We invite you to attend the annual meeting to vote on the proposals described in this proxy statement. However, you do not need to attend the meeting to vote your shares. Instead, you may vote by proxy over the Internet or by phone by following the instructions provided in the notice or, if you request printed copies of the proxy materials by mail, you may vote by mail.

The notice is being sent or made available on or about April 30, 2014 to all stockholders of record entitled to vote at the annual meeting.

As used in this proxy statement, Dicerna, the Company, we or us refer to Dicerna Pharmaceuticals, Inc., a Delawar corporation and, where appropriate, its consolidated subsidiary.

WHO CAN VOTE AT THE ANNUAL MEETING?

Only stockholders of record at the close of business on April 25, 2014 will be entitled to vote at the annual meeting. On this record date, there were 17,761,437 shares of common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If, on April 25, 2014, your shares were registered directly in your name with our transfer agent, American Stock Transfer & Trust Company, LLC, then you are a stockholder of record. The notice will be sent to you by mail directly by us. As a stockholder of record, you may vote in person at the annual meeting or vote by proxy. Whether or not you plan to attend the annual meeting, we urge you to vote on the Internet or by phone as instructed in the notice or by proxy by mail by requesting a paper copy of the proxy materials as instructed in the notice to ensure your vote is counted.

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

If, on April 25, 2014, your shares were held in an account at a brokerage firm, bank or other agent, then you are the beneficial owner of shares held in street name and the notice is being forwarded to you by that organization. The organization holding your account is considered the stockholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your broker, bank or other agent

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on how to vote the shares in your account. Your brokerage firm, bank or other agent will not be able to vote in the election of directors unless they have your voting instructions, so it is very important that you indicate your voting instructions to the institution holding your shares.

You are also invited to attend the annual meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the annual meeting unless you request and obtain a valid proxy from your broker, bank or other agent.

WHAT AM I VOTING ON?

There are two matters scheduled for a vote:

Proposal 1: To elect seven directors with terms to expire at the 2015 Annual Meeting of Stockholders.

Proposal 2: To ratify the selection of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2014.

HOW ARE PROXY MATERIALS DISTRIBUTED?

Under rules adopted by the Securities and Exchange Commission (SEC), we are sending the notice to our stockholders of record and beneficial owners as of April 25, 2014. Stockholders will have the ability to access the proxy materials, including this proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, on the Internet at www.proxyvote.com or to request a printed or electronic set of the proxy materials at no charge. Instructions on how to access the proxy materials over the Internet and how to request a printed copy may be found on the notice.

In addition, any stockholder may request to receive proxy materials in printed form by mail or electronically by email on an ongoing basis. Choosing to receive future proxy materials by email will save us the cost of printing and mailing documents to stockholders and will reduce the impact of annual meetings on the environment. A stockholder who chooses to receive future proxy materials by email will receive an email prior to next year s annual meeting with instructions containing a link to those materials and a link to the proxy voting website. A stockholder s election to receive proxy materials by email will remain in effect until the stockholder terminates it.

HOW DO I VOTE?

You may vote For or Against or abstain from voting with respect to each nominee to the board of directors. For Proposal 2, you may vote For or Against or abstain from voting. The procedures for voting are:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record as of April 25, 2014, you may vote in person at the annual meeting, vote by proxy over the Internet or by phone by following the instructions provided in the notice or, if you request printed copies of the proxy materials by mail, you may vote by mail. If your proxy is properly executed in time to be voted at the annual meeting, the shares represented by the proxy will be voted in accordance with the instructions you provide. Whether or not you plan to attend the annual meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the annual meeting and vote in person if you have already voted by proxy.

1. To vote in person, come to the annual meeting and we will give you a ballot when you arrive.

2. To vote on the Internet, go to www.proxyvote.com to complete an electronic proxy card. You will be asked to provide the 12-digit control number from the notice and follow the instructions. Your vote must be received by 11:59 p.m., Eastern Time, on June 17, 2014 to be counted.

3. To vote by phone, request a paper or email copy of the proxy materials by following the instructions on the notice and call the number provided with the proxy materials to transmit your voting instructions. Your vote must be received by 11:59 p.m., Eastern Time, on June 17, 2014 to be counted.

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4. To vote by mail, request a paper copy of the proxy materials by following the instructions on the notice and complete, sign and date the proxy card enclosed with the paper copy of the proxy materials and return it promptly in the envelope provided. If you return your signed proxy card to us before the annual meeting, we will vote your shares as you direct.

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

If you are a beneficial owner of shares registered in the name of your broker, bank or other agent, you should have received a notice and voting instructions from that organization rather than from us. Simply follow the instructions to ensure that your vote is counted. To vote in person at the annual meeting, you must obtain a valid proxy from your broker, bank or other agent. Follow the instructions from your broker, bank or other agent included with the notice, or contact your broker, bank or other agent.

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

HOW MANY VOTES DO I HAVE?

On each matter to be voted upon, you have one vote for each share of common stock you owned as of April 25, 2014.

WHAT IS THE QUORUM REQUIREMENT?

A quorum of stockholders is necessary to take any action at the meeting, other than to adjourn the meeting. The presence, in person or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote will constitute a quorum. On April 25, 2014, there were 17,761,437 shares outstanding and entitled to vote.

Your shares will be counted towards the quorum only if you submit a valid proxy or vote in person at the annual meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the chairman of the annual meeting or a majority of the votes present at the annual meeting may adjourn the annual meeting to another date.

WHAT IF I RETURN A PROXY CARD BUT DO NOT MAKE SPECIFIC CHOICES?

If you are a stockholder of record and you return a proxy card without marking any voting selections, your shares will be voted:

1. Proposal 1: For election of all seven nominees for director.

2. Proposal 2: For the ratification of the audit committee s selection of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2014.

If any other matter is properly presented at the meeting, your proxy (one of the individuals named on your proxy card) will vote your shares using his best judgment.

If you are a beneficial owner of shares registered in the name of your broker, bank or other agent, your shares are held by your broker, bank or other agent as your nominee, or in street name, and you will need to obtain a proxy form from the organization that holds your shares and follow the instructions included on that form regarding how to instruct the organization to vote your shares. If you do not give instructions to your broker, bank or other agent, it can vote your shares with respect to discretionary items but not with respect to non-discretionary items. Discretionary items are proposals considered routine under the rules of various

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national securities exchanges, and, in the absence of your voting instructions, your broker, bank or other agent may vote your shares held in street name on such proposals. Non-discretionary items are proposals considered non-routine under the rules of various national securities exchanges, and, in the absence of your voting instructions, your broker, bank or other agent may not vote your shares held in street name on such proposals and the shares will be treated as broker non-votes. Proposal 1 is a matter considered non-routine under the applicable rules. If you do not give your broker specific instructions, the broker may not vote your shares on Proposal 1 and therefore there may be broker non-votes on Proposal 1. Proposal 2 involves a matter we believe to be routine and thus if you do not give instructions to your broker, the broker may vote your shares in its discretion on Proposal 2 and therefore no broker non-votes are expected to exist in connection with Proposal 2.

How are votes counted?

Votes will be counted by the inspector of election appointed for the annual meeting, who will count, with respect to Proposals 1 and 2, For votes, Against votes and abstentions, and with respect to Proposal 1, broker non-votes.

Who will serve as inspector of elections?

A representative of Broadridge Financial Solutions, Inc. will serve as the inspector of elections.

How many votes are needed to approve each proposal?

For Proposal 1 electing seven members of the board of directors, each director must receive a For vote from a majority of the votes cast at the annual meeting and entitled to vote on the election of directors. A majority of votes cast shall mean that the number of shares voted For a director s election exceeds fifty percent of the number of votes cast with respect to that director s election, with votes cast including votes Against in each case and excluding abstentions and broker non-votes with respect to that director s election.

For Proposal 2 ratifying the audit committee s selection of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2014, the proposal must receive a For vote from the majority of the shares present and properly cast either in person or by proxy, with votes cast including votes Against and excluding abstentions.

Who is paying for this proxy solicitation?

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

What does it mean if I receive more than one notice?

If you receive more than one notice, your shares are registered in more than one name or are registered in different accounts. Please vote by proxy according to each notice to ensure that all of your shares are voted.

Can I change my vote after submitting my proxy?

Yes, you can revoke your proxy at any time before the final vote at the annual meeting. If you are a stockholder of record, you may revoke your proxy in any one of three ways:

1. A duly executed proxy card with a later date or time than the previously submitted proxy;

2. A written notice that you are revoking your proxy to our Secretary, care of Dicerna Pharmaceuticals, Inc., at 480 Arsenal Street, Building 1, Suite 120, Watertown, Massachusetts 02472; or

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3. A later-dated vote on the Internet or by phone or a ballot cast in person at the annual meeting (simply attending the annual meeting will not, by itself, revoke your proxy).

If you are a beneficial owner, you may revoke your proxy by submitting new instructions to your broker, bank or other agent, or if you have received a proxy from your broker, bank or other agent giving you the right to vote your shares at the annual meeting, by attending the meeting and voting in person.

WHEN ARE STOCKHOLDER PROPOSALS DUE FOR NEXT YEAR S ANNUAL MEETING?

Pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended (Exchange Act), some stockholder proposals may be eligible for inclusion in our 2015 proxy statement. Any such proposal must be submitted in writing by December 31, 2014, to our Secretary, care of Dicerna Pharmaceuticals, Inc., at 480 Arsenal Street, Building 1, Suite 120, Watertown, Massachusetts 02472. If we change the date of our 2015 annual meeting by more than thirty days from the date of the previous year s annual meeting, the deadline shall be a reasonable time before we begin to print and send our proxy materials. Stockholders interested in submitting such a proposal are advised to contact knowledgeable counsel with regard to the detailed requirements of the applicable securities laws and our bylaws. The submission of a stockholder proposal does not guarantee that it will be included in our proxy statement.

Our bylaws also establish an advance notice procedure for stockholders who wish to present a proposal before an annual meeting of stockholders but do not intend for the proposal to be included in our proxy statement. Our bylaws provide that if you wish to submit a proposal that is not to be included in next year s proxy statement or nominate a director, a timely written notice of a stockholder proposal must be delivered to, or mailed and received by, our Secretary, care of Dicerna Pharmaceuticals, Inc., at 480 Arsenal Street, Building 1, Suite 120, Watertown, Massachusetts 02472, no earlier than February 18, 2015 and no later than the close of business on March 20, 2015, which notice must contain the information specified in our bylaws. If we change the date of our 2015 Annual Meeting of Stockholders by more than thirty days before, or more than sixty days after, the one-year anniversary of the 2014 Annual Meeting of Stockholders, then the written notice of a stockholder proposal that is not intended to be included in our proxy statement must be delivered, or mailed and received, not later than the ninetieth day prior to our 2015 Annual Meeting of Stockholders or, if later, the tenth day following the day on which certain public disclosure as described in our bylaws of the meeting date is made.

WHAT IS HOUSEHOLDING AND HOW DOES IT AFFECT ME?

We have adopted a procedure approved by the SEC called householding. Under this procedure, stockholders who have the same address may receive only one copy of the notice, unless one or more of these stockholders notifies us that they wish to receive individual copies of the notice and, if requested, other proxy materials. This process potentially means extra convenience for stockholders and cost savings for companies.

If you are a beneficial owner of our common stock, once you receive notice from your broker, bank or other agent that they will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive separate notices or other proxy materials, please notify your broker, bank or other agent, direct your written request to Dicerna Pharmaceuticals, Inc., Secretary, at 480 Arsenal Street, Building 1, Suite 120, Watertown, Massachusetts 02472 or contact our Secretary at (617) 621-8097. Stockholders who currently receive multiple copies of the notice or other proxy materials at their address and would like to request householding of their communications should contact their broker, bank or other agent.

HOW CAN I FIND OUT THE RESULTS OF THE VOTING AT THE ANNUAL MEETING?

Preliminary voting results will be announced at the annual meeting. Final voting results will be published in a Current Report on Form 8-K filed with the SEC within four business days following the annual meeting.

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PROPOSAL 1

ELECTION OF DIRECTORS

Our board of directors currently consists of seven directors. Each of the current seven directors has been nominated for reelection at the annual meeting. Any vacancies on our board of directors resulting from death, resignation, disqualification, removal or other causes, and any newly created directorships resulting from any increase in the number of directors, shall be filled by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the board of directors. Any director elected to fill a vacancy shall hold office for the remainder of the unexpired term in which the vacancy occurred or newly created directorship was created and until such director s successor shall have been elected and qualified.

Directors are elected by a majority of the votes cast at the annual meeting and entitled to vote on the election of directors. A majority of votes cast shall mean that the number of shares voted For a director s election exceeds fifty percent of the number of votes cast with respect to that director s election, with votes cast including votes Against in each case and excluding abstentions and broker non-votes with respect to that director s election. Shares represented by executed proxies will be voted for the election of the seven nominees named below, unless the Against or Abstain voting selection has been marked on the proxy card.

If any nominee becomes unavailable for election as a result of an unexpected occurrence, shares that would otherwise be voted for such nominee will be voted for the election of a substitute nominee proposed by the nominating and corporate governance committee and nominated by the board of directors. Each person nominated for election has agreed to serve if elected. Our management has no reason to believe that any nominee will be unable to serve. If elected at the annual meeting, each of the nominees will serve until the earliest of the 2015 Annual Meeting of Stockholders, his successor is elected and qualified or his death, resignation or removal.

The following is a brief biography of each nominee for director and a discussion of the specific experience, qualifications, attributes or skills for each nominee that led the nominating and corporate governance committee of the board of directors to recommend that person as a nominee for director, as of the date of this proxy statement.

Name	Position	Age
Douglas M. Fambrough, III, Ph.D.	President, Chief Executive Officer and Director	45
Brian K. Halak, Ph.D.	Director	42
Stephen J. Hoffman, M.D., Ph.D.	Director	60
Peter Kolchinsky, Ph.D.	Director	37
Dennis H. Langer, M.D., J.D.	Director	62
David M. Madden	Chairman	51
Vincent J. Miles, Ph.D.	Director	63

Douglas M. Fambrough, III, Ph.D.

Douglas M. Fambrough, III, Ph.D. has served as a member of our board of directors since April 2007 and as our president and chief executive officer since May 2010. From 2000 to May 2010, Dr. Fambrough held various positions at Oxford Bioscience Partners, a life science venture capital firm, most recently as a general partner. During his years at Oxford Bioscience Partners, he specialized in financing innovative life science technology companies, including the Company, Sirna Therapeutics, Inc. (acquired by Merck & Co., Inc.), Solexa, Inc. (acquired by Illumina, Inc.), Solstice Neurosciences (acquired by US WorldMeds, LLC), Xencor, Inc. and Rib-X Pharmaceuticals, and served as a director

of each of these companies. Dr. Fambrough has also served as a Trustee of Boston Biomedical Research Institute, a not-for-profit organization. Before joining Oxford Bioscience Partners, he was a genomic scientist at the Whitehead/MIT Center for Genome Research (now known as the Broad Institute). Dr. Fambrough graduated from Cornell University and obtained his Ph.D. in genetics at the University of California, Berkeley. The nominating and corporate governance committee believes that Dr. Fambrough s experience serving as our president and chief executive officer and a member of our board of

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directors, combined with his experience in the venture capital industry and biotechnology research and development, provide him with the qualifications and skills to serve as a member of our board of directors.

Brian K. Halak, Ph.D.

Brian K. Halak, Ph.D. has served as a member of our board of directors since August 2010. Dr. Halak is currently a partner of Domain Associates, LLC, which he joined in 2001. Prior to joining Domain Associates, LLC, Dr. Halak was an associate with Advanced Technology Ventures. Prior to that, Dr. Halak was a consultant at the Wilkerson Group. Dr. Halak currently serves as a member of the boards of directors of several emerging companies, including Alimera Sciences, Inc. (NASDAQ: ALIM), BioNano Genomics, Inc., Kona Medical, Inc. and Eddingpharm, Inc. He previously served on the boards of directors of Esprit Pharma, Inc. (acquired by Allergan, Inc.), GI Dynamics, Inc. (ASX: GID) and Vanda Pharmaceuticals, Inc. (NASDAQ: VNDA). Dr. Halak received his BSE in bioengineering from the University of Pennsylvania and his Ph.D. in immunology from the Thomas Jefferson University. The nominating and corporate governance committee believes that Dr. Halak s experience in the venture capital industry, particularly with biopharmaceutical companies, and his experience serving on the boards of directors of a number of biopharmaceutical companies provide him with the qualifications and skills to serve as a member of our board of directors.

Stephen J. Hoffman, M.D., Ph.D.

Stephen J. Hoffman, M.D., Ph.D. has been a senior advisor to PDL BioPharma, Inc. since February 2014. Prior to that, he served as a managing director at Skyline Ventures, a venture capital firm, from May 2007 until February 2014. From January 2003 to March 2007, Dr. Hoffman was a general partner at TVM Capital, a venture capital firm. From 1994 to 2002, he served as president, chief executive officer and a member of the board of directors of Allos Therapeutics, Inc., a biopharmaceutical company, where he remained as chairman of the board until it was acquired by Spectrum Pharmaceuticals, Inc. in September 2012. From 1990 to 1994, Dr. Hoffman completed a fellowship in clinical oncology and a residency/fellowship in dermatology, both at the University of Colorado. Dr. Hoffman was the scientific founder of Somatogen Inc., a biotechnology company that was acquired by Baxter International, Inc. in 1998, where he held the position of vice president of science and technology from 1987 until 1990. Dr. Hoffman currently serves on the boards of directors of AcelRx Pharmaceuticals, Inc. (NASDAQ: ACRX) and Genocea Biosciences, Inc. (NASDAQ: GNCA). Previously, Dr. Hoffman also served on the board of directors of Sirtris Pharmaceuticals, Inc., a pharmaceutical company that was acquired by GlaxoSmithKline (NYSE: GSK) in 2008. Dr. Hoffman holds a Ph.D. in bio-organic chemistry from Northwestern University and an M.D. from the University of Colorado School of Medicine. The nominating and corporate governance committee believes that Dr. Hoffman s scientific and business experience, including his diversified background as an executive officer, director and venture capital investor in biopharmaceutical companies, provide him with the qualifications and skills to serve as a member of our board of directors.

Peter Kolchinsky, Ph.D.

Peter Kolchinsky, Ph.D. has served as a member of our board of directors since July 2013. Dr. Kolchinsky is a founding partner and portfolio manager at RA Capital, where he has been since September 2004. He is active in both public and private investments across the pharmaceutical, medical devices, diagnostics and life-science tools industries. Dr. Kolchinsky authored the e-book The Entrepreneur s Guide to a Biotech Startup and serves on the board of directors of the American Fertility Association. Dr. Kolchinsky currently also serves as a member of the boards of directors of CellScape Corporation, Zipline Medical, Inc., Lantos Technologies, Inc., Periphagen, Inc., Calimmune, Inc. and PiloFocus, Inc. In the past, Dr. Kolchinsky served on the Board of Global Science and Technology for the National Academies of Sciences. He received a Ph.D. in virology from Harvard University and a bachelor s degree

from Cornell University. The nominating and corporate governance committee believes that Dr. Kolchinsky s experience as a venture capital investor in and director of a number of healthcare and life sciences companies provides him with the qualifications and skills to serve as a member of our board of directors.

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Dennis H. Langer, M.D., J.D.

Dennis H. Langer, M.D., J.D. has served as a member of our board of directors since November 2007. Since January 2013, Dr. Langer has served as the chairman of the board of directors and chief executive officer of AdvanDx, Inc. Dr. Langer has been a clinical professor in the department of psychiatry at Georgetown University School of Medicine since September 2003. From August 2005 to May 2010, Dr. Langer served as managing partner of Phoenix IP Ventures, LLC. From January 2004 to July 2005, he served as president, North America of Dr. Reddy s Laboratories, Inc. (NYSE: RDY). From September 1994 until January 2004, Dr. Langer held several positions at GlaxoSmithKline plc (NYSE: GSK) and its predecessor, SmithKline Beecham, culminating with senior vice president of research and development. Dr. Langer currently serves on the boards of directors of Myriad Genetics, Inc. (NASDAQ: MYGN), Innocoll, Inc., Sancilio & Company, Inc. and Light Sciences Oncology Inc. Dr. Langer previously served on the boards of directors of Auxilium Pharmaceuticals, Inc. (NASDAQ: AUXL), Cytogen Corporation (acquired by EUSA Pharma, Inc.), Myrexis, Inc., Pharmacopeia, Inc. (acquired by Ligand Pharmaceuticals Incorporated) and Sirna Therapeutics, Inc. (acquired by Merck & Co., Inc.). Dr. Langer received a J.D. (*cum laude*) from Harvard Law School, an M.D. from Georgetown University School of Medicine and a B.A. in biology from Columbia University. The nominating and corporate governance committee believes that Dr. Langer s business and management experience, including senior positions at global pharmaceutical companies and innovative research and development experience at companies such as Eli Lilly & Co. (NYSE: LLY), Abbott Laboratories (NYSE: ABT) and G.D. Searle & Company, as well as his diversified background serving as a director of several pharmaceutical companies provide him with the qualifications and skills to serve as a member of our board of directors.

David M. Madden

David M. Madden has served as a member and the chairman of our board of directors since June 2009. Mr. Madden is a founder and principal of Narrow River Management, LP, an investment management company with a focus on equity investments in the emerging pharmaceutical industry, where he has been since 2004. Mr. Madden has served as chief executive officer and a member of the board of directors of River Vision Development Corporation since 2011. Mr. Madden also serves as a member of the board of directors of the Hospital for Special Surgery. Mr. Madden previously served as interim president and chief executive officer of Adolor Corporation (NASDAQ: ADLR) from August 2005 to December 2006 and the chairman of its board of directors until it was acquired by Cubist Pharmaceuticals, Inc. (NASDAQ: CBST) in December 2011. Mr. Madden was co-chief executive officer of Royalty Pharma AG, a private investment management firm specializing in the acquisition of royalty interests in pharmaceutical products, from October 2000 to 2003, and a member of its board of directors until March 2004. From 1997 to October 2000, he served as a managing member of Pharmaceutical Partners, LLC. From 1992 to 1995, Mr. Madden was president and chief executive officer and a member of the board of directors of Selectide Corporation. Mr. Madden has a B.S. in Electrical Engineering from Union College and an M.B.A. from Columbia University. The nominating and corporate governance committee believes that Mr. Madden s diversified experience in the pharmaceutical, healthcare and financial services industries, particularly his experience of serving as an executive officer and director of several pharmaceutical companies, provide him with the qualifications and skills to serve as a member of our board of directors.

Vincent J. Miles, Ph.D.

Vincent J. Miles, Ph.D. has served as a member of our board of directors since November 2013. Dr. Miles is a partner of Abingworth, a venture capital firm in the life sciences and healthcare sectors. Before joining Abingworth, Dr. Miles was senior vice president, business development, of Alnylam Pharmaceuticals, Inc. (NASDAQ: ALNY) from 2003 to 2007. From 1997 to 2003, Dr. Miles held various positions at Millennium Pharmaceuticals, Inc., including vice president positions in business development, strategic planning and scientific affairs. Prior to that, Dr. Miles served as

the director of the Office of Technology Transfer, Dana Farber Cancer Institute from 1996 to 1997, and vice president of various research and development and business functions at RiboGene, Inc. (a predecessor of Questcor Pharmaceuticals (NASDAQ: QCOR)) from 1992 to 1996

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and at Pharmacia P-L Biochemicals Inc. from 1986 to 1992. Dr. Miles also served on the board of directors of PrimeraDx, Inc. Dr. Miles currently serves on the boards of directors of Hydra Biosciences, Inc., Magellan Diagnostics, Inc. and Chiasma, Inc. Dr. Miles holds a B.Sc. in biochemistry and Ph.D. in biochemical embryology from University College London. The nominating and corporate governance committee believes that Dr. Miles scientific and business experience serving as an executive officer, director and venture capital investor in biopharmaceutical companies provides him with the qualifications and skills to serve as a member of our board of directors.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE ELECTION OF EACH NAMED NOMINEE.

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PROPOSAL 2

RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The audit committee of our board of directors has selected Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2014 and has further directed that management submit the selection of our independent registered public accounting firm for ratification by the stockholders at the annual meeting. Deloitte & Touche LLP has been engaged by us since May 2009 to audit our financial statements since our inception in October 2006. Representatives of Deloitte & Touche LLP are expected to be present at the annual meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Neither our bylaws nor other governing documents or law require stockholder ratification of the selection of Deloitte & Touche LLP as our independent registered public accounting firm. However, the audit committee is submitting the selection of Deloitte & Touche LLP to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection, the audit committee will reconsider whether or not to retain Deloitte & Touche LLP. Even if the selection is ratified, the audit committee, in its discretion, may direct the appointment of a different independent registered public accounting firm at any time during the year if the committee determines that such a change would be in our best interests and our stockholders best interest.

The affirmative vote of the holders of a majority of the shares of our common stock present in person or represented by proxy at the annual meeting and cast on this proposal will be required to ratify the selection of Deloitte & Touche LLP for our fiscal year ending December 31, 2014. Abstentions will not be counted as votes cast on this proposal. No broker non-votes are expected to exist in connection with this proposal.

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

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SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the ownership of our common stock as of April 25, 2014, by: (i) each nominee for director; (ii) each of our named executive officer; (iii) all of our executive officers and directors as a group; and (iv) all those known by us to be beneficial owners of more than five percent of our common stock.

	Beneficial Ownership**	
Beneficial Owner	**Number of Shares**	**Percent of Total**
FMR LLC(1)	2,580,703	14.5%
RA Capital Management, LLC(2)	2,428,571	13.7%
Affiliates of Deerfield Mgmt, L.P.(3)	2,428,569	13.7%
Entities affiliated with Domain Associates(4)	1,786,908	10.1%
Skyline Venture Partners V, L.P.(5)	1,757,203	9.9%
Brookside Capital Management, LLC(6)	1,550,862	8.7%
Abingworth LLP(7)	1,198,027	6.7%
Douglas M. Fambrough, III, Ph.D.(8)	302,159	1.7%
Brian K. Halak(9)	1,786,908	10.1%
Stephen J. Hoffman, M.D., Ph.D.(10)	1,757,203	9.9%
Peter Kolchinsky, Ph.D.(11)	2,428,571	13.7%
Dennis H. Langer, M.D., J.D.(12)	111,371	*
David M. Madden(13)	120,011	*
Vincent J. Miles, Ph.D.(14)	1,198,027	6.7%
James E. Dentzer(15)	11,328	*
Bob D. Brown, Ph.D.(16)	94,220	*
James B. Weissman(17)	64,336	*
All executive officers and directors as a group (11 persons)	7,874,134	44.3%

* Denotes ownership percentage less than one percent.

** This table is based upon information supplied by officers, directors and principal stockholders and Forms 3, Forms 4 and Schedules 13D and 13G filed with the SEC. Unless otherwise indicated in the footnotes to this table, we believe that each of the stockholders named in the table has sole voting and dispositive power with respect to the shares indicated as beneficially owned. Applicable percentages are based on 17,761,437 shares outstanding on April 25, 2014, adjusted as required by rules promulgated by the SEC.

(1) Based solely on the Schedule 13G filed with the SEC on April 10, 2014 by FMR LLC, a Delaware limited liability company, and Edward C. Johnson, III. Fidelity Management & Research Company (Fidelity), 245 Summer Street, Boston, Massachusetts 02210, a wholly-owned subsidiary of FMR LLC and an investment adviser registered under Section 203 of the Investment Advisers Act of 1940, is the beneficial owner of 2,153,031 shares of our common as a result of acting as investment adviser to various investment companies registered under Section 8 of the Investment Company Act of 1940 (collectively, Fidelity Funds). Edward C. Johnson, III and FMR LLC, through his or its control of Fidelity, each has sole power to dispose of the 2,153,031 shares of our common stock owned by the Fidelity Funds. Fidelity SelectCo, LLC (SelectCo), 1225 17th Street, Suite 1100, Denver, Colorado 80202, a wholly-owned subsidiary of FMR LLC, is the beneficial owner of 313,850 shares of our common stock as a result of acting as investment adviser to various investment companies

(collectively, SelectCo Funds). Edward C. Johnson, III and FMR LLC, through his or its control of SelectCo, each has sole power to dispose of the 313,850 shares of our common stock owned by the SelectCo Funds. Members of the family of Edward C. Johnson, III, Chairman of FMR LLC, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders voting agreement,

members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Edward C. Johnson, III, Chairman of FMR LLC, has the sole power to vote or direct the voting of the shares owned directly by the Fidelity Funds, which power resides with the Fidelity Funds Boards of Trustees. Fidelity carries out the voting of the shares under written guidelines established by the Fidelity Funds Boards of Trustees. Fidelity Management Trust Company, 245 Summer Street, Boston, Massachusetts 02210, a wholly-owned subsidiary of FMR LLC and a bank as defined in Section 3(a)(6) of the Exchange Act, is the beneficial owner of 103,022 shares of our common stock as a result of its serving as investment manager of the institutional account(s). Edward C. Johnson, III and FMR LLC, through his or its control of Fidelity Management Trust Company, each has sole dispositive power over 103,022 shares and sole power to vote or to direct the voting of 103,022 shares of our common stock owned by these certain institutional accounts as described above. Pyramis Global Advisors Trust Company (PGATC), 900 Salem Street, Smithfield, Rhode Island 02917, an indirect wholly-owned subsidiary of FMR LLC and a bank as defined in Section 3(a)(6) of the Exchange Act, is the beneficial owner of 10,800 shares of our common stock as a result of its serving as investment manager of institutional accounts owning such shares. Edward C. Johnson, III and FMR LLC, through his or its control of PGATC, each has sole dispositive power over 10,800 shares of our common stock and sole power to vote or to direct the voting of 10,800 shares of our common stock owned by these institutional accounts managed by PGATC as described above.

(2) Based solely on the Schedule 13D filed with the SEC on February 5, 2014 by RA Capital Healthcare Fund, L.P. (RA Fund), RA Capital Management, LLC (RA Capital) and Peter Kolchinsky, Ph.D. RA Fund has the shared voting power and shared dispositive power with respect to 2,256,071 shares of our common stock. RA Capital has the shared voting power and shared dispositive power with respect to 2,428,571 shares of our common stock, including (a) 2,256,071 shares of our common stock held by RA Fund, for which RA Capital serves as the sole general partner, and (b) 172,500 shares of our common stock held in a separately managed account, for which RA Capital serves as investment adviser. Dr. Kolchinsky has the shared voting power and shared dispositive power with respect to 2,428,571 shares of our common stock reported for RA Capital, for which Dr. Kolchinsky serves as the manager. Each of RA Fund, RA Capital and Dr. Kolchinsky disclaims beneficial ownership for the shares, except to the extent of its or his pecuniary interest therein. The address of the principal place of business of RA Fund, RA Capital and Peter Kolchinsky, Ph.D. is 20 Park Plaza, Suite 1200, Boston, MA 02116.

(3) Based solely on the Schedule 13G filed with the SEC on February 12, 2014 by Deerfield Special Situations Fund, L.P., Deerfield Special Situations International Master Fund, L.P., Deerfield Private Design Fund II, L.P. and Deerfield Private Design International II, L.P. (collectively, the Deerfield Funds), Deerfield Management Company, L.P., Deerfield Mgmt, L.P. and James E. Flynn. Deerfield Special Situations Fund, L.P. holds 334,071 shares of our common stock, Deerfield Special Situations International Master Fund, L.P. holds 273,071 shares of our common stock, Deerfield Private Design Fund II, L.P. holds 848,785 shares of our common stock and Deerfield Private Design International II, L.P. holds 972,642 shares of our common stock. Each of the Deerfield Funds has the shared voting power and shared dispositive power with respect to the shares of our common stock held by it. Each of Deerfield Mgmt, L.P., Deerfield Management Company, L.P. and James E. Flynn has the shared voting power and shared dispositive power with respect to the aggregate of 2,428,569 shares of our common stock held by the Deerfield Funds. The address of the principal place of business of the Deerfield Funds, Deerfield Management Company, L.P., Deerfield Mgmt, L.P. and James E. Flynn is 780 Third Avenue, 37th Floor, New York, NY 10017.

(4) Consists of (a) 1,752,707 shares of our common stock held by Domain Partners VIII, L.P. (Domain Partners), (b) 21,041 shares of our common stock issuable upon exercise of a common stock warrant held by Domain Partners, (c) 13,004 shares of our common stock held by DP VIII Associates, L.P. (DP Associates), and (d) 156 shares of our common stock issuable upon exercise of a common stock warrant held by DP Associates. James C. Blair, Brian H. Dovey, Jesse I. Treu, Kathleen K. Schoemaker, Brian K. Halak, a member of our board of directors, and Nicole Vitullo, the managing members of One Palmer Square Associates VIII, L.L.C., the general partner of Domain Partners and DP Associates, share the power to vote or dispose of the shares held by of

Domain Partners and DP Associates and therefore each of the foregoing

managing members may be deemed to have voting and dispositive power with respect to such shares. Each of the foregoing managing members disclaims beneficial ownership of such shares except to the extent of his or her pecuniary interest therein, if any. The address of the principal place of business of Domain Partners and DP Associates is One Palmer Square, Suite 515, Princeton, NJ 08542.

(5) Based solely on the Schedule 13D filed with the SEC on February 14, 2014 by Skyline Venture Partners V, L.P., a Delaware limited partnership (SVP), Skyline Venture Management V, LLC, a California limited liability company (SVM), John G. Freund, M.D., Yasunori Kaneko, M.D. and Stephen Hoffman, M.D., Ph.D. SVP holds 1,734,751 shares of our common stock and common stock warrants to purchase 22,452 shares of our common stock. John G. Freund, M.D. and Yasunori Kaneko, M.D. are Managing Directors of SVM, the general partner of SVP, and may be deemed to share voting and dispositive power over the shares held by SVP. Stephen Hoffman, M.D., Ph.D., a member of our board of directors, is a member of SVM and may be deemed to share voting and dispositive power over the shares held by SVP. Each of Drs. Freund, Kaneko and Hoffman disclaims beneficial ownership of such shares, except to the extent of his pecuniary interest therein. The address of the principal place of business of SVP, SVM and Drs. Freund, Kaneko and Hoffman is 525 University Avenue, Suite 520, Palo Alto, CA 94301.

(6) Based solely on the Form 3 filed with the SEC on February 4, 2014, the Schedule 13G filed with the SEC on February 10, 2014 and the Form 4 filed with the SEC on April 11, 2014 by the following (collectively, Brookside Entities): (a) Brookside Capital Partners Fund, L.P., a Delaware limited partnership (BCPF), whose sole general partner is Brookside Capital Investors, L.P., a Delaware limited partnership (BCI), whose sole general partner is Brookside Capital Management, LLC, a Delaware limited liability company (BCM), and (b) Brookside Capital Trading Fund, L.P., a Delaware limited partnership (BCTF), whose sole general partner is Brookside Capital Investors II, L.P., a Delaware limited partnership (BCI II), whose sole general partner is BCM. Based solely on the Form 3 filed with the SEC on February 4, 2014 and the Schedule 13G filed with the SEC on February 10, 2014, BCPF had the sole voting power and sole dispositive power with respect to 1,000,000 shares of our common stock and BCTF had the sole voting power and sole dispositive power with respect to 1,337,000 shares of our common stock. Based solely on the Form 4 filed with the SEC on April 11, 2014, as of March 18, 2014, BCPF has the sole voting power and sole dispositive power with respect to 1,000,000 shares of our common stock and BCTF has the sole voting power and sole dispositive power with respect to 550,862 shares of our common stock. BCM, BCI and BCI II may each be deemed to share voting and dispositive powers with respect to the shares of our common stock held by each of BCPF and BCTF. Each of BCM, BCI and BCI II disclaims beneficial ownership of such shares, except to the extent of its pecuniary interest therein. The address of the principal place of business of the Brookside Entities is John Hancock Tower, 200 Clarendon Street, Boston, MA 02116.

(7) Based solely on the Schedule 13D filed with the SEC on February 14, 2014 by Abingworth LLP, a limited liability partnership organized under the laws of England, and Abingworth Bioventures V, L.P., a limited partnership organized under the laws of England (ABV). As of February 4, 2014, Abingworth LLP, as the investment manager of ABV, may be deemed to beneficially own an aggregate of 1,198,027 shares of our common stock, consisting of (a) 1,182,196 shares of our common stock held by ABV, (b) 532 shares of our common stock issuable upon exercise of a common stock warrant held by ABV and (c) 15,299 shares of our common stock issuable upon exercise of a common warrant stock held by ABV. ABV and Abingworth LLP have the shared voting power and dispositive power with respect to the 1,182,196 shares of our common stock held by ABV and the 15,831 shares of our common stock issuable upon exercise of the warrants held by ABV. The address of the principal place of business of Abingworth LLP and ABV is c/o Abingworth LLP, Princes House, 38 Jermyn Street, London, England SW1Y 6DN.

(8) Consists of (a) 17,300 shares of our common stock and (b) 284,859 shares of our common stock issuable upon exercise of stock options exercisable within 60 days of April 25, 2014.

(9) Consists of shares of our common stock held and issuable upon exercise of warrants held by Domain Partners and DP Associates as described in footnote (4) above. Dr. Halak is a managing member of One Palmer Square

Associates VII, L.L.C., the general partner of Domain Partners and DP Associates, and may be deemed to share voting and dispositive power over the shares held by Domain Partners and DP Associates. Dr. Halak disclaims beneficial ownership of such shares held by Domain Partners and DP Associates, except to the extent of his pecuniary interest therein.

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(10) Consists of shares of our common stock held and issuable upon exercise of warrants held by SVP as described in footnote (5) above. Dr. Hoffman is a member of SVM, the general partner of SVP, and may be deemed to share voting and dispositive power over the shares held by SVP. Dr. Hoffman disclaims beneficial ownership of such shares held by SVP, except to the extent of his pecuniary interest therein.

(11) Consists of shares of our common stock beneficially owned by RA Capital as described in footnote (2) above. Dr. Kolchinsky serves as the manager of RA Capital, the sole general partner of RA Fund, and may be deemed to beneficially own the shares beneficially owned by RA Capital. Dr. Kolchinsky disclaims beneficial ownership for the shares beneficially owned by RA Capital, except to the extent of his pecuniary interest therein.

(12) Consists of (a) 95,194 shares of common stock held by Langer Family Holdings, LLLP, (b) 360 shares of common stock issuable upon exercise of stock options exercisable within 60 days of April 25, 2014 held by Langer Family Holdings, LLLP, (c) 8,873 shares of common stock held by Dennis H. Langer, M.D., J.D., and (d) 6,944 shares of common stock issuable upon stock options exercisable within 60 days of April 25, 2014 held by Dennis H. Langer, M.D., J.D. Dennis H. Langer, M.D., J.D. is a manager of Langer Family Investments, LLC, which is the general partner of Langer Family Holdings, LLLP. Dr. Langer disclaims beneficial ownership of the shares and options owned by Langer Family Holdings, LLLP.

(13) Consists of (a) 29,902 shares of common stock outstanding as of April 25, 2014 held by David M. Madden, (b) 6,166 shares of common stock held by David M. Madden that will become vested within 60 days of April 25, 2014, (c) 76,443 shares of common stock held by David M. Madden that remain unvested and subject to the repurchase rights of the Company 60 days after April 25, 2014, and (d) 7,500 shares of common stock owned by Madden 2002 Trust. David M. Madden disclaims beneficial ownership of the shares owned by Madden 2002 Trust.

(14) Consists of shares of our common stock owned by ABV as described in footnote (7) above. Dr. Miles is a partner of Abingworth Management Inc., a wholly-owned subsidiary of Abingworth LLP. Dr. Miles disclaims beneficial ownership of the shares owned by ABV, except to the extent of his pecuniary interest therein.

(15) Consists of 11,328 shares of common stock issuable upon exercise of options exercisable within 60 days of April 25, 2014.

(16) Consists of (a) 19,339 shares of common stock and (b) 74,881 shares of common stock issuable upon exercise of options exercisable within 60 days of April 25, 2014.

(17) Consists of (a) 13,116 shares of common stock and (b) 51,220 shares of common stock issuable upon exercise of options exercisable within 60 days of April 25, 2014.

Section 16(A) Beneficial Ownership Reporting Compliance

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

To our knowledge, based solely on our review of Forms 3, 4 and 5, and any amendments thereto, furnished to us or written representations that no Form 5 was required, we believe that during the fiscal year ended December 31, 2013, all filing requirements applicable to our executive officers and directors under the Exchange Act were met in a timely manner, except that (i) each of Douglas M. Fambrough, III, Ph.D., David M. Madden and James B. Weissman filed a late Form 4 on February 20, 2014 reporting the purchase by each of them of shares of our common stock in the initial public offering of our common stock closed on February 4, 2014 (initial public offering), (ii) the Form 3 and Form 4 filed by Dennis H. Langer, M.D., J.D. with the SEC on January 29, 2014 and February 4, 2014, respectively, inadvertently reported 5,000 fewer shares of Series A preferred stock previously held by Langer Family Holdings, LLLP and converted into shares of common stock on a one-for-one basis immediately prior to the initial public offering, which has been corrected in a Form 4/A filed with the SEC on April 21, 2014, (iii) Peter Kolchinsky, Ph.D.

filed a late Form 4 on April 21, 2014 reporting the grant of a stock option by the Company to him on April 16, 2014, and (iv) the Brookside Entities filed a late Form 4 on April 11, 2014 reporting the sales of certain shares of our common stock in March 2014.

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CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Policies and Procedures for Related Party Transactions

We have adopted a written related party transactions policy, which has become effective immediately prior to the completion of the initial public offering, and sets forth the policies and procedures for the review and approval or ratification of related party transactions. The policy covers, with certain exceptions set forth in Item 404 of Regulation S-K promulgated under the Exchange Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, where the amount involved exceeds $120,000 and a related party had, has or will have a direct or indirect material interest, including indebtedness, guarantees of indebtedness and employment by us of a related party.

A related party transaction reviewed under the policy will be considered approved or ratified if it is authorized by the audit committee of our board of directors or the chairperson of the audit committee in accordance with the standards set forth in the policy after full disclosure of the related party s interests in the transaction. As appropriate for the circumstances, the audit committee or the chairperson of the audit committee, as applicable, shall review and consider:

- the related party s interest in the transaction;
- the approximate dollar value of the amount involved in the related party transaction;
- the approximate dollar value of the amount of the related party s interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in our ordinary course of business;
- whether the transaction with the related party is proposed to be, or was, entered into on terms no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose and the potential benefits of the related party transaction to us;
- required public disclosure, if any; and
- any other information regarding the related party transaction in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

Certain Related Party Transactions

We describe below transactions and series of similar transactions since January 1, 2013, to which we were a party or will be a party, in which (i) the amounts involved exceeded or will exceed $120,000 and (ii) any of our directors,

executive officers, holders of more than five percent of our capital stock or any member of their immediate family had or will have a direct or indirect material interest, other than compensation arrangements with directors and executive officers, which are described where required in the sections titled Director Compensation and Executive Compensation, respectively, in this proxy statement.

Participation in the initial public offering

Certain holders of more than five percent of our capital stock and their affiliated entities purchased shares of our common stock in the initial public offering from the underwriters as summarized in the following table. The underwriters received the same underwriting discount from the sale of the shares of our common stock to these holders as they did from other shares of our common stock sold to the public in the initial public offering.

Participants	Number of Shares of Common Stock Purchased	Aggregate Purchase Price ($)
RA Capital Management, LLC[1]	1,000,000	15,000,000
Affiliates of Deerfield Mgmt, L.P.[2]	1,000,000	15,000,000
Brookside Capital Management, LLC	1,000,000	15,000,000
Skyline Venture Partners V, L.P.[3]	200,000	3,000,000
Abingworth Bioventures V, L.P.[4]	100,000	1,500,000

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(1) Consists of (a) 827,500 shares of our common stock purchased by RA Fund, for which RA Capital Management, LLC serves as the sole general partner, and (ii) 172,500 shares of our common stock held in a separately managed account, for which RA Capital Management, LLC serves as investment adviser. Peter Kolchinsky, Ph.D., a member of our board of directors, serves as the manager of RA Capital Management, LLC.

(2) Consists of (a) 138,000 shares of our common stock purchased by Deerfield Special Situations Fund, L.P., (b) 112,000 shares of our common stock purchased by Deerfield Special Situations International Master Fund, L.P., (c) 349,500 shares of our common stock purchased by Deerfield Private Design Fund II, L.P. and (d) 400,500 shares of our common stock purchased by Deerfield Private Design International II, L.P.

(3) Skyline Venture Management V, LLC is the general partner of Skyline Venture Partners V, L.P. Stephen Hoffman, M.D., Ph.D., a member of our board of directors, is a member of Skyline Venture Management V, LLC.

(4) Abingworth LLP is the investment manager of Abingworth Bioventures V, L.P. Vincent J. Miles, Ph.D., a member of our board of directors, is a partner of Abingworth Management Inc., a wholly-owned subsidiary of Abingworth LLP.

Issuance of convertible promissory notes and warrants in 2013

In June 2013, we issued convertible promissory notes in an aggregate principal amount of $3.0 million. Each convertible promissory note bore a simple interest rate of seven percent per annum. The aggregate principal amount of the convertible promissory notes converted into an aggregate of 428,526 shares of our Series C preferred stock on July 30, 2013. We paid the accrued interest through July 30, 2013 in cash. We issued seven warrants to purchase our Series C preferred stock to the purchasers of the convertible promissory notes in connection with the issuance thereof for an aggregate warrant purchase price of $300. The following table sets forth the loan amounts provided by our directors, executive officers and the then holders of more than five percent of our capital stock, or an affiliate or immediate family member thereof, and the number of shares of our Series C preferred stock issuable upon exercise of the warrants held by such persons. Immediately prior to the closing of the initial public offering, all of the shares of Series C preferred stock were converted into shares of our common stock on a one-for-one basis, and the warrants became exercisable to purchase shares of common stock.

Name	Loan Amount	Number of Shares of Series C Preferred Stock Issuable upon Exercise of Warrant
Skyline Venture Partners V, L.P.	$ 759,409.05	21,697
Entities affiliated with Domain Associates(1)	$ 741,908.80	21,197
Entities affiliated with Oxford Biosciences Partners V, L.P.(2)	$ 715,597.43	20,445
Abingworth Bioventures V, LP	$ 535,481.45	15,299
S.R. One, Limited	$ 247,303.27	7,065

(1) Consists of (a) a loan amount of $736,444.35 provided by Domain Partners VIII, L.P., (b) a loan amount of $5,464.45 provided by DP VIII Associates, L.P., (c) 21,041 shares of our Series C preferred stock issuable upon exercise of the warrant held by Domain Partners VIII, L.P. and (d) 156 shares of our Series C preferred stock

issuable upon exercise of the warrant held by DP VIII Associates, L.P.

(2) Consists of (a) a loan amount of $699,827.01 provided by Oxford Bioscience Partners V, L.P., (b) a loan amount of $15,770.42 provided by mRNA Fund V L.P., (c) 19,995 shares of our Series C preferred stock issuable upon exercise of the warrant held by Oxford Bioscience Partners V, L.P. and (d) 450 shares of our Series C preferred stock issuable upon exercise of the warrant held by mRNA Fund V L.P.

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Issuance of Series C preferred stock

In July 2013, we issued and sold an aggregate of 8,571,417 shares of our Series C preferred stock at a purchase price of $7.00 per share, for an aggregate purchase price of approximately $60.0 million in cash and pursuant to the conversion of previously outstanding convertible promissory notes. The following table sets forth the number of shares of Series C preferred stock issued to our directors, executive officers and the then holders of more than five percent of our capital stock, or an affiliate or immediate family member thereof.

Name	Number of Shares of Series C Preferred Stock	Aggregate Purchase Price
RA Capital Healthcare Fund, LP	1,428,571	$ 9,999,997.00
Affiliates of Deerfield Mgmt, L.P.(1)	1,428,569	$ 9,999,983.00
Entities affiliated with Domain Associates(2)	1,285,712	$ 8,999,990.80
Skyline Venture Partners V, L.P.	1,043,429	$ 7,304,003.05
Brookside Capital Partners Fund LP	1,000,000	$ 7,000,000.00
Abingworth Bioventures V, LP	735,751	$ 5,150,259.45
S.R. One, Limited	678,151	$ 4,747,057.27
Entities affiliated with Oxford Biosciences Partners V, L.P.(3)	285,712	$ 1,999,992.43
Dennis H. Langer, M.D., J.D.(4)	71,428	$ 499,996.00

(1) Consists of (a) 499,285 shares purchased by Deerfield Private Design Fund II, L.P., (b) 572,142 shares purchased by Deerfield Private Design International II, L.P., (c) 161,071 shares purchased by Deerfield Special Situations Fund International Master Fund, L.P. and (d) 196,071 shares purchased by Deerfield Special Situations Fund, L.P.

(2) Consists of (a) 1,276,243 shares purchased by Domain Partners VIII, L.P. and (b) 9,469 shares purchased by DP VIII Associates, L.P.

(3) Consists of (a) 279,417 shares purchased by Oxford Bioscience Partners V, L.P. and (b) 6,295 shares purchased by mRNA Fund V L.P.

(4) Purchased by Langer Family Holdings, LLLP. Dennis H. Langer, M.D., J.D. is a manager of Langer Family Investments, LLC, which is the general partner of Langer Family Holdings, LLLP. Dr. Langer disclaims beneficial ownership of the shares owned by Langer Family Holdings, LLLP.

Registration Rights Agreement

In July 2013, we entered into an amended and restated registration rights agreement that provides holders of our preferred stock, including holders of five percent or more of our capital stock and entities affiliated with certain of our directors, with certain registration rights, including the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing under certain circumstances.

Demand registration rights

At any time after the earlier of December 31, 2018 and 180 days after the closing of the initial public offering, the holders of at least a majority of the registrable securities have the right to demand us to file, for no more than two times, a registration statement on Form S-1 to register all or a portion of their registrable securities.

Form S-3 registration rights

After the closing of the initial public offering, the holders of at least 25 percent of the registrable securities have the right to demand us to file an unlimited number of registration statements on Form S-3 provided that the anticipated aggregate offering price of the registrable securities to be sold under the registration statement on Form S-3 exceeds $3.0 million, net of underwriting discounts and commissions.

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Piggyback registration rights

If we propose to register any of our securities under the Securities Act of 1933, as amended (Securities Act), for sale to the public other than certain exceptions, the holders of registrable securities are entitled to receive notice of such registration and to request that we include their registrable securities for resale in the registration statement. The underwriters of the offering will have the right to limit the number of shares to be included in such registration. These holders waived their right to include shares in the registration statement on Form S-1 relating to the initial public offering.

Expenses of registration; indemnification

We are generally required to bear all registration expenses incurred in connection with the demand, Form S-3 and piggyback registrations described above, other than underwriting commissions and discounts. The amended and restated registration rights agreement contain customary indemnification provisions with respect to registration rights.

Termination of registration rights

The demand, Form S-3 and piggyback registration rights described above will terminate five years after the closing of the initial public offering. In addition, the registration rights of a holder of registrable securities will expire if all of the holder s registrable securities may be sold in a three-month period under Rule 144 of the Securities Act.

Stockholders Agreement

In July 2013, we entered into an amended and restated stockholders agreement under which certain holders of our capital stock, including certain holders of five percent or more of our capital stock and entities affiliated with certain of our directors, have agreed to vote in a certain way on certain matters, including with respect to the election of directors. The amended and restated stockholders agreement also provides for rights of first offer in favor of the holders of our preferred stock with respect to certain issuances of our capital stock and securities convertible into or exercisable or exchangeable for our capital stock. The stockholders agreement also provides for rights of first refusal and co-sale with respect to the shares of our common stock held by certain key holders of our common stock. The stockholders agreement terminated upon the closing of the initial public offering.

Director and Executive Officer Agreements and Compensation

We have entered employment-related agreements with our executive officers, agreements with David M. Madden and Dennis H. Langer, M.D., J.D., two of our non-employee directors, and certain transition and separation agreements with James C. Jenson, our former chief executive officer and director. See sections titled Director Compensation and Executive Compensation, respectively, in this proxy statement for more information regarding each of these agreements and compensation of our directors and executive officers.

Indemnification Agreements and Directors and Officers Liability Insurance

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us or will require us to indemnify each director (and in certain cases their affiliated venture capital funds) and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person s services as a director or executive officer.

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BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Meetings of the Board of Directors

The board of directors met nine times and acted by unanimous written consent four times during the fiscal year ended December 31, 2013. Each member of the board of directors, including Jonathan Fleming and James C. Jenson, Ph.D., each of whom resigned as a member of the board of directors in July 2013, Jonathan MacQuitty, Ph.D., who resigned as a member of the board of directors in November 2013, and Vincent J. Miles, Ph.D., who was elected as a member of the board of directors on November 4, 2013, attended at least 75 percent of the aggregate number of meetings of our board of directors and of the committees on which he served, held during the period of the last fiscal year for which he was a director or committee member, respectively.

Corporate Governance Guidelines

The board of directors has documented our governance practices in our corporate governance guidelines to assure that the board will have the necessary authority and practices in place to review and evaluate our business operations as needed and to make decisions that are independent of our management. The guidelines are also intended to align the interests of directors and management with those of our stockholders. The corporate governance guidelines set forth certain practices the board will follow with respect to board composition, board committees, board nomination, director qualifications and evaluation of the board and committees. The corporate governance guidelines and the charter for each committee of the board of directors may be viewed at www.dicerna.com.

Board Leadership Structure

The positions of chief executive officer and chairman of the board of directors are currently held by Douglas M. Fambrough, III, Ph.D. and David M. Madden, respectively. The board of directors believes at this time having a separate chairman provides a more effective channel for the board of directors to express its views on management, by enhancing the board s oversight of, and independence from, management, and allows the chief executive officer to focus more on the strategy and operations of the Company.

Risk Oversight

The board of directors monitors and assesses key business risks directly through deliberations of the board of directors and also by way of delegation of certain risk oversight functions to be performed by committees of the board of directors. The board of directors regularly reviews and assesses, among other matters, the following important areas that present both opportunities and risk to the Company s business:

- review and approval of the Company s annual operating and capital spending plan and review of management s updates as to the progress against plan and any related risks and uncertainties;

- periodic consideration of the balance of risk and opportunities presented by the Company s medium to long-term strategic plan and the potential implications of success and failure in one or more of the Company s key drug development programs;

regular consideration of the risks and uncertainties presented by alternative clinical development strategies;

regular review of the progress and results of the Company s clinical development programs and early research efforts, including, without limitation, the strengths, weaknesses, opportunities and threats for these programs;

periodic review and oversight of any material outstanding litigation or threatened litigation;

review and approval of material collaboration partnerships for the further development and commercial exploitation of the Company s proprietary drug development programs and technologies;

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regular review and approval of the annual corporate goals and an assessment of the Company s level of achievement against these established goals;

regular review of the Company s financial position relative to the risk and opportunities for the Company s business;

periodic review of the Company s intellectual property estate;

review and assessment of succession planning and performance concerns for the Section 16 officers; and

periodic review of the Company s compensation programs.

The discussion above of risk oversight matters reviewed by the board of directors is intended to be illustrative only and not a complete list of all important matters reviewed and considered by the board of directors in providing oversight and direction for the Company s senior management and business.

The risk oversight function of the board of directors is also administered through various board committees. The audit committee oversees the management of financial, accounting, internal controls, disclosure controls and the engagement arrangement and regular oversight of the independent auditors. The audit committee also periodically reviews the Company s investment policy for its cash reserves and fraud monitoring practices and procedures, including the maintenance and monitoring of a whistleblower hotline.

The compensation committee is responsible for the design and oversight of the Company s compensation programs. The compensation committee also regularly reviews and reports to the board of directors on succession planning for the chief executive officer and certain other select senior management positions.

The nominating and corporate governance committee periodically reviews the Company s corporate governance practices, including certain risks that those practices are intended to address. The nominating and corporate governance committee periodically reviews the composition of the board of directors to help ensure that a diversity of skills and experiences is represented by the members of the board of directors taking into account the stage of growth of the Company and its strategic direction.

In carrying out their risk oversight functions, the board of directors and its committees routinely request and review management updates, reports from the independent auditors and legal and regulatory advice from outside experts, as appropriate, to assist in discerning and managing important risks that may be faced by the Company. The board of directors is committed to continuing to ensure and evolve its risk oversight practices as appropriate given the stage of the Company s evolution as a drug development Company and the fast-paced changes in the biopharmaceutical industry.

Independence of the Board of Directors

Under the rules of The NASDAQ Stock Market LLC (NASDAQ), independent directors must comprise a majority of a listed company s board of directors within twelve months from the date of listing. In addition, NASDAQ rules require that, subject to specified exceptions, each member of a listed company s audit, compensation and nominating and corporate governance committees be independent. Audit committee members must also satisfy additional

independence criteria set forth in Rule 10A-3 under the Exchange Act, and in NASDAQ rule 5605(c)(2)(A). Under NASDAQ rules, a director will only qualify as an independent director if, in the opinion of that company s board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

To be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee, accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or be an affiliated person of the listed company or any of its subsidiaries.

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Our board of director has undertaken a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our board of directors has determined that none of Brian K. Halak, Ph.D., Stephen J. Hoffman, M.D., Ph.D., Peter Kolchinsky, Ph.D., Dennis H. Langer, M.D., J.D., David M. Madden or Vincent J. Miles, Ph.D., representing six of our seven directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is independent as that term is defined under NASDAQ rules. Our board of directors has also determined that Dr. Hoffman, Dr. Miles and Mr. Madden, members of our audit committee, Dr. Halak, Dr. Hoffman and Dr. Langer, members of our compensation committee, and Dr. Kolchinsky, Mr. Madden and Dr. Miles, members of our nominating and corporate governance committee, satisfy the independence standards for those committees established by applicable SEC and NASDAQ rules. In making these determinations, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Information Regarding the Committees of the Board of Directors

The board of directors has three regularly constituted committees: an audit committee, a compensation committee and a nominating and corporate governance committee. The following table provides membership and meeting information as of December 31, 2013 for each of the board committees:

Name	Audit	Compensation	Nominating and Corporate Governance
Douglas M. Fambrough, III, Ph.D.			
Brian K. Halak, Ph.D.		X[1]	
Stephen J. Hoffman, M.D., Ph.D.	X[1]	X	
Peter Kolchinsky, Ph.D.			X[1]
Dennis H. Langer, M.D., J.D.		X	
David M. Madden	X		X
Vincent J. Miles, Ph.D.	X		X
Total meetings in 2013	1	1	

(1) Committee chairman

Below is a description of each committee of the board of directors.

Audit Committee

The audit committee of the board of directors oversees our corporate accounting and financial reporting process. For this purpose, the audit committee performs several functions. The responsibilities and duties of the audit committee include, among other things:

evaluating the performance and assessing the qualifications of our independent registered public accounting firm;

determining whether to retain or terminate our independent registered public accounting firm or to appoint and engage a new independent registered public accounting firm;

reviewing and determining the engagement of the independent registered public accounting firm, including the overall scope and plans for their respective audits, the adequacy of staffing and compensation, and negotiating and executing, on behalf of the Company, engagement letters with the independent auditors;

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establishing guidelines and procedures with respect to the rotation of the lead or coordinating audit partners having primary responsibility for the audit and the audit partner responsible for reviewing the audit;

reviewing and approving the retention of our independent registered public accounting firm for any permissible non-audit services and the fees or other compensation for such services;

obtaining and reviewing, at least annually, a formal written statement prepared by the independent registered public accounting firm delineating all relationships between our independent registered public accounting firm and the Company, discussing with our independent registered public accounting firm, and reviewing its independence from management and the Company;

reviewing with our independent registered public accounting firm any management or internal control letter issued or proposed to be issued by our independent registered public accounting firm and management s response;

reviewing with management and our independent registered public accounting firm the scope, adequacy and effectiveness of our financial reporting controls;

reviewing and discussing with management, any internal auditor and our independent registered public accounting firm, as appropriate, the Company s major financial risks, the Company s policies for assessment and management of such risks and the steps to be taken to control such risks;

establishing and maintaining procedures for the receipt, retention and treatment of complaints with respect to accounting, internal accounting controls or auditing matters, including procedures for the confidential and anonymous submission by employees of concerns regarding accounting or auditing matters;

investigating and resolving any disagreements between the Company s management and our independent registered public accounting firm regarding the Company s financial reporting, accounting practices or accounting policies, and reviewing with our independent registered public accounting firm any other problems or difficulties it may have encountered during the course of the audit work;

meeting with senior management and our independent registered public accounting firm in separate executive sessions;

reviewing the financial statements to be included in our quarterly reports on Form 10-Q and our annual reports on Form 10-K;

discussing with management and our independent registered public accounting firm the results of the independent registered public accounting firm s review of our quarterly financial statements and the results of our annual audit and the disclosures contained under the caption Management s Discussion and Analysis of Financial Condition and Results of Operations in our periodic reports;

reviewing and discussing with management and our independent registered public accounting firm any material financial arrangements of the Company which do not appear on the financial statements of the Company and any significant transactions or courses of dealing with parties related to the Company;

reviewing with management and our independent registered public accounting firm significant issues that arise regarding accounting principles and financial statement presentation;

discussing with management and our independent registered public accounting firm any correspondence from or with regulators or governmental agencies, any employee complaints or any published reports that raise material issues regarding the Company s financial statements, financial reporting process or accounting policies;

overseeing the preparation of the audit committee report to be included in the Company s annual reports or proxy statements;

reviewing the Company s investment policy for its cash reserves and fraud monitoring practices and procedures;

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investigating any matter brought to the committee s attention that is within the scope of the committee s charter;

preparing a report for inclusion in the Company s annual reports or proxy statements that describes the committee s composition and responsibilities and how those responsibilities were discharged;

reviewing with management, our independent registered public accounting firm and the Company s counsel any legal or regulatory matters that may have a material impact on the financial statements, related compliance policies;

establishing policies governing, or otherwise determines the appropriateness of, the hiring by the Company of any current or former employee of the independent registered public accounting firm; and

reviewing and approving in advance any proposed related party transactions consistent with the Company related party transactions policy and reports to the board of directors.

The audit committee has the authority to retain special legal, accounting or other consultants to advise the committee as it deems necessary, at the Company s expense, to carry out its duties and to determine the compensation of any such advisors.

The members of the audit committee are Dr. Hoffman, Mr. Madden and Dr. Miles. Dr. Hoffman serves as the chairman of the committee. Our board of directors has determined that each member of the audit committee is independent for audit committee purposes as that term is defined in the applicable rules of the SEC and NASDAQ. Our board of directors has designated Dr. Hoffman as an audit committee financial expert as defined under the applicable rules of the SEC. The audit committee has adopted a written audit committee charter, which is available on our corporate website at www.dicerna.com.

Compensation Committee

The compensation committee of the board of directors reviews the type and level of compensation for directors, officers, employees and compensation consultants of the Company, recommends compensation actions to the board of directors and administers the variable compensation programs to be adopted by the Company. The responsibilities and duties of the compensation committee include, among other things:

reviewing and approving the structure and guidelines for various incentive compensation and benefit plans;

granting equity awards under the various equity incentive compensation and benefit plans;

approving the compensation for the chief executive officer, including, without limitation, annual salary, bonus, equity compensation and other direct or indirect benefits;

approving the compensation levels for each Section 16 officer and to vice-president level employees and above, or to employees that report directly to the chief executive officer, including, without limitation, annual salary, bonus, equity compensation and other direct or indirect benefits;

recommending for approval by the board of directors the compensation levels for the members of the board of directors who are outside directors;

reviewing on a periodic basis the operation of the Company s executive compensation programs to determine whether they remain supportive of the Company s business objectives and are competitive relative to comparable companies, and establishing and periodically reviewing policies for the administration of executive compensation programs;

reviewing the Company s executive compensation arrangements to evaluate whether incentive and other forms of compensation do not encourage inappropriate or excessive risk taking and reviews and discussing, at least annually, the relationship between risk management policies and practices, corporate strategy and the Company s executive compensation arrangements;

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reviewing and discussing with management the Company s major risks relating to the purview of the compensation committee, the Company s policies for assessment and management of such risks and the steps to be taken to control such risks;

preparing and approving the committee report to be included in the Company s proxy statements and annual reports on Form 10-K;

reviewing management recommendations on organization structure and development;

reviewing performance of the Section 16 officers and vice-president level employees that report directly to the chief executive officer; and

investigating any matter brought to the committee s attention within the scope of the committee s duties.

The compensation committee has the sole authority to retain or replace, at the Company s expense, any independent counsel, compensation and benefits consultants and other outside experts or advisors as the committee believes to be necessary or appropriate. The committee may also utilize the services of the Company s regular legal counsel or other advisors to the Company. We did not retain compensation consultants in designing our executive compensation programs for 2012 and 2013. The compensation committee retained an independent compensation consultant in designing our executive compensation programs for 2014.

The members of the compensation committee are Dr. Halak, Dr. Hoffman and Dr. Langer. Dr. Halak serves as the chairman of the committee. Our board of directors has determined that each member of the compensation committee is an independent director for compensation committee purposes as that term is defined in the applicable NASDAQ rules, is a non-employee director within the meaning of Rule 16b-3(d)(3) promulgated under the Exchange Act and is an outside director within the meaning of Section 162(m) of the Internal Revenue Code, as amended. The compensation committee has adopted a written audit committee charter, which is available on our corporate website at www.dicerna.com.

Nominating and Corporate Governance Committee

The responsibilities and duties of the nominating and corporate governance committee include, among other things:

establishing criteria for board membership, including standards for independence, and considering and assessing the independence of the directors;

considering and assessing the independence of the directors;

identifying, evaluating, reviewing and nominating qualified candidates to serve on the board of directors and to each of the board s committees;

evaluating, reviewing and considering the nomination of current directors for re-election to the board of directors and monitor the size of the board;

considering stockholder recommendations for director nominations and other proposals submitted by stockholders;

developing a set of corporate governance principles and policies applicable to the Company, and periodically reviewing and assessing the application of these principles and their application;

reviewing with management and the board of directors the adequacy of and compliance with the Company s code of business conduct and ethics;

reviewing, discussing and assessing, at least annually, the performance of the board of directors;

establishing and overseeing procedures for the receipt, retention and treatment of complaints received by the Company with respect to legal and regulatory compliance (except for compliance relating to accounting, internal accounting controls, auditing matters and financial disclosure and reporting);

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overseeing and reviewing the processes and procedures used by the Company to provide information to the board of directors and its committees;

reviewing and discussing with management the Company s major risks relating to the purview of the nominating and corporate government committee, the Company s policies for assessment and management of such risks and the steps to be taken to control such risks;

providing recommendations to the board of directors to establish such special committees as may be desirable or necessary from time to time in order to address ethical, legal, business or other matters that may arise; and

investigating any matter brought to the committee s attention within the scope of the committee s duties.

The nominating and corporate governance committee may retain, at the Company s expense, any independent counsel, experts or advisors that the committee believes to be desirable and appropriate. The committee may also use the services of the Company s regular legal counsel or other advisors to the Company.

The members of the nominating and corporate governance committee are Dr. Kolchinsky, Mr. Madden and Dr. Miles. Dr. Kolchinsky serves as the chairman of the committee. Our board of directors has determined that each of the committee members is an independent director for nominating and corporate governance committee purposes as that term is defined in the applicable NASDAQ rules. The nominating and corporate governance committee has adopted a written audit committee charter, which is available on our corporate website at www.dicerna.com.

The nominating and corporate governance committee reviews candidates for director nominees in the context of the current composition of the board, our operating requirements and the long-term interests of stockholders. In conducting this assessment, the nominating and corporate governance committee considers diversity, age, skills and such other factors as it deems appropriate given our current needs and those of our board to maintain a balance of knowledge, experience and capability. The committee also periodically reviews the overall effectiveness of the board, including board attendance, level of participation, quality of performance, self-assessment reviews and any relationships or transactions that might impair director independence. In the case of new director candidates, the committee will also determine whether the nominee must be independent for NASDAQ purposes, which determination is based upon applicable NASDAQ listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The committee may also use its network of contacts to compile a list of potential candidates and engage, if it deems appropriate, a professional search firm. The committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the board. The committee meets to discuss and consider such candidates qualifications and then selects a nominee for recommendation to the board by majority vote.

The nominating and corporate governance committee will consider for nomination any qualified director candidates recommended by our stockholders. Any stockholder who wishes to recommend a director candidate is directed to submit in writing the candidate s name, biographical information, relevant qualifications and other information required by our bylaws to our Secretary at our principal executive offices before the deadline set forth in our bylaws. All written submissions received from our stockholders will be reviewed by the nominating and corporate governance committee at the next appropriate meeting. The nominating and corporate governance committee will evaluate any suggested director candidates received from our stockholders in the same manner as recommendations received from management, committee members or members of our board.

Stockholder Communications with the Board of Directors

The board of directors will consider any written or electronic communication from our stockholders to the board, a committee of the board or any individual director. Any stockholder who wishes to communicate to the board of directors, a committee of the board or any individual director should submit written or electronic

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communications to our Secretary at our principal executive offices, which shall include contact information for such stockholder. All communications from stockholders received shall be forwarded by our Secretary to the board of directors, a committee of the board or an individual director, as appropriate, on a periodic basis, but in any event no later than the board of director s next scheduled meeting. The board of directors, a committee of the board, or individual directors, as appropriate, will consider and review carefully any communications from stockholders forwarded by our Secretary.

Code of Business Conduct and Ethics

We have adopted a code of business conduct and ethics that applies to all employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. The code of business conduct and ethics is available on our website at www.dicerna.com. Amendments to, and waivers from, the code of business conduct and ethics that apply to any director, executive officer or persons performing similar functions will be disclosed at the website address provided above and, to the extent required by applicable regulations, on a Current Report on Form 8-K filed with the SEC.

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DIRECTOR COMPENSATION

Prior to the initial public offering, we did not have a formal policy for compensating our non-employee directors. However, non-employee directors who are not affiliated with any of our major stockholders may receive stock options and other equity awards under our stock incentive plans from time to time as determined by our board of directors. We also reimburse non-employee directors for travel expenses incurred in connection with their duties as directors. In addition, we entered into an offer letter with David M. Madden, the chairman of our board of directors, in June 2009 that provides for him to receive an annual cash retainer of $75,000 for his service as a director, and we entered into an offer letter with Dennis H. Langer, M.D., J.D. in February 2011 that provides for him to receive an annual cash retainer of $25,000 for his service as a director.

In 2009, we entered into a transition agreement with James C. Jenson, Ph.D., our co-founder and former chief executive officer, to provide for the transition of his duties to a new chief executive officer. The agreement provided for Dr. Jenson to continue to serve as a member of our board of directors and to receive an annual retainer of $50,000. In July 2013, we entered into an amendment of this agreement, pursuant to which Dr. Jenson continued to serve on our scientific advisory board for an annual retainer $50,000. Dr. Jenson s service on our scientific advisory board was terminated on February 7, 2014.

In April 2014, we adopted a new compensation program for our non-employee directors, pursuant to which we compensate our non-employee directors with a combination of cash and equity. Each non-employee director is eligible to receive an annual retainer of $35,000 for serving on the board of directors, and the chairperson of our board of directors is eligible to receive an additional annual retainer of $25,000. The program also provides that we compensate the members of the board of directors for service on our committees as follows:

- The chairperson of our audit committee will receive an annual cash retainer of $15,000 for such service, and each of the other members of the audit committee will receive an annual cash retainer of $5,200.

- The chairperson of our compensation committee will receive an annual cash retainer of $10,000 for such service, and each of the other members of the compensation committee will receive an annual cash retainer of $5,200.

- The chairperson of our nominating and corporate governance committee will receive an annual cash retainer of $7,000 for such service, and each of the other members of the nominating and corporate governance committee will receive an annual cash retainer of $5,200.

Under our new director compensation program, each non-employee director in office at the time of the closing of the initial public offering of our common stock was granted an option to purchase 25,000 shares of our common stock (or 30,000 shares in the case of the chairperson of the board of directors) in April 2014. The program also provides that a new non-employee director will be granted an option to purchase 25,000 shares of our common stock (or 30,000 shares in the case of a new chairperson of the board of directors) upon his or her appointment to the board of directors, and commencing with the 2014 annual meeting of stockholders, each non-employee director continuing in office immediately after our annual meeting each year will be granted an option to purchase 15,000 shares of our common stock (or 20,000 shares in the case of the chairperson of the board of directors). Each option granted under our director compensation program has an exercise price equal to the closing price of our common stock on the grant date. The initial grants made in April 2014 and grants made thereafter to a new non-employee director will vest as to one-third

of the grant after one year (or, in the case of the April 2014 grants, on January 30, 2015) and as to the remaining two-thirds of the grant in quarterly installments over the two-year period thereafter, subject to the director s continued service through the applicable vesting date. Grants made to continuing non-employee directors following our annual meeting each year vest one year after the grant date, subject to the director s continued service through the applicable vesting date.

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Director Compensation Table Year Ended December 31, 2013

The following table presents information regarding the compensation paid for 2013 to members of our board of directors who are not also employed by us or any of our subsidiaries (our non-employee directors). The compensation paid to Douglas M. Fambrough, III, Ph.D., who is also our chief executive officer, is set forth in the section titled Executive Compensation in this proxy statement and the related explanatory tables. Dr. Fambrough was not entitled to receive additional compensation for his service as a director.

Name	Fees earned or paid in cash ($)	Option awards (1) ($)	All other compensation ($)	Total ($)
Jonathan Fleming(2)				
Brian K. Halak, Ph.D.				
Stephen J. Hoffman, M.D., Ph.D.				
James C. Jenson, Ph.D.(3)	29,167	100,500		129,667
Peter Kolchinsky, Ph.D.				
Dennis H. Langer, M.D., J.D.	25,000	133,765		158,765
Jonathan MacQuitty, Ph.D.(4)				
David M. Madden	75,000	225,167		300,167
Vincent J. Miles, Ph.D.(5)				

(1) Pursuant to applicable SEC rules, the amounts reported in the Option Awards column of the table above reflect the fair value on the grant date of the option awards granted to our non-employee directors during 2013. These amounts also include an incremental charge for the repricing of certain stock options held by Dr. Langer and Mr. Madden during 2013. These values have been determined under the principles used to calculate the value of equity awards for purposes of our financial statements. For a discussion of the assumptions and methodologies used to calculate the amounts referred to above, please see the discussion of option awards contained in Note 10, Common Stock and Stock Option Plan, to our consolidated financial statements for the fiscal year ended December 31, 2013 included in our Annual Report on Form 10-K filed with the SEC on March 27, 2014. As of December 31, 2013, Dr. Jenson held outstanding options to purchase 50,000 shares of our common stock, Dr. Langer held outstanding options to purchase 50,900 shares of our common stock and Mr. Madden held outstanding options to purchase 112,511 shares of our common stock (in each case, after giving effect to a one-for-250 reverse split of our common stock effected by us on July 25, 2013 as to options granted prior to that date). Other than these options, none of our non-employee directors held any outstanding options or other equity awards on that date.

(2) Mr. Fleming resigned as a member of our board of directors in July 2013.

(3) Dr. Jenson resigned as a member of our board of directors in July 2013.

(4) Dr. MacQuitty resigned as a member of our board of directors in November 2013.

(5) Dr. Miles joined our board of directors in November 2013.

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EXECUTIVE OFFICERS

The following sets forth information about our executive officers as of April 25, 2014.

Name	Position	Age
Douglas M. Fambrough, III, Ph.D.	President, Chief Executive Officer and Director	45
Pankaj Bhargava, M.D.	Chief Medical Officer	45
Bob D. Brown, Ph.D.	Chief Scientific Officer, Senior Vice President	49
James E. Dentzer	Chief Financial Officer	47
James B. Weissman	Chief Business Officer	52

The following is biographical information as of April 25, 2014 for our executive officers other than Douglas M. Fambrough, III, Ph.D., whose biographical information is included in Proposal 1 above.

Pankaj Bhargava, M.D., chief medical officer

Pankaj Bhargava, M.D. joined us as chief medical officer in March 2014. Prior to that, he was Associate Vice President at Sanofi Oncology from February 2011 to March 2014, where he led the global development of aflibercept (ZALTRAP) culminating in successful approvals by the U.S. Food and Drug Administration, European Medicines Agency and several other regulatory authorities worldwide. Dr. Bhargava also served as the Gastrointestinal Oncology Therapeutic Leader, Chairman of Protocol Review Committee, and a member of the Development Leadership Team at Sanofi Oncology Division. Prior to joining Sanofi, Dr. Bhargava was Vice President Clinical Research and Interim Chief Medical Officer at AVEO Pharmaceuticals, Inc. (NASDAQ: AVEO) from November 2006 to February 2011, where he led its clinical programs across all indications spanning from Phase 1 to Phase 3 development and was responsible for clinical and regulatory strategy, clinical development, operations, pharmaco-vigilance and joint development with alliance partners, among other things. Dr. Bhargava currently serves as an Attending Physician at Dana-Farber Cancer Institute and part-time faculty member at Harvard Medical School. Dr. Bhargava holds an M.B., B.S. degree from the University of Delhi, India, and is an alumnus of Harvard Business School Executive Education Program. Dr. Bhargava is U.S. Board Certified in Internal Medicine, Medical Oncology and Clinical Pharmacology, and did an advanced fellowship in Developmental Therapeutics at the Lombardi Cancer Center, Georgetown University.

Bob D. Brown, Ph.D., chief scientific officer, senior vice president

Bob D. Brown, Ph.D. initially served as our senior vice president of research beginning in May 2008 and has served as our chief scientific officer since January 2012. From March 2003 to March 2008, Dr. Brown held various positions at Genta Incorporated, most recently as its vice president of research and technology. Previously, he was a co-founder and vice president of research and development of Oasis Biosciences Inc., which was acquired by Gen-Probe Incorporated. Dr. Brown is an inventor or co-inventor on 16 issued patents and dozens of patent applications covering oligonucleotide and conventional small molecule therapeutic agents, diagnostic tool and oligonucleotide and small molecule drug delivery technologies. Dr. Brown holds a Ph.D. in molecular biology from the University of California, Berkeley, and a B.S. in chemistry and biology from the University of Washington, Seattle.

James E. Dentzer, chief financial officer

James E. Dentzer joined us as chief financial officer in December 2013. Prior to that, he was the chief financial officer of Valeritas, Inc. from March 2010 to December 2013, where he led the finance team in raising a $150 million Series

C equity round and a $100 million debt financing and helped guide the company through approval by the U.S. Food and Drug Administration, manufacturing scale-up and commercial launch of the V-Go insulin delivery device. Prior to joining Valeritas, Inc., he was the chief financial officer of Amicus Therapeutics, Inc. (NASDAQ: FOLD) from October 2006 to October 2009, where he led the company through a Series D

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preferred stock financing and subsequent initial public share offering. In prior positions, he spent six years as corporate controller of Biogen Idec and six years in various senior financial roles at E.I. du Pont de Nemours and Company in the U.S. and Asia. Mr. Dentzer holds a B.A. in philosophy from Boston College and an M.B.A. from the University of Chicago.

James B. Weissman, chief business officer

James B. Weissman has served as our chief business officer since January 2012. From January 2006 to January 2012, Mr. Weissman was senior director and then vice president, business development of MannKind Corporation (NASDAQ: MNKD), where he was responsible for leading the company s activities related to licensing, new products and strategic planning. Prior to MannKind, Mr. Weissman held leadership positions in both business development and marketing at Pfizer Pharmaceuticals, Inc. in Tokyo, most recently as senior director of marketing, responsible for the sales, profit and strategic targets for the company s specialty products, in a variety of therapeutic areas. Mr. Weissman holds a B.S. from Bates College in Maine.

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EXECUTIVE COMPENSATION

Overview

Our executive compensation program is based on a pay-for-performance philosophy. We designed our executive compensation program to achieve the following primary objectives:

- provide compensation and benefit levels that will attract, retain, motivate and reward a highly talented executive team;
- create an environment that fosters high performance and strong sense of urgency to bring our novel therapeutic approach to patients;
- establish a direct link between the Company, individual and team performance and results and our executives compensation; and
- align the interests and objectives of our executives with those of our stockholders by linking executive equity awards to long-term stockholder value creation.

Compensation for our executive officers is comprised primarily of the following three main components.

Base Salary. Base salaries are determined on a case-by-case basis for each executive, including consideration of each officer s experience, expertise and performance, as well as market compensation levels for similar positions.

Annual Cash Incentive Bonuses. Annual cash incentive bonuses are contingent upon our achievement of certain operational and financial objectives, which for 2013 consisted primarily of research and development goals. Each executive s target bonus amount is expressed as a percentage of the executive s base salary and intended to be commensurate with the executive s position and responsibilities. Target bonuses for the executives ranged from 30 to 35 percent of base salary for the year ended December 31, 2013.

Long-term Equity Incentives. We believe equity awards in the form of options to purchase shares of our common stock provide an incentive for our executives to focus on driving growth in our stock price and long-term value creation and help us to attract and retain key talent. In addition, the granting of options helps ensure that the interests of our executive officers are aligned with those of our stockholders as the options only have value if the value of the Company s stock increases after the date the option is granted. In 2013, we granted options to our executives that would vest only if we achieved certain performance objectives deemed important to our success, as well as options that vest based on the executive s continued service to the Company and provide an additional retention incentive.

Our executive officers are entitled to certain benefits if the executive s employment terminates in certain circumstances or if a change of control occurs. We also may provide our executives with relocation, housing or other benefits in certain circumstances. However, we do not provide any of our executive officers with a tax gross-up payment on any severance or change-of-control benefits although we may provide tax reimbursement payments on relocation and other benefits.

Our compensation committee reviews our executive officers overall compensation packages on an annual basis or more frequently as it deems appropriate. From time to time, we may retain independent compensation consultants as we consider appropriate to help identify appropriate peer group companies and to obtain and evaluate current executive compensation data. We did not retain compensation consultants in designing our executive compensation programs for 2012 and 2013. The compensation committee retained an independent compensation consultant in designing our executive compensation programs for 2014.

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Summary Compensation Table

The following table provides a summary of compensation paid to our principal executive officer and each of our other executive officers for the year ended December 31, 2013 (collectively, the named executive officers).

Summary Compensation Table Year Ended December 31, 2013

Name and principal position	Fiscal year	Base salary ($)	Bonus ($)[2]	Stock awards ($)	Option awards ($)[1]	Non-equity incentive plan compensation ($)[2]	All other compensation ($)[3]	Total ($)
Douglas M. Fambrough, III, Ph.D.	2013	375,000			1,151,485	164,063	8,875	1,699,423
President and Chief Executive Officer	2012	375,000				65,625	8,688	449,313
James E. Dentzer[4]	2013	20,401	45,000		882,813	9,235		957,449
Chief Financial Officer								
Bob D. Brown, Ph.D	2013	315,000			445,778	118,125	78,654	957,557
Chief Scientific Officer, Senior Vice President	2012	315,000				47,250	73,108	435,358
James B. Weissman	2013	295,000			307,249	110,625	11,698	724,572
Chief Business Officer	2012	295,000			78,325	44,250	121,476	539,051

(1) Pursuant to applicable SEC rules, the amounts reported in the Option Awards column of the table above reflect the fair value on the grant date of the option awards granted to our named executive officers during 2013 and 2012, and do not reflect the actual amounts earned. These amounts also include an incremental charge for the repricing of certain stock options held by Dr. Fambrough, Dr. Brown and Mr. Weissman during 2013. These values have been determined under the principles used to calculate the value of equity awards for purposes of our financial statements. For a discussion of the assumptions and methodologies used to calculate the amounts referred to above, please see the discussion of option awards contained in Note 10, Common Stock and Stock Option Plan, to our consolidated financial statements for the fiscal year ended December 31, 2013 included in our Annual Report on Form 10-K filed with the SEC on March 27, 2014. The amounts reported in this column for each executive for 2013 include certain grants of stock options that are subject to performance-based vesting requirements as described in the footnotes to the Outstanding Equity Awards at December 31, 2013 table below. These amounts are reported based on the probable outcome (as of the grant date) of the performance-based conditions applicable to the awards, as determined under generally accepted accounting principles. In each case, the amount was determined assuming that the maximum level of performance applicable to the award would be achieved.

(2) These amounts include payments under our annual incentive bonus plan, which is based on our performance against certain operational and financial goals established by our compensation committee. Based on what the compensation committee determined was remarkable progress with respect to our technology, product candidates and financial position, our named executive officers were awarded bonuses of 125 percent of their target bonus

levels for 2013 (with Mr. Dentzer s bonus being prorated to reflect his period of service with the Company during 2013). Named executive officers were awarded bonuses of 50 percent of their target bonus levels for 2012. The amount reported in the Bonus column for Mr. Dentzer represents the first installment of a $90,000 signing bonus provided under his employment agreement.

(3) The amounts reported in this column consist of matching contributions we made to each executive s account under our 401(k) plan, as well as, in the case of Dr. Brown and Mr. Weissman, payment by us of certain temporary housing and relocation expenses and reimbursement for taxes incurred in connection with such payments.

(4) Mr. Dentzer commenced employment with us in December 2013.

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Employment Agreements

Douglas M. Fambrough, III, Ph.D.

In May 2010, we entered into an employment agreement with Dr. Fambrough to serve as our president and chief executive officer. Dr. Fambrough s employment with us is at-will, and the agreement does not include a specified term. The agreement provides that Dr. Fambrough receives an annual base salary, initially established at $375,000, and that he is eligible for an annual incentive bonus, with his target bonus being 35 percent of his base salary. The board of directors will determine his actual bonus amount based on its assessment of the Company and individual performance during the year. The agreement also provides for Dr. Fambrough to participate in our benefit programs made available to our senior executives generally.

Under Dr. Fambrough s agreement, if his employment is terminated by us without cause or by him for good reason (as such terms are defined in the agreement), he will be entitled to receive cash severance equal to twelve months of his base salary, reimbursement of his COBRA premiums for up to twelve months and a prorated payment of his target bonus for the year in which his termination occurs. If such a termination of Dr. Fambrough s employment occurs within one year after a change in control of the Company (as defined in the agreement), he would also be entitled to full acceleration of his stock options granted pursuant to the agreement. Dr. Fambrough s right to receive these severance benefits is subject to his providing a release of claims in favor of us.

James E. Dentzer

In November 2013, we entered into an employment agreement with Mr. Dentzer to serve as our chief financial officer beginning in December 2013. Mr. Dentzer s employment with us is at-will, and the agreement does not include a specified term. The agreement provides that Mr. Dentzer receives an annual base salary, initially established at $335,000, and that he is eligible for an annual incentive bonus, with his target bonus being 35 percent of his base salary. The board of directors will determine his actual bonus amount based on its assessment of the Company and individual performance during the year. The agreement also provides for Mr. Dentzer to participate in our benefit programs made available to our senior executives generally.

Under Mr. Dentzer s agreement, if his employment is terminated by us without cause or by him for good reason (as such terms are defined in the agreement), he will be entitled to receive cash severance equal to six months of his base salary and reimbursement of his COBRA premiums for up to six months. If such a termination of Mr. Dentzer s employment occurs within one year after a change in control of the Company (as defined in the agreement), his cash severance would be equal to twelve months of his base salary and would be paid to him in a lump sum, and he would be eligible for reimbursement of his COBRA premiums for up to twelve months. Mr. Dentzer s right to receive these severance benefits is subject to his providing a release of claims in favor of us.

Bob D. Brown, Ph.D.

In May 2008, we entered into an employment agreement with Dr. Brown to serve as our senior vice president of research. Dr. Brown s employment with us is at-will, and the agreement does not include a specified term. The agreement provides that Dr. Brown receives an annual base salary, initially established at $250,000, and that he is eligible for an annual incentive bonus, with his target bonus being 30 percent of his base salary. The board of directors will determine his actual bonus amount based on its assessment of the Company and individual performance during the year. The agreement also provides for Dr. Brown to participate in our benefit programs made available to our senior executives generally.

Under Dr. Brown s agreement, if his employment is terminated by us without cause or by him for good reason (as such terms are defined in the agreement), he will be entitled to receive cash severance equal to six months of his base salary and reimbursement of his COBRA premiums for up to six months. If such a

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termination of Dr. Brown s employment occurs within one year after a change in control of the Company (as defined in the agreement), his cash severance would be equal to twelve months of his base salary and would be paid to him in a lump sum, and he would be eligible for reimbursement of his COBRA premiums for up to twelve months. Dr. Brown s right to receive these severance benefits is subject to his providing a release of claims in favor of us.

James B. Weissman

In December 2011, we entered into an employment agreement with Mr. Weissman to serve as our chief business officer. Mr. Weissman s employment with us is at-will, and the agreement does not include a specified term. The agreement provides that Mr. Weissman receives an annual base salary, initially established at $295,000, and that he is eligible for an annual incentive bonus, with his target bonus being 30 percent of his base salary. The board of directors will determine his actual bonus amount based on its assessment of the Company and individual performance during the year. The agreement also provides for Mr. Weissman to participate in our benefit programs made available to our senior executives generally.

Under Mr. Weissman s agreement, if his employment is terminated by us without cause or by him for good reason (as such terms are defined in the agreement), he will be entitled to receive cash severance equal to six months of his base salary and reimbursement of his COBRA premiums for up to six months. If such a termination of Mr. Weissman s employment occurs within one year after a change in control of the Company (as defined in the agreement), his cash severance would be equal to twelve months of his base salary and would be paid to him in a lump sum, and he would be eligible for reimbursement of his COBRA premiums for up to twelve months. Mr. Weissman s right to receive these severance benefits is subject to his providing a release of claims in favor of us.

The named executive officers employment agreements also provide for grants of stock options by us as described in more detail in the Outstanding Equity Awards at December 31, 2013 table below and the footnotes that follow the table. The options granted to each executive officer under his employment agreement would generally vest on a change in control of the Company or, in Dr. Fambrough s case, an involuntary termination of his employment following a change in control. In January 2014, we entered into an agreement with Mr. Dentzer that provides for him to be reimbursed by us for any taxes imposed pursuant to Section 409A of the U.S. Internal Revenue Code of 1986, as amended, with respect to the option grant under his employment agreement. Each executive has also entered into an agreement that includes noncompetition and nonsolicitation covenants in favor of us that apply during the executive s employment with us and for two years thereafter.

Defined Contribution Plan

As part of our overall compensation program, we provide all full-time employees, including our named executive officers, with the opportunity to participate in a defined contribution 401(k) plan. Our 401(k) plan is intended to qualify under Section 401 of the Internal Revenue Code so that employee contributions and income earned on such contributions are not taxable to employees until withdrawn. Employees may elect to defer up to 96 percent of their eligible compensation (not to exceed the statutorily prescribed annual limit) in the form of elective deferral contributions to our 401(k) plan. Our 401(k) plan also has a catch-up contribution feature for employees aged 50 or older (including those who qualify as highly compensated employees) who can defer amounts over the statutory limit that applies to all other employees. We currently provide matching contributions under the plan of up to four percent of an employee s eligible compensation.

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Outstanding Equity Awards at December 31, 2013

The following table presents information regarding the outstanding stock options held by each of the named executive officers as of December 31, 2013, including the vesting dates for the portions of these awards that had not vested as of that date. None of the named executive officers held any outstanding restricted stock or other equity awards as of that date.

Name	Grant date	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Equity incentive plan awards: number of securities underlying unexercised unearned options (#)	Option exercise price ($)	Option expiration date
Douglas M. Fambrough, III, Ph.D.	6/8/10	300	750(1)		3.42	6/8/20
	10/14/10	290	1,160(2)		3.42	10/14/20
	9/24/13	35,156	246,094(3)		3.42	9/23/23
	9/24/13			281,250(4)	3.42	9/23/23
James E. Dentzer	12/30/13		156,250(5)		3.42	12/30/23
Bob D. Brown, Ph.D.	5/7/08	1,200			3.42	5/7/18
	2/27/09	400			3.42	2/27/19
	10/14/10	1,333	267(6)		3.42	10/14/20
	9/24/13	16,406	114,844(3)		3.42	9/23/23
	9/24/13			87,500(7)	3.42	9/23/23
James B. Weissman	4/27/12	33	834(8)		3.42	4/26/22
	4/27/12			1,500(9)	3.42	4/26/22
	9/24/13	11,250	78,750 (3)		3.42	9/23/23
	9/24/13			60,000(10)	3.42	9/23/23

(1) The unvested portion of this option vests in five monthly installments, with the last installment vesting on May 31, 2014.

(2) The unvested portion of this option vests in eight monthly installments, with the last installment vesting on August 5, 2014.

(3) These options vest in monthly installments, with the first such installment vesting July 30, 2013 and an additional installment vesting on the last day of each of the 47 months thereafter.

(4) This option vests based on the achievement of certain regulatory approvals, certain operational and business development goals and the listing of our common stock on The NASDAQ Stock Market, with 20 percent of the option vesting on the achievement of each such goal. The listing of our common stock on The NASDAQ Stock Market has been achieved as of February 4, 2014.

(5)

This option vests as to 25 percent of the option on December 9, 2014, and as to the remaining 75 percent of the option in 36 monthly installments thereafter.

(6) This option vests as to 25 percent of the option on August 5, 2011, and as to the remaining 75 percent of the option in 36 monthly installments thereafter.

(7) This option vests based on the achievement of certain regulatory approvals.

(8) The unvested portion of this option vests in 25 monthly installments, with the last installment vesting on January 31, 2016.

(9) This option vests based on the Company s deriving non-equity cash from new business development activity as set forth in Mr. Weissman s employment agreement.

(10) This option vests 50 percent on the achievement of certain business development goals and 50 percent on the listing of our common stock on The NASDAQ Stock Market, which has been achieved as of February 4, 2014.

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INFORMATION ABOUT OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Independent Registered Public Accounting Firm Fees And Services

The following table represents aggregate fees billed to us for fiscal years ended December 31, 2013 and 2012, respectively, by Deloitte & Touche LLP, our independent registered public accounting firm.

	Fiscal Year Ended December 31,	
	2013	2012
Audit Fees	$ 974,850	$ 20,000
Audit-Related Fees		
Tax Fees	8,550	8,324
All Other Fees		
Total	$ 983,400	$ 28,324

Audit Fees. This category consists of fees for professional services rendered in connection with the audit of our annual financial statements, review of our quarterly financial statements, assistance with registration statements filed with the SEC and services that are normally provided by the independent registered public accounting firm in connection with statutory and regulatory filings or engagements. Fees of 2013 also include fees associated with the initial public offering of our common stock closed on February 4, 2014, which included review of our quarterly financial statements included in our registration statement on Form S-1 filed with the SEC and delivery of comfort letters, consents and review of documents filed with the SEC.

Audit-Related Fees. This category consists of fees for professional services rendered that are reasonably related to the performance of the audit or review of our financial statements.

Tax Fees. This category consists of fees for tax consultation services provided.

All Other Fees. This category consists of fees for all other services that are not reported above.

We did not incur any Audit-Related Fees or Other Fees in 2013 or 2012. All fees described above were approved by our board of directors or the audit committee of the board of directors.

Pre-Approval Policies and Procedures

The audit committee has adopted policies and procedures for the pre-approval of audit and non-audit services provided by our independent registered public accounting firm, Deloitte & Touche LLP. The policy generally requires pre-approval for specified services in the defined categories of audit services, audit-related services and tax services up to specified amounts. Pre-approval may also be given as part of the audit committee s approval of the scope of the engagement of the independent registered public accounting firm or on an individual explicit case-by-case basis before the independent registered public accounting firm is engaged to provide each service. The pre-approval of services may be delegated to one or more of the audit committee s members, but the decision must be reported to the full audit committee at its next scheduled meeting.

The audit committee will review both audit and non-audit services performed by Deloitte & Touche LLP and the fees charged for such services on at least an annual basis. Among other things, the audit committee will review non-audit services proposed to be provided by Deloitte & Touche LLP and pre-approve such services only if they are compatible with maintaining Deloitte & Touche LLP s status as an independent registered public accounting firm. All services provided by Deloitte & Touche LLP in 2013 and 2012 were pre-approved by our board of directors or the audit committee after review of each of the services proposed for approval.

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REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The material in this report is being furnished and shall not be deemed filed with the Securities and Exchange Commission (SEC) for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), or otherwise subject to the liability of that section, nor shall the material in this section be deemed to be soliciting material or incorporated by reference in any registration statement or other document filed with the SEC under the Securities Act of 1933, as amended, or the Exchange Act, except as otherwise expressly stated in such filing.

The audit committee is currently comprised of three non-employee directors, Stephen J. Hoffman, M.D., Ph.D., who chairs the committee, and David M. Madden and Vincent J. Miles, Ph.D. Our board of directors has determined that Dr. Hoffman, Mr. Madden and Dr. Miles meet the independence requirements set forth in Rule 10A-3(b)(1) under the Exchange Act and in the applicable NASDAQ rules. In addition, the board of directors has determined that Dr. Hoffman qualifies as audit committee financial experts as defined by SEC rules. The audit committee has the responsibility and authority described in the audit committee charter, which has been approved by the board of directors. A copy of the audit committee charter is available on our website at www.dicerna.com.

The audit committee is responsible for assessing the information provided by management and our independence registered public accounting firm in accordance with its business judgment. Management is responsible for the preparation, presentation and integrity of our financial statements and for the appropriateness of the accounting principles and reporting policies that are used. Management is also responsible for testing the system of internal controls and reports to the audit committee on any deficiencies found. Our independent registered public accounting firm, Deloitte & Touche LLP, is responsible for auditing the annual financial statements and for reviewing the unaudited interim financial statements.

In fulfilling its oversight responsibilities, the audit committee has reviewed and discussed the audited financial statements in our Annual Report on Form 10-K for the year ended December 31, 2013 with both management and our independent registered public accounting firm. The audit committee s review included a discussion of the quality and integrity of the accounting principles, the reasonableness of significant estimates and judgments and the clarity of disclosures in the financial statements.

The audit committee reviewed with our independent registered public accounting firm the overall scope and plan of the audit. In addition, it met with our independent registered public accounting firm, with and without management present, to discuss the results of our registered public accounting firm s examination, the evaluation of our system of internal controls, the overall quality of our financial reporting and such other matters as are required to be discussed under generally accepted accounting standards in the United States. The audit committee has also received from, and discussed with, our independent registered public accounting firm the matters required to be discussed by Auditing Standard No. 16, Communications with Audit Committees issued by the Public Company Accounting Oversight Board (PCAOB).

The audit committee has discussed with Deloitte & Touche LLP that firm s independence from management and our company, including the matters in the written disclosures and the letter regarding independence from Deloitte & Touche LLP required by applicable requirements of the PCAOB. The audit committee has also considered the compatibility of audit related and tax services with the auditors independence. Based on its evaluation, the audit committee has selected Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2014.

In reliance on the reviews and discussions referred to above, the audit committee recommended to the board of directors, and the board of directors approved, the inclusion of the audited financial statements and management s

assessment of the effectiveness of our internal controls over financial reporting in the Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC.

Audit Committee

Stephen J. Hoffman, M.D., Ph.D. (chairman)

David M. Madden

Vincent J. Miles, Ph.D.

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OTHER MATTERS

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

ADDITIONAL INFORMATION

Our website address is http://www.dicerna.com. The information in, or that can be accessed through, our website is not deemed to be incorporated by reference into this proxy statement. Our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and amendments to those reports are available, free of charge, on or through our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The public may read and copy any materials we file with the SEC at the SEC s Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling 1-800-SEC-0330. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding our filings at www.sec.gov. In addition, a copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2013 filed with the SEC is available without charge upon written request to: Secretary, Dicerna Pharmaceuticals, Inc., at 480 Arsenal Street, Building 1, Suite 120, Watertown, Massachusetts 02472.

By Order of the Board of Directors

/s/ Douglas M. Fambrough, III, Ph.D.
Douglas M. Fambrough, III, Ph.D.
President and Chief Executive Officer

April 30, 2014

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DICERNA PHARMACEUTICALS, INC.

480 ARSENAL STREET

BUILDING 1, SUITE 120

WATERTOWN, MA 02472

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time on June 17, 2014. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

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

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time on June 17, 2014. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

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

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

M75082-P53253

KEEP THIS PORTION FOR YOUR RECORDS

DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

DICERNA PHARMACEUTICALS, INC.

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

1. Election of Directors

Nominees:	**For**	**Against**	**Abstain**
1a. Douglas M. Fambrough, III	¨	¨	¨
1b. Brian K. Halak	¨	¨	¨
1c. Stephen J. Hoffman	¨	¨	¨
1d. Peter Kolchinsky	¨	¨	¨
1e. Dennis H. Langer	¨	¨	¨
1f. David M. Madden	¨	¨	¨
1g. Vincent J. Miles	¨	¨	¨

	For	**Against**	**Abstain**
2. To ratify the selection of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2014.	¨	¨	¨

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

Please indicate if you plan to attend this meeting.	¨	¨

	Yes	No

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

Signature [PLEASE SIGN WITHIN BOX]	Date	Signature (Joint Owners)	Date

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:

The Notice and Proxy Statement and Annual Report are available at www.proxyvote.com.

M75083-P53253

Dicerna Pharmaceuticals, Inc.

Annual Meeting of Stockholders

June 18, 2014 9:00 AM

This proxy is solicited by the Board of Directors

The undersigned hereby appoints Douglas M. Fambrough, III and James E. Dentzer, or either of them, as proxies, each with full power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of stock of Dicerna Pharmaceuticals, Inc. that the undersigned is entitled to vote at the Annual Meeting of Stockholders to be held at 9:00 AM Eastern Time on June 18, 2014, at the Babson College Conference Center, 231 Forest Street, Wellesley, MA 02457-0310, and any adjournment or postponement thereof, with discretionary authority to vote on any other matter that may properly come before the meeting. You hereby revoke all proxies previously given.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted FOR all of the director nominees listed in Proposal 1 and FOR Proposal 2, as more specifically indicated in the Proxy Statement, and at the direction of the proxies

on any other matter that may properly come before the meeting. If you vote by telephone or Internet, you do not need to mail back this proxy.

Continued and to be signed on reverse side