

INVIVO THERAPEUTICS HOLDINGS CORP.
Form PRE 14A
April 12, 2016

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

SCHEDULE 14A

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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

InVivo Therapeutics Holdings Corp.

(Name of Registrant as Specified In Its Charter)

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

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- 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:
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(1) Amount Previously Paid:

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

(3) Filing Party:

(4) Date Filed:

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**One Kendall Square, Suite B14402
Cambridge, MA 02139**

April , 2016

Dear InVivo Stockholder:

I am pleased to invite you to attend the 2016 Annual Meeting of Stockholders (the "Annual Meeting") of InVivo Therapeutics Holdings Corp., to be held on Thursday, May 26, 2016 at 9:00 a.m., local time, at the Royal Sonesta Hotel Boston, located at 40 Edwin H Land Blvd., Cambridge, Massachusetts 02142.

Specific details regarding admission to the Annual Meeting and the business to be conducted at the Annual Meeting are more fully described in the accompanying Notice of Annual Meeting and proxy statement. We encourage you to carefully read these materials, as well as the enclosed Annual Report for the fiscal year ended December 31, 2015.

Your vote is very important. Whether or not you plan to attend the Annual Meeting, I hope you will vote as soon as possible. You may vote via the Internet, by telephone, or if you received a paper copy of the proxy card, by completing and returning it in the envelope provided. Voting via the Internet, by telephone or by written proxy will ensure your representation at the Annual Meeting if you do not attend in person. Please review the instructions on the proxy card regarding each of these voting options.

Thank you for your continued support.

Sincerely,

Mark D. Perrin
Chief Executive Officer and Chairman of the Board

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INVIVO THERAPEUTICS HOLDINGS CORP.

**One Kendall Square, Suite B14402
Cambridge, MA 02139**

NOTICE OF 2016 ANNUAL MEETING OF STOCKHOLDERS

To Be Held On Thursday, May 26, 2016

To Our Stockholders:

Notice is hereby given that the 2016 Annual Meeting of Stockholders (the "Annual Meeting") of InVivo Therapeutics Holdings Corp., a Nevada corporation, will be held on Thursday, May 26, 2016 at 9:00 a.m., local time, at the Royal Sonesta Hotel Boston, located at 40 Edwin H Land Blvd., Cambridge, Massachusetts 02142, for the following purposes:

1. To elect a Class II director to hold office for a three-year term ending at our annual meeting of stockholders in 2019 or until his successor is duly elected and qualified or until his earlier removal or resignation;
2. To consider and vote upon a proposal to amend our Articles of Incorporation to increase the number of authorized shares of our common stock, par value \$0.00001 per share, from 50,000,000 shares to 100,000,000 shares;
3. To approve, on an advisory basis, the compensation of our named executive officers;
4. To ratify the appointment of RSM US, LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2016; and
5. To transact such other business as may properly come before the Annual Meeting or any adjournments or postponements thereof.

The Board of Directors has fixed Tuesday, April 12, 2016, as the record date for the determination of stockholders entitled to notice of, and to vote at, the Annual Meeting. Accordingly, only stockholders of record at the close of business on the record date will be entitled to notice of, and to vote at, the Annual Meeting, or any adjournments thereof.

All of our stockholders are cordially invited and encouraged to attend the Annual Meeting in person. To ensure your representation at the Annual Meeting, you are urged to vote your shares of common stock using one of the voting methods set forth in the attached proxy statement. Any stockholder attending the Annual Meeting may vote in person even if he or she previously submitted a proxy card. If your shares of common stock are held by a bank, broker, or other agent, please follow the instructions from your bank, broker, or other agent to have your shares voted.

By order of the Board of Directors,

Mark D. Perrin
Chief Executive Officer and Chairman of the Board

Cambridge, Massachusetts
April , 2016

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YOUR VOTE IS EXTREMELY IMPORTANT!

To ensure your representation at the Annual Meeting, please submit your proxy and voting instructions by completing, signing and dating the proxy card as promptly as possible and returning it in the enclosed envelope (to which no postage needs to be affixed if mailed in the United States), or using one of the voting methods set forth in the attached proxy statement.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: This proxy statement, the Notice of Meeting and our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 are available on the Internet, free of charge, at <http://www.cstproxy.com/invivotherapeutics/2016>. On this website, you will be able to access this proxy statement, our Annual Report on Form 10-K and any amendments or supplements to the foregoing material that are required to be furnished to stockholders.

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INVIVO THERAPEUTICS HOLDINGS CORP.

PROXY STATEMENT

FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON THURSDAY, MAY 26, 2016

This proxy statement is being furnished to you in connection with the solicitation by the Board of Directors (the "Board") of InVivo Therapeutics Holdings Corp. (the "company," "we," "us," or "our") of proxies, in the accompanying form, to be used at our 2016 Annual Meeting of Stockholders (the "Annual Meeting") to be held on Thursday, May 26, 2016 at 9:00 a.m., local time, at the Royal Sonesta Hotel Boston, located at 40 Edwin H Land Blvd., Cambridge, Massachusetts 02142, and any adjournment or postponement thereof.

This proxy statement and the accompanying form of proxy are being mailed to stockholders on or about April 14, 2016.

Questions and Answers about Voting at the Annual Meeting and Related Matters

What am I voting on?

At the Annual Meeting, you will be asked to vote on the following four proposals. Our Board recommendation for each proposal is set forth below.

| Proposal | Board Recommendation |
|---|-----------------------------|
| 1. To elect a Class II director to hold office for a three-year term ending at the annual meeting of stockholders in 2019 or until his successor is duly elected and qualified or until his earlier removal or resignation. | FOR |
| 2. To consider and vote upon a proposal to amend our Articles of Incorporation to increase the number of shares of our authorized common stock from 50,000,000 shares to 100,000,000 shares. | FOR |
| 3. To approve, on an advisory basis, the compensation of our named executive officers. | FOR |
| 4. To ratify the appointment of RSM US, LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2016. | FOR |

If other matters properly come before the Annual Meeting, the proxy holders will have the authority to vote on those matters on your behalf at their discretion. As of the date of this proxy statement, we are not aware of any matters that will come before the Annual Meeting other than those disclosed in this proxy statement.

Who can vote?

Holders of record of our common stock at the close of business on April 12, 2016 are entitled to vote at the Annual Meeting. As of April 12, 2016, there were 100,000,000 shares of our common stock issued and outstanding. Each share of common stock issued and outstanding is entitled to one vote.

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What constitutes a quorum, and why is a quorum required?

We are required to have a quorum of stockholders present to conduct business at the Annual Meeting. The presence, in person or by proxy, of stockholders holding a majority of the shares of our common stock issued and outstanding and entitled to vote at the Annual Meeting constitutes a quorum, permitting us to transact business at the Annual Meeting. Abstentions and broker non-votes are counted as present for purposes of determining a quorum. If we do not have a quorum, we will be forced to reconvene the Annual Meeting at a later date.

What is the difference between a stockholder of record and a beneficial owner?

If your shares are registered directly in your name with our transfer agent, Continental Stock Transfer & Trust Company, you are considered the "stockholder of record" with respect to those shares.

If your shares are held by a brokerage firm, bank, trustee or other nominee, you are considered the "beneficial owner" of shares held in street name. This proxy statement and Annual Report have been forwarded to you by your nominee who is considered the "stockholder of record" with respect to those shares. As the beneficial owner, you have the right to direct your nominee how to vote your shares by using the voting instruction form included in the mailing.

How do I vote my shares?

Stockholder of Record

If your shares are registered directly in your name, you may vote:

By mail. Complete and mail the enclosed proxy card in the enclosed postage prepaid envelope. Your proxy will be voted in accordance with your instructions. If you sign the proxy card but do not specify how you want your shares voted, they will be voted as recommended by our Board. Your proxy card must be mailed by the date shown on the proxy card to be counted.

Via the Internet. You may vote via the Internet by going to <http://www.cstproxyvote.com> and following the on-screen instructions. Please have your proxy card available when you access the webpage. Your vote must be received by 7:00 p.m., Eastern Daylight Time, on May 25, 2016 to be counted.

By Telephone. You may vote over the telephone by calling toll-free 1-866-894-0537 in the U.S. or Canada and follow the recorded instructions. Please have your proxy card available when you call. Your vote must be received by 7:00 p.m., Eastern Daylight Time, on May 25, 2016 to be counted.

In Person at the Annual Meeting. If you attend the Annual Meeting, you may deliver your completed proxy card in person or you may vote by completing a ballot, which will be available at the Annual Meeting.

Beneficial Owner of Shares Held in Street Name

If you hold shares in street name, the organization holding your account is considered the stockholder of record for purposes of voting at the Annual Meeting. The stockholder of record will provide you with instructions on how to vote your shares. Internet and telephone voting will be offered to stockholders owning shares through most banks and brokers. Additionally, if you would like to vote in person at the Annual Meeting, contact the broker or other nominee who holds your shares to obtain a legal proxy from the broker or other nominee, and bring it with you to the Annual Meeting. Please contact your broker or other nominee for instructions regarding obtaining a legal proxy. You will not be able to vote at the Annual Meeting unless you have obtained a legal proxy from your broker.

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What vote is required to approve each proposal?

The affirmative vote of the holders of a plurality of the votes cast at the Annual Meeting is required for Proposal No.1, the election of the Class II director. The affirmative vote of the holders of a majority of the voting rights of our outstanding common stock is required for Proposal No. 2, the approval of an amendment to our Articles of Incorporation. For the remaining proposals, the number of votes cast at the Annual Meeting in favor of the proposal must exceed the number of votes cast in opposition to such proposal in order for the proposals to be approved. Proposal No. 3, the advisory vote on named executive officer compensation is a non-binding proposal. Although the resolution contained in Proposal No. 3 is non-binding, the Board and the Compensation Committee of the Board will consider the outcome of the advisory vote on executive compensation when making future compensation decisions.

What if I sign and return my proxy without making any selections?

If you sign and return your proxy without making any selections, your shares will be voted as recommended by the Board of Directors. If other matters properly come before the Annual Meeting, the proxy holders will have the authority to vote on those matters for you at their discretion. As of the date of this proxy statement, we are not aware of any matters that will come before the meeting other than those disclosed in this proxy statement.

What if I am a beneficial owner and I do not give the nominee voting instructions?

Brokerage firms have the authority to vote shares for which their customers do not provide voting instructions on certain "routine" matters. A broker non-vote occurs when a nominee who holds shares for another does not vote on a particular item because the nominee does not have discretionary voting authority for that item and has not received instructions from the owner of the shares. Broker non-votes are included in the calculation of the number of votes considered to be present at the Annual Meeting for purposes of determining the presence of a quorum but are not counted as shares present and entitled to be voted with respect to a matter on which the nominee has expressly not voted. Other than the Proposal No. 4 to approve the ratification of the appointment of RSM US, LLP as our independent registered public accounting firm, none of the proposals described in this proxy statement relate to "routine" matters. As a result, a broker will not be able to vote your shares with respect to Proposals 1, 2 and 3 absent your voting instructions.

What if I abstain or withhold authority to vote on a proposal?

If you sign and return your proxy marked "ABSTAIN" on any proposal, other than Proposal No. 2, your shares will not be voted on that proposal and will not be counted as votes cast in the final tally of votes with regard to that proposal. With respect to Proposal No. 2, the approval of an amendment to our Articles of Incorporation, an abstention from voting will have the same effect as a vote "AGAINST" the proposal. However, in each case, your shares will be counted for purposes of determining whether a quorum is present.

What does it mean if I receive more than one proxy card?

If you receive more than one proxy card, it means that you hold shares of our common stock in more than one account. To ensure that all your shares are voted, sign and return each proxy card. Alternatively, if you vote by telephone or via the Internet, you will need to vote once for each proxy card you receive.

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Can I change my vote after I have mailed a signed proxy card?

You can change your vote at any time before your proxy is voted at the Annual Meeting by the following means:

You can send the company's Secretary a written notice stating that you revoke your earlier-dated proxy.

If you signed and returned a proxy card by mail and want to change your vote, you can complete, sign, date and deliver a new proxy card, dated a later date than the first proxy card.

If you submitted your proxy by telephone or via the Internet, you may change your vote or revoke your proxy with a later telephone or Internet proxy, as the case may be.

You can attend the Annual Meeting and vote in person. Your attendance at the Annual Meeting will not, however, by itself revoke your proxy. ***Even if you plan to attend the Annual Meeting, we recommend that you also submit your proxy or voting instructions or vote by telephone or via the Internet so that your vote will be counted if you later decide not to attend the Annual Meeting.***

If you hold your shares in "street name" and have instructed your broker, bank, or other agent to vote your shares for you, you must follow directions received from your broker, bank, or other agent to change those instructions.

Who can attend the Annual Meeting?

Only stockholders and our invited guests are invited to attend the Annual Meeting. To gain admittance, you must bring a form of personal identification to the meeting, where your name will be verified against our stockholder list. If a broker or other nominee holds your shares and you plan to attend the Annual Meeting, you should bring a recent brokerage statement showing your ownership of the shares as of the record date or a letter from the broker or other nominee confirming such ownership, and a form of personal identification.

If I plan to attend the Annual Meeting, should I still vote by proxy?

Yes. Casting your vote in advance does not affect your right to attend the Annual Meeting. If you vote in advance and also attend the Annual Meeting, you do not need to vote again at the Annual Meeting unless you want to change your vote. Written ballots will be available at the meeting for stockholders of record. Beneficial owners who wish to vote in person must request a legal proxy from the broker or other nominee and bring that legal proxy to the Annual Meeting.

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**PROPOSAL NO. 1
ELECTION OF DIRECTOR**

Our Board currently consists of six directors serving on a classified board, consisting of three classes. The directors in each class serve a three-year term. The terms of each class expire at successive annual meetings so that the stockholders elect one class of directors at each annual meeting. Directors appointed due to an increase in the size of the Board may be filled by the Board for a term of office continuing only until the next election of directors by the company's stockholders.

As previously disclosed, John A. McCarthy, Jr., a current Class II director, decided not to stand for re-election to our Board. As a result, following the Annual Meeting, we will have a vacancy on our Board. At the Annual Meeting, one Class II director is to be elected, to serve for a three-year term ending at the company's annual meeting of stockholders in 2019 or until his successor is duly elected and qualified.

Upon the recommendation of the Nominating and Corporate Governance Committee of the Board, the Board has nominated Daniel R. Marshak as a Class II director. Dr. Marshak has agreed to stand for election and to serve if elected. If Mr. Marshak should become unable to accept election, the persons named on the proxy card as proxies may vote for another person selected by the Board. Management has no reason to believe that Dr. Marshak will be unable to serve.

Biographical and certain other information concerning our director nominee and our directors continuing in office is set forth below. No director or executive officer is related by blood, marriage or adoption to any other director or executive officer.

Information as to our Board of Directors and Nominees

Nominee for Class II Director with Term Expiring at this Annual Meeting

Daniel R. Marshak, Ph.D., 59, has been a director of our company since September 2014. He most recently served as Senior Vice President and Chief Scientific Officer for PerkinElmer, Inc. until September 2014. Prior to joining PerkinElmer in 2006, Dr. Marshak was Vice President and Chief Technology Officer, Biotechnology, for Cambrex Corporation. Dr. Marshak has received numerous awards for scientific and academic achievements and is named as inventor on six issued U.S. patents. He currently serves on the International Society for Stem Cell Research Global Advisory Council and served on their board of directors from July 2008 to June 2014. Dr. Marshak is the author of more than 100 scientific publications, including one textbook, and has been the editor of five monographs. He recently held an appointment as Adjunct Associate Professor at the Johns Hopkins University School of Medicine and previously taught graduate biochemistry as an Assistant Professor at the State University of New York. Dr. Marshak received his B.A. degree in biochemistry and molecular biology from Harvard University, and he holds a Ph.D. in biochemistry and cell biology from The Rockefeller University. Dr. Marshak brings to our Board extensive industry experience and a deep understanding of the science and technology behind our business.

Continuing Class III Directors with Term Expiring at the 2017 Annual Meeting

Mark D. Perrin, 59, has served as a director of our company and our Chief Executive Officer since January 2014 and was appointed Chairman of the Board in February 2015. Prior to joining our company, Mr. Perrin served as President of Dennon Consulting, a biotech consulting firm, from June 2012 to December 2013. From November 2005 to October 2010, Mr. Perrin was President and Chief Executive Officer of ConjuChem Biotechnologies, Inc., a company developing long-acting conjugated peptide therapeutics. In 2010, ConjuChem filed a voluntary assignment in bankruptcy under the Canadian Bankruptcy and Insolvency Act in order to effect an orderly liquidation of its assets, property and operations. Prior to joining ConjuChem, Mr. Perrin was Executive Vice President and Chief

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Commercial Officer of Orphan Medical, Inc. from 2002 to 2005, when it was acquired by Jazz Pharmaceuticals. From 1995 to 2001, he was Executive Vice President, Commercial Operations of COR Therapeutics, Inc., where he created and developed sales, marketing, and manufacturing functions for the emerging company. Before that, he served as Vice President of Marketing and Sales for Burroughs Wellcome Company where he headed all commercial operations in the United States from 1992 to 1995. Mr. Perrin holds an M.B.A. in Marketing and International Business from the Kellogg Graduate School of Management at Northwestern University and a B.S. in Economics from Fordham University. Mr. Perrin brings to the Board extensive management experience in the biotechnology industry and, as our Chief Executive Officer, he provides the Board with insight into the day-to-day operations of our company.

C. Ann Merrifield, 65, has been a director of our company since November 2014. She also serves as a director of Flexion Therapeutics, a public biotechnology company and Juniper Pharmaceuticals, a specialty pharmaceutical company. Ms. Merrifield most recently served as President, Chief Executive Officer, and a director of PathoGenetix, Inc., a genomics company focused on developing an automated system for rapid bacterial identification, from 2012 until July 2014 when the company filed for Chapter 7 bankruptcy. Prior to then, she spent 18 years at Genzyme Corporation, serving in a number of leadership roles including President of Genzyme Biosurgery, President of Genzyme Genetics and Senior Vice President, Business Excellence. Ms. Merrifield also serves as trustee and director on several boards including Partners Continuing Care, the post-acute care services division of Partners HealthCare; the YMCA of Greater Boston; and MassMutual Premier, MML, and Select/MML II Funds. She holds a B.A. in zoology and a Master of Education from the University of Maine, and a M.B.A. from the Tuck School of Business at Dartmouth College. Ms. Merrifield brings to our Board an invaluable amount of experience and expertise over her long career in the life sciences industry.

Continuing Class I Directors with Term Expiring at the 2018 Annual Meeting

Kenneth DiPietro, 57, has been a director of our company since December 2012. Mr. DiPietro has served as Executive Vice President, Human Resources of Biogen, Inc., a publicly-traded biotechnology company, since January 2012. Mr. DiPietro joined Biogen from Lenovo Group, where he served as Senior Vice President, Human Resources from May 2005 until June 2011. From 2003 to 2005, he served as Corporate Vice President, Human Resources at Microsoft Corporation, and as Vice President, Human Resources at Dell Inc. from 1999 to 2002. Prior to that, he spent 17 years at PepsiCo, serving in a range of human resource and general management positions. Mr. DiPietro holds a B.S. degree in Industrial and Labor Relations from Cornell University. As a human resources senior executive, Mr. DiPietro brings broad cultural transformation, organizational development and corporate re-engineering experience to our Board.

Richard J. Roberts, Ph.D., 72, has been a director of our company since October 2010 and a director of InVivo Therapeutics Corporation, our wholly-owned subsidiary, since November 2008. Dr. Roberts initially joined InVivo Therapeutics Corporation's Scientific Advisory Board in June 2007 and continues as a member of our Scientific Advisory Board. He has served as Chief Scientific Officer at New England Biolabs since February 2007. Dr. Roberts was awarded the 1993 Nobel Prize in Physiology of Medicine along with Phillip Allen Sharp for the discovery of introns in eukaryotic DNA and the mechanism of gene-splicing. He holds a B.Sc. in Chemistry and a Ph.D. in Organic Chemistry from the University of Sheffield, U.K. Dr. Roberts brings to the Board his significant experience and understanding of the science and technology involved in our business.

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Vote Required

The affirmative vote of a plurality of the votes cast by the holders of our common stock, present or represented by proxy at the Annual Meeting and entitled to vote, is required for the election of our director nominee.

**OUR BOARD UNANIMOUSLY RECOMMENDS A VOTE "*FOR*" THE ELECTION OF THE
CLASS II DIRECTOR NOMINEE.**

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CORPORATE GOVERNANCE

Director Independence

We utilize the definition of "independence" as that term is defined by the Listing Rules of The NASDAQ Stock Market, LLC ("NASDAQ") and applicable rules of the Securities and Exchange Commission (the "SEC"), including the rules relating to the independence standards of an audit committee, and the non-employee director definition of Rule 16b-3 promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Using these standards, the Board has determined that all of our directors, other than Mr. Perrin, are independent directors.

Board Meetings and Attendance

The Board held five (5) meetings during 2015. Each director attended at least 75% of the total (i) regular Board meetings held during the period for which he or she was a director and (ii) meetings of the committee(s) of our Board on which he or she served (during the periods that he or she served). Our directors are encouraged, but not required, to attend our annual meeting of stockholders. All of our directors then serving on the Board were in attendance at our 2015 annual meeting of stockholders, and we expect that all of our directors will attend this Annual Meeting.

Board Leadership Structure

Our Chief Executive Officer, Mr. Perrin, also serves as the Chairman of the Board of Directors. Mr. Perrin has served as our Chief Executive Officer since January 2014, and was appointed Chairman of the Board in February 2015. The Board believes this leadership structure is currently serving our company well, and intends to maintain the combined roles of Chairman and Chief Executive Officer, along with a lead independent director, where appropriate and practicable. The decision to combine the positions of Chief Executive Officer and Chairman of the Board was made to promote consistent and unified leadership, timely decision-making, strategy development, and execution. In June 2015, our Board appointed Ms. Merrifield as our Lead Director.

Our Board believes that the independent directors provide effective oversight of management. Moreover, in addition to feedback provided during the course of Board meetings, the independent directors have regular executive sessions. Our lead director, acts as a liaison between the independent directors and the Chairman regarding any specific feedback or issues, provides the Chairman with input regarding agenda items for Board and committee meetings and coordinates with the Chairman regarding information to be provided to the independent directors in performing their duties. Our Board believes that this approach complements the combined Chairman/Chief Executive Officer structure.

The Board does not have a formal policy on whether the positions of Chairman and Chief Executive Officer should be separate and continues to believe that there is no uniform solution for a board leadership structure. The company has at times separated the positions of Chairman and Chief Executive Officer and at times combined the two. Our Board will periodically review the optimal leadership structure of the Board and believes that the right structure should be informed by the needs and circumstances of our company, the Board and our stockholders.

Board Committees

The Board has designated three principal standing committees: the Audit Committee, the Nominating and Corporate Governance Committee, and the Compensation Committee.

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Audit Committee

Our Board has a standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. The Audit Committee assists the Board in fulfilling its responsibilities concerning our financial reporting and internal controls. The Audit Committee facilitates open communication among the Audit Committee, the Board, our independent auditor and management. The Audit Committee discusses with management and our independent auditor the financial information developed by us, our systems of internal controls and our audit process. The Audit Committee is solely and directly responsible for appointing, evaluating, retaining, and, where necessary, terminating the engagement of our independent auditor. The independent auditor meets with the Audit Committee (both with and without the presence of our management) to review and discuss various matters pertaining to the audit, including our financial statements and its report on the company's financial statements and internal controls, as well as the scope and terms of the work of our independent auditor and its recommendations concerning the financial practices, controls, procedures and policies employed by our company. The current members of our Audit Committee are Mr. McCarthy (Chairman), Dr. Marshak, and Ms. Merrifield. Following the Annual Meeting, Mr. DiPietro will join the Audit Committee, and Dr. Marshak will serve as the Chairman of the Audit Committee. The Audit Committee held four meetings in 2015.

The Audit Committee pre-approves all audit services to be provided to us by our independent auditor and all other services (including reviewing, attestation and non-audit services) to be provided to us by the independent auditor.

The Audit Committee is also charged with establishing procedures for (i) the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters; and (ii) the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters. The Audit Committee reviews and oversees all related party transactions on an ongoing basis. The Audit Committee is authorized, without further action by the Board, to engage independent professional advisers and counsel as it deems necessary or appropriate to carry out its responsibilities. The Board has adopted a written charter for the Audit Committee, a copy of which is available in the "Investor Relations" section of our website at www.invivotherapeutics.com.

The Board has determined that all of the members of the Audit Committee are independent as defined by the NASDAQ Listing Rules and applicable SEC rules. The Board has determined that each of Mr. McCarthy and Ms. Merrifield is an "audit committee financial expert," as defined in Item 407(d)(5) of Regulation S-K.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee was formed in June 2015, when our Governance, Nominating & Compensation Committee recommended to the Board, and the Board approved, the separation of the Governance, Nominating & Compensation Committee into two standing committees: the Nominating and Corporate Governance Committee and the Compensation Committee. The Nominating and Corporate Governance Committee is charged with the responsibility of reviewing our corporate governance policies, overseeing the annual review on succession planning by the Board and with proposing potential director nominees to the Board for consideration. The Board has adopted a written charter for the Nominating and Corporate Governance Committee, which is reviewed annually and a copy of which is available in the "Investor Relations" section of our website at www.invivotherapeutics.com. The Board has determined that all of the members of the Nominating and Corporate Governance Committee are independent as defined by the rules of NASDAQ and the applicable rules of the SEC.

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The current members of our Nominating and Corporate Governance Committee are Ms. Merrifield (Chairwoman), Messrs. DiPietro and McCarthy, and Dr. Roberts. The Nominating and Corporate Governance Committee held four meetings in 2015.

Process for Stockholder Nominations

The Nominating and Corporate Governance Committee will consider director nominees recommended by security holders pursuant to our company's Policy Governing Director Nominations and Stockholder-Board Communications, which policy is reviewed by the Nominating and Corporate Governance Committee annually, a copy of which is available in the "Corporate Governance" section of our website. To recommend a nominee, please write to the Nominating and Corporate Governance Committee, InVivo Therapeutics Holdings Corp., One Kendall Square, Building 1400 East Floor 4, Cambridge, MA 02139, Attn: Chair Nominating and Corporate Governance Committee.

The Nominating and Corporate Governance Committee has established a set of criteria by which it will seek to evaluate candidates to serve on our Board. The evaluation includes selection based on criteria including factors such as experience and ability to exercise sound judgments in matters that relate to the current and long-term objectives of the company, high standards of personal and professional integrity, demonstrated business judgment, complimentary skill sets that can add to the functionality and collaboration with the current Board members, independence, knowledge of our company generally, age and dedication to the success of the company. While the value of diversity is considered, it would not be weighted any more or less in any evaluation process than any other criteria. The Nominating and Corporate Governance Committee will assess all director nominees using the same criteria and does not distinguish Board candidates based on whether the candidate is recommended by a stockholder of the company. During 2015, we did not pay any fees to any third parties to assist in the identification of nominees and we did not receive any director nominee suggestions from stockholders. Such recommendation for nomination must be in writing and include the following:

the name and address of the stockholder making the recommendation;

the number of shares of our common stock that such stockholder owns beneficially and holds of record;

the name and address of the individual recommended for consideration as a director nominee;

the principal occupation and experience of the director nominee;

the total number of shares of our common stock that the stockholder making the recommendation will vote for the director nominee;

a written statement from the stockholder making the recommendation stating whether the director nominee has indicated his or her willingness to serve if elected and why such recommended candidate would be able to fulfill the duties of a director; and

any other information regarding the director nominee that is required to be included in a proxy statement filed pursuant to the rules of the SEC.

Compensation Committee

Our Compensation Committee was formed in June 2015, when our Governance, Nominating & Compensation Committee recommended to the Board, and the Board approved, the separation of the Governance, Nominating & Compensation Committee into two standing committees: the Nominating and Corporate Governance Committee and the Compensation Committee. The Compensation Committee reviews and recommends compensation arrangements for our directors, management and employees and also assists the Board in reviewing and approving matters such as company benefits and

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insurance plans, including monitoring the performance thereof. The Compensation Committee has a charter, which is reviewed annually.

The Compensation Committee has the authority to directly engage, at our expense, any compensation consultants or other advisers as it deems necessary to carry out its responsibilities in determining the amount and form of employee, executive and director compensation. In early 2015, the Compensation Committee retained Towers Watson as its compensation consultant. At the request of the Compensation Committee, Towers Watson reviewed the "peer group" companies utilized by the Compensation Committee and conducted a competitive market assessment of our executive compensation program for our named executive officers. In November 2015, the Compensation Committee engaged Pearl Meyer & Partners, LLC ("Pearl Meyer") to replace Towers Watson. Pearl Meyer prepared a competitive assessment of cash and equity components of executive compensation. In determining the amount and form of employee, executive and director compensation, the Compensation Committee has reviewed and discussed historical salary information as well as salaries for similar positions at comparable companies.

The current members of our Compensation Committee are Mr. DiPietro (Chairman) and Drs. Marshak and Roberts. The Compensation Committee held six meetings in 2015.

Compensation Committee Interlocks and Insider Participation

None of the members of the Compensation Committee was at any time during 2015 or at any other time an officer or employee of our company. None of our executive officers serves as a member of the board of directors or compensation committee of any other entity that has one or more executive officers serving as a member of our Board or the Compensation Committee.

Risk Management Oversight

The Board takes an active role, as a whole and at the committee level, in overseeing management of our company's risks. Generally, the Board, with the assistance of its committees, is involved in overseeing our major risk exposures and monitors and assesses those risks in reviews with management and with our outside advisors and independent registered public accounting firm. The Audit Committee reviews regulatory risk, operational risk and enterprise risk, particularly as they relate to financial reporting, on a regular basis with management and our independent registered public accounting firm. The Nominating and Corporate Governance Committee oversees the Board's annual review of our succession planning. The Compensation Committee monitors compensation policies and compensation-related risks by review with management and outside advisors.

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics, as amended, that applies to all employees, officers and directors of our company, including our principal executive officer, principal financial officer and principal accounting officer or controller, or persons performing similar functions. Our Code of Business Conduct and Ethics is available in the "Investor Relations" section of our website at www.invivotherapeutics.com. A copy of our Code of Business Conduct and Ethics can also be obtained free of charge by contacting our Secretary, c/o InVivo Therapeutics Holdings Corp., One Kendall Square, Suite B14402, Cambridge, Massachusetts 02139. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding any amendment to, or waiver from, a provision of our Code of Business Conduct and Ethics by posting such information on our website.

Stockholder Communications to the Board

All communications to our Board, our Board committees or any individual director, must be in writing and addressed to our Secretary, c/o InVivo Therapeutics Holdings Corp., One Kendall Square,

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Suite B14402, Cambridge, Massachusetts 02139. All communications will be reviewed by the Secretary and, unless otherwise indicated in such communication, submitted to the Board or an individual director, as appropriate.

Scientific Advisory Board

In addition to our executive officers and directors, we also have a Scientific Advisory Board that provides guidance to our company. The Scientific Advisory Board reviews the progress of our company's product development and provides input to management regarding scientific issues relating to our product and potential markets. The Scientific Advisory Board is advisory only and does not have the power to make decisions on behalf of our company. It may, but is not required to, include officers, directors or employees of our company as members. Members of our Scientific Advisory Board do not receive any cash compensation related to their service on the Scientific Advisory Board. However, we have in the past compensated members with the issuance of stock options and may, from time to time, enter into consulting agreements with members of our Scientific Advisory Board. Dr. Robert Langer, a member of our Scientific Advisory Board, currently receives compensation for consulting services provided to us, as further discussed under "Certain Relationships and Related Transactions" later in this proxy statement.

The following persons are the current members of our Scientific Advisory Board.

Richard J. Roberts, Ph.D., has been a director of our company since October 2010. He initially joined the Scientific Advisory Board of InVivo Therapeutics Corporation, our wholly-owned subsidiary, in June 2007. Additional biographical information concerning Dr. Roberts may be found above under "Information as to our Board of Directors and Nominees."

Robert S. Langer, Sc.D., is one of 13 Institute Professors at the Massachusetts Institute of Technology (MIT); being an Institute professor is MIT's highest honor. Dr. Langer has written over 1,350 articles. He also has approximately 1,100 issued and pending patents worldwide. Dr. Langer's patents have been licensed or sublicensed to over 300 pharmaceutical, chemical, biotechnology and medical device companies. He received his Bachelor's Degree from Cornell University in 1970 and his Sc.D. from the Massachusetts Institute of Technology in 1974, both in Chemical Engineering. He served as a member of the United States Food and Drug Administration's SCIENCE Board from 1995 - 2002 and as its Chairman from 1999-2002. Dr. Langer has received over 220 major awards including being one of four living individuals to receive both the United States National Medal of Science and the United States National Medal of Technology and Innovation. He has also received the Charles Stark Draper Prize, the Millennium Prize, the Breakthrough Prize in Life Sciences, the Wolf Prize in Chemistry and the 2015 Queen Elizabeth Prize for Engineering. In 1989, Dr. Langer was elected to the Institute of Medicine of the National Academy of Sciences, and in 1992, he was elected to both the National Academy of Engineering and to the National Academy of Sciences. Dr. Langer has received honorary doctorates from 25 national and international universities.

V. Reggie Edgerton, Ph.D., has been the Director of UCLA's Edgerton Neuromuscular Research Lab since 1968 and is a Distinguished Professor in the Departments of Physiological Sciences, Neurobiology and Neurosurgery at UCLA. His research is focused on neural control of movement and how this neural control adapts to altered use and after spinal cord injury. He completed his Ph.D. under the direction of Dr. Wayne Van Huss at Michigan State University and currently serves on the Scientific Research Board of Helius Medical Technologies. Dr. Edgerton served on the Scientific Advisory Board of The Christopher Reeves Foundation (CDRF) and his laboratory is one of eight laboratories in the world as members of the CDRF Consortium performing collaborative research designed to advance potential interventions to spinal cord injury patients as soon as possible. Dr. Edgerton has co-authored two books and is the author of more than 400 peer-reviewed research

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papers. He is the recent recipient of the 2012 J. Allyn Taylor International Prize in Medicine and the Reeve-Irvine Research Award for his work in spinal cord injury.

James (Jim) Guest, M.D., Ph.D., is currently a Professor of Neurological Surgery at the Miller School of Medicine and the Miami Project to Cure Paralysis in Miami, FL. Dr. Guest's extensive contributions to the field of spinal cord injury, both in terms of medical practice and research, span over two decades. He's held numerous hospital appointments such as attending neurosurgeon at the Barrow Neurological Institute, West Palm Beach VA Medical Center, the University of Miami Hospital, and Chief of Spinal Neurosurgery at Miami Veteran's Medical Center. He's given more than 100 invited lectures domestically and internationally and has authored over 75 peer-reviewed publications, including articles, book chapters, and abstracts in the areas of cellular therapy for spinal cord injury, biology of neuroglia, and mechanisms of secondary injury. Dr. Guest has been active in research design for human clinical trials, participating as a Principal Investigator for the North American Clinical Trials Network (NACTN) for the Treatment of Spinal Cord Injury.

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DIRECTOR COMPENSATION

Our director compensation policy in place in 2015 provided for the following compensation to our non-employee directors: (i) an annual retainer of \$32,000 per year, paid quarterly, to each non-employee director; (ii) an annual retainer of \$15,000, paid quarterly, to the non-executive Chairman of the Board, and an annual retainer of \$5,000, paid quarterly, the chairperson of each standing committee of the Board; (iii) an annual retainer of \$5,000, paid quarterly, to each member of the standing committees of the Board; and (iv) an annual retainer to be paid to the Lead Director of \$10,000, paid quarterly. Non-employee directors are reimbursed for reasonable travel expenses in connection with attendance at meetings of the Board or any of its committees that are conducted in person and other activities directly related to the service to the company.

Each non-employee director also receives an annual grant, on December 10 of each calendar year, of a stock option to purchase 12,500 shares of our common stock at an exercise price equal to the closing price of our common stock on the date of grant. The options vest in 12 equal installments on each monthly anniversary of the date of grant until fully vested on the first anniversary of the date of grant, provided that such director remains a director of our company on each such vesting date. In addition, typically each newly elected or appointed non-employee director receives an initial grant of an option to purchase shares of the company's common stock at an exercise price equal to the closing price of our common stock on the date of grant, in the Board's discretion.

In March 2016, the Board approved the following changes to our director compensation policy, effective for the 2016 fiscal year, upon recommendation of the Compensation Committee:

an increase in the annual retainer to \$35,000 per year;

an increase in the annual retainer to be paid to the Lead Director to \$15,000, paid quarterly;

changes to the annual retainers for the chairpersons of the standing committees of the Board, paid quarterly, as follows:

(i) \$15,500 for the Audit Committee chairperson; (ii) \$10,000 for the Compensation Committee chairperson; and (iii) \$7,500 for the Nominating and Corporate Governance Committee chairperson;

changes to the annual retainers for each member of the standing committees of the Board, paid quarterly, as follows:

(i) \$7,500 for Audit Committee members; (ii) \$5,000 for Compensation Committee members; and (iii) \$3,750 for Nominating and Corporate Governance Committee members; and

the initial grant of options to a new director will be two times the annual grant made to directors at the time of such new director's initial election, and that, if such new director is appointed within three months prior to the date on which the annual grant to non-employee directors is then made, he or she will not be eligible to also receive such annual grant award.

Fiscal 2015 Director Compensation

The following table sets forth the compensation of our non-employee directors for 2015. Mr. Perrin, as an employee, does not receive any compensation as a director. For information on Mr. Perrin's compensation, see "Executive Compensation" below. All share and share-based numbers

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in the footnotes to this table reflect the company's one-for-four reverse stock split effected on April 8, 2015.

| Name | Fees Earned or Paid in Cash (\$) | Option Awards \$(1)(2) | Total (\$) |
|-------------------|---|---------------------------------------|-----------------------|
| Kenneth DiPietro | 47,000 | 224,444 | 271,444 |
| Daniel Marshak | 42,000 | 75,781 | 117,781 |
| C. Ann Merrifield | 49,500 | 75,781 | 125,281 |
| John McCarthy | 48,250 | 224,444 | 272,694 |
| Richard Roberts | 42,000 | 224,444 | 266,444 |

- (1) The amounts shown in this column represent the aggregate grant date fair value of the option awards computed in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification 718, not the actual amounts paid to or realized by the director during 2015. The assumptions used in determining grant date fair value of these awards are set forth in Note 12 to our Consolidated Financial Statements appearing in our Annual Report on Form 10-K for the year ended December 31, 2015 filed with the SEC on March 4, 2016.
- (2) As of December 31, 2015, the aggregate number of options to purchase shares of our common stock outstanding for each director listed above, including both vested and unvested shares, was as follows: Mr. DiPietro, 62,500 shares; Dr. Marshak, 37,500 shares; Mr. McCarthy, 62,500 shares; Ms. Merrifield, 37,500 shares; and Dr. Roberts, 281,887 shares.

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EXECUTIVE OFFICERS

Mark D. Perrin is our Chief Executive Officer and Chairman of the Board. Please see "Information as to our Board of Directors and Nominees" above for biographical information regarding Mr. Perrin.

Steven F. McAllister, 57, has served as our Chief Financial Officer since June 2014, after joining our company as interim Chief Financial Officer in December 2013. Prior to joining our company, Mr. McAllister served as Vice President of Finance and Administration for the Spine and Bone Healing Technologies division of Biomet, Inc. from September 2007 to March 2013. While at Biomet, he was responsible for all accounting, finance, IT, facilities and insurance operations activities in addition to leading the company's strategic planning initiatives. Prior to Biomet, Mr. McAllister worked for DePuy, Inc., a Johnson & Johnson Company, from 1999 to 2007, in various capacities of increasing responsibility including Controller Marketing Finance, Director of Finance Worldwide Spine, and Director of Finance Worldwide Operations. Prior to DePuy, Mr. McAllister held various financial roles with Pfizer's medical device business from 1984 to 1999. Mr. McAllister holds a B.S. in Accounting from Fairleigh Dickinson University.

Tamara L. Joseph, 53, has served as our Senior Vice President, General Counsel and Chief Compliance Officer since March 2014, after beginning to work as an independent consultant to our company in September 2013. Ms. Joseph was appointed as an independent director of the public health non-profit PHFE in February 2013. She is the Chair of PHFE's Governance and Nominating Committee and is a member of its Audit Committee. She previously served as Senior Vice President, General Counsel of Cubist Pharmaceuticals, Inc. from April 2008 to October 2012, where she was responsible for the law, compliance, risk management and government affairs departments. Prior to that, she served as Executive Vice President, General Counsel of Mayne Pharma Ltd., from 2006 to 2008. Before that, Ms. Joseph served as Vice President, General Counsel of Transkaryotic Therapies, Inc., and from 1998 to 2005, Ms. Joseph led the Biogen Idec legal department's operations outside the United States as Vice President, International Legal. Ms. Joseph began her legal career as a litigator with Fried, Frank, Harris, Shriver & Jacobson and later with Morrison & Foerster. Ms. Joseph has an A.B. in Economics from Duke University, a J.D. from University of Michigan Law School, an L.L.M. degree in European Community Law from the College of Europe in Belgium and an L.L.M. degree in Civil Law from the University of Paris.

Lorianne Masuoka, M.D., 54, has served as our Chief Medical Officer since March 2015. Prior to joining our company, Dr. Masuoka served as Senior Vice President and Chief Medical Officer of Cubist Pharmaceuticals, Inc. from July 2013 to January 2015. As a member of Cubist's executive management team, she managed clinical research, drug safety, biostatistics and data management, and clinical operations. Prior to her time at Cubist, Dr. Masuoka served in various roles of increasing responsibility at Nektar Therapeutics from August 2008 until August 2011, ultimately serving as its Senior Vice President and Chief Medical Officer. She served as Vice President, Clinical Development at FivePrime Therapeutics from July 2003 until August 2008. Prior to then, she served as Director, Clinical Development, Oncology at Chiron. Dr. Masuoka has a M.D. from the University of California, Davis, where she also completed her residency in neurology. She completed her epilepsy fellowship at Yale University and has a board certification from the American Board of Psychiatry and Neurology (Neurology).

Thomas Ulich, M.D., 62, has served as our Chief Scientific Officer since February 2014. Prior to joining our company following an extended sabbatical, Dr. Ulich served as Executive Vice President of Research and Development of ConjuChem Biotechnologies, Inc. from 2006 to July 2010. In 2010, ConjuChem filed a voluntary assignment in bankruptcy under the Canadian Bankruptcy and Insolvency Act in order to effect an orderly liquidation of its assets, property and operations. Prior to 2006, he served as Senior Vice President of Research and Development for Alnylam Pharmaceuticals, Inc. from

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2003 to 2004. He was Vice President of Preclinical Development at Protein Therapeutics from 2001 to 2003, and was Vice-President of Preclinical Development at Amgen, Inc. from 1993 to 2001. While at Amgen, he was responsible for the Departments of Pharmacology, Toxicology, Preclinical and Clinical Pharmacokinetics, Protein and Small Molecule Formulation Development, Clinical Immunology, GLP Quality, and Protein Sciences. Dr. Ulich has a B.A. from Dartmouth College, an M.D. and A.P./C.P. Pathology Residency from UCLA Medical School, and completed his post-doctoral fellowships at the Scripps Institute for Immunology in La Jolla, CA. He has medical board certification from the American Board of Anatomic Pathology, the American Board of Clinical Pathology, and the American Board of Immunopathology. Dr. Ulich was a Professor of Pathology at the University of California from 1984 to 1993, and at Wayne State University from 2005 to 2006.

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COMPENSATION DISCUSSION AND ANALYSIS

Executive Summary

This Compensation Discussion and Analysis explains our compensation philosophy, objectives, policies and practices with respect to our Chief Executive Officer and our other named executive officers. For 2015, our named executive officers are:

Mark D. Perrin, our Chief Executive Officer and Chairman of the Board;

Steven F. McAllister, our Chief Financial Officer;

Tamara L. Joseph, our Senior Vice President, General Counsel and Chief Compliance Officer;

Thomas Ulich, M.D., our Chief Scientific Officer; and

Lorianne K. Masuoka, M.D., our Chief Medical Officer.

All share and share-based numbers in this Compensation Discussion and Analysis reflect the company's one-for-four reverse stock split effected on April 8, 2015.

Company Performance in 2015. 2015 was an exciting year for our company. During 2015, while we did not achieve all of the goals we set for the year, we made important progress and achievements toward our goal of improving the quality-of-life, and redefining life, for the spinal cord injury patients we serve, including:

Experienced leadership team in place Organizational Change we now have an experienced, senior leadership team in place to drive value of company's assets.

Meaningful scientific and clinical progress our INSPIRE Study was approved by the FDA, which allowed us to convert our pilot study into pivotal probable benefit study. In addition, the first three of five patients implanted with our Neuro-Spinal Scaffold have shown various degrees of neurological recovery. We have also significantly increased our publications and presentations at major scientific meetings.

Expanded intellectual property portfolio we were granted two major U.S. patents covering the Neuro-Spinal Scaffold, and we entered into agreements with UCSD and Dr. James Guest to establish intellectual property foundation for our Bioengineered Neural Trails research.

Additional capital raising activities we raised net proceeds of approximately \$34.4 million through one financing and as a result of warrant and stock option exercises. We also established a \$50 million at-the-market (ATM) facility with Cowen and Company, LLC. The ATM was subsequently terminated in March 2016.

Executive Compensation Actions in 2015. In 2015, the Compensation Committee continued to compensate its executive officers based on achievement of certain key company objectives, as well as individual objectives, with its annual bonus program, and also undertook a review of the total compensation paid to our executive officers to better align our company's executive compensation programs with those of our peer group companies. As a result of the Compensation Committee's review of our executive compensation programs in June 2015, the salaries and target annual bonus opportunities for some of our named executive officers were increased. Based on the achievements of our company in 2015, our named executive officers received between 96.25% and 103.75% payouts under our annual bonus program, as further described below. Our annual equity grants to named executive officers, awarded in December 2015, were also designed to further align the total compensation paid to

our named executive officers with that of our peers.

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Compensation Philosophy and Objectives

The primary objectives of our executive compensation program are to attract, motivate, retain and reward high-quality executives, to compensate our executives for meeting performance-based goals and to align the interests of our executives with our stockholders by having equity-based compensation as an important portion of our executives' total compensation.

As part of our overall compensation philosophy, we target the 25th percentile of our peer group companies for target cash compensation to our executive officers, and the median of our peer group companies for their total direct compensation (cash plus equity-based compensation). Our annual bonus program is based on the achievement of certain corporate performance goals and, in the case of our named executive officers other than our Chief Executive Officer, individual performance goals. In doing so, we are able to deploy more of our cash resources to advancing our clinical development programs while providing executives with strong equity opportunities, further linking their interests with those of our stockholders. In addition to aligning our compensation practices for our named executive officers with comparable companies in our industry, we also seek to have an executive compensation structure that is fair relative to other professionals within our company. Our objective is to foster a performance-oriented culture, where individual performance is aligned with business objectives and the creation of long-term stockholder value.

Role of the Compensation Committee

The Compensation Committee determines, or recommends to the Board for approval, the compensation of our Chief Executive Officer and all other executive officers, administers our incentive compensation and stock plans and oversees our employee benefit plans. Our Compensation Committee is appointed by the Board, and consists entirely of directors who are "independent" under the NASDAQ Listing Rules, "outside directors" for purposes of Section 162(m) of the Internal Revenue Code and "non-employee directors" for purposes of Rule 16b-3 under the Exchange Act. Our Compensation Committee is currently composed of Mr. DiPietro and Drs. Marshak and Roberts.

Our Compensation Committee was formed in June 2015, when our Governance, Nominating & Compensation ("GNC") Committee recommended to the Board, and the Board approved, the separation of the GNC Committee into two standing committees: the Nominating and Corporate Governance Committee and the Compensation Committee. Prior to then, the GNC Committee was responsible for approving and administering our executive compensation and benefits policies. For purposes of this Compensation Discussion and Analysis, references to the "Compensation Committee" include its predecessor, the GNC Committee.

Compensation Setting Process

The Compensation Committee reviews and recommends to our Board the compensation of our Chief Executive Officer and reviews and determines, with input from management, the compensation of our other executive officers, including our named executive officers. This review is based on an evaluation of each officer's performance, corporate goals and objectives, and such other information as the Compensation Committee may request, including surveys of executive compensation practices at comparable companies.

Role of our Management

Our Chief Executive Officer and our human resources and finance departments work together to develop and prepare materials requested by and to be presented to the Compensation Committee, including analyses of financial data, peer data comparisons and other briefing materials. Our Chief Executive Officer and our human resources director typically present the compensation proposals for our named executive officers (other than our Chief Executive Officer), along with any background

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information, to the Compensation Committee for review and consideration. The Compensation Committee may approve, modify, or reject those proposals, or may request additional information from management on those matters. Our Chief Executive Officer does not attend any portion of meetings at which his compensation is determined.

Role of Independent Compensation Consultant

Pursuant to its charter, the Compensation Committee has the authority to select and retain independent compensation consultants or advisors, at our expense, to assist it with carrying out its duties and responsibilities. In early 2015, the Compensation Committee retained Towers Watson as its compensation consultant. The Compensation Committee considered Towers Watson to be independent and that no conflict of interest resulted from retaining Towers Watson during 2015. Towers Watson advised the Compensation Committee on matters related to competitive assessments of our outside directors compensation program and executive compensation as compared to prevailing market practices and comparable companies. Towers Watson reported directly to the chairman of the Compensation Committee, took direction from the Compensation Committee, and did not provide us with any services other than the services provided at the request of the Compensation Committee. In November 2015, the Compensation Committee engaged Pearl Meyer to replace Towers Watson. Pearl Meyer prepared a competitive assessment of cash and equity components of executive compensation.

Competitive Market Assessment

On an annual basis, the Compensation Committee reviews, with its compensation consultant, relevant market benchmarks for its executive compensation. The Compensation Committee uses this information to ensure that it is acting on an informed basis and to establish points of reference to determine whether and to what extent it is establishing competitive levels of compensation for our named executive officers.

In early 2015, at the request of the Compensation Committee, Towers Watson reviewed the "peer group" companies utilized by the Compensation Committee and conducted a competitive market assessment of our executive compensation program for our named executive officers.

For 2015 compensation decisions, the Compensation Committee considered compensation information of peer group public companies in the biotechnology and pharmaceutical industries. The criteria for selection of the companies in the peer group included the size of a company, its business development stage, and how recently a company has become publicly owned. All companies in the peer group have less than 300 employees and a primary industry focus of pharmaceutical products, diagnostic substances, or therapeutic preparations, with most peers having products in the preclinical to phase II product development stages. Companies were selected with various revenue sizes because we are recruiting from and competing for executive talent with companies that are generating revenue. For 2015, the peer group companies consisted of:

| | |
|-------------------------------|-----------------------------|
| Acceleron Pharma, Inc. | Epizyme, Inc. |
| Agenus Inc. | Flexion Therapeutics, Inc. |
| Akebia Therapeutics, Inc. | Genocea Biosciences, Inc. |
| BIND Therapeutics, Inc. | Idera Pharmaceuticals, Inc. |
| bluebird bio, inc. | Neuralstem, Inc. |
| Cerulean Pharma Inc. | OvaScience, Inc. |
| Curis, Inc. | Sarepta Therapeutics, Inc. |
| Dicerna Pharmaceuticals, Inc. | Synta Pharmaceuticals Corp. |
| Eleven Biotherapeutics, Inc. | Verastem, Inc. |
| Enanta Pharmaceuticals, Inc. | ZIOPHARM Oncology, Inc. |

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The Compensation Committee also considered additional market data provided by Towers Watson and Pearl Meyer.

Elements of Executive Compensation Program

Generally, our executive compensation program consists of five components: base salary, annual bonus incentives, long-term equity incentives, benefits and severance or termination protection.

Base Salary. Base salary is the primary fixed component of our executive compensation program. The Compensation Committee believes that a competitive base salary is necessary to attract and subsequently retain a management team with the requisite skills to lead our company. The Compensation Committee typically reviews salaries for potential adjustments in December of each fiscal year, and may make adjustments at other times as needed. Generally, our Compensation Committee believes that adjustments to base salary should reflect the responsibilities of the executive, the executive's performance for the preceding year, demand in the market for the particular executive position, and the pay of the other members of the executive team, as well as targeting our cash compensation at the 25th percentile of our peer group companies. Base salaries for our named executive officers are further described below.

Annual Incentive Bonus Plan. An annual incentive bonus plan for our named executive officers is an ongoing part of our named executive officers' compensation as a means of providing performance-based incentives that motivate and reward achievement of corporate and individual performance goals. Goals under the annual incentive bonus plan are set at the beginning of each year that are appropriate in light of our business plans, and take into consideration our financial, operational and strategic priorities. Currently, payouts under our annual incentive bonus plan to our Chief Executive are based on the achievement of corporate performance goals, and, for other our named executive officers, payouts are based on a combination of corporate performance goals and individual performance goals. Individual performance goals for our named executive officers, other than our Chief Executive Officer, are determined with input from our Chief Executive Officer and are intended to measure our executive officers' achievement of specific projects. At the end of each year, the Compensation Committee determines the degree to which individual objectives have been met, and the Board determines the degree to which corporate performance objectives have been met and the associated payouts to each named executive officer. The Compensation Committee may grant bonuses that are above, at, or below the target bonus based on the level of achievement if it determines that such bonuses are warranted and are in the best interests of our company and our stockholders. Goals, results and approved payouts under our annual incentive plan for 2015 are further described below.

Long-Term Equity Incentives. The Compensation Committee awards equity incentive compensation to our named executive officers, consistent with the practices of peer group companies. These awards aim to align the interests of our executive officers with those of our stockholders to create long-term stockholder value, as well as motivate and retain talented executives.

Our named executive officers are eligible to receive annual equity awards, although an annual award is not guaranteed. Individual determinations are made by the Compensation Committee with respect to the frequency and size of the equity award to be recommended to be granted to the named executive officers. In making these determinations, the Compensation Committee considers performance relative to the strategic and financial objectives of our company and the individual performance of each named executive officer. Our equity awards generally vest over a four-year period, with 25% vesting on the first anniversary of the date of grant and thereafter on a monthly basis in 36 equal installments. At the time of hire, we provided our named executive officers with an equity incentive award in the form of stock options.

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We currently grant stock options because we believe stock options are consistent with the risk profile of a pre-commercial company. We review our program annually to determine the appropriate form and terms of awards given the business strategy.

Benefits and Perquisites. We provide the following benefits to our named executive officers generally on the same basis as the benefits provided to all employees: medical, dental and vision insurance, including an FSA option, life insurance, short and long-term disability, and certain commuting expenses. We also match, in the form of shares of our common stock, contributions to our 401(k) profit sharing plan, in amounts up to 5% of each named executive officer's annual compensation. Our matching contributions become 100% vested after the employee has been employed by us for four years. In addition, in 2015 we adopted, and our stockholders approved, an employee stock purchase plan to allow our employees to purchase shares of our common stock at a discount using after-tax payroll deductions. We may also provide additional benefits or perquisites under contractual agreements to our named executive officers, including housing allowances and commuting expenses.

Severance/Termination Benefits. Under contractual agreements with our named executive officers, we have agreed to provide severance payments in connection with termination of the executive, including in connection with a change in control. These arrangements are described in the Executive Compensation section under "Potential Payments upon Termination or Change in Control."

Compensation Decisions for 2015

Base Salaries. The initial base salaries of our named executive officers were determined upon each officer's hire based on such officer's industry experience, expertise and demand within our industry, and may be adjusted from time to time following hiring. In June 2015, following a review of its compensation practices and to more closely align named executive officers' cash compensation with our peer group companies, the Compensation Committee approved increases in the base salary of its named executive officers as follows: (i) Mr. Perrin's base salary increased from \$413,000 to \$430,000, (ii) Mr. McAllister's base salary increased from \$271,000 to \$285,000 and (iii) Dr. Ulich's base salary increased from \$312,000 to \$325,000. The Compensation Committee also approved an increase in Ms. Joseph's base salary to \$248,000 in connection with her entry into an employment agreement with the company and the expansion of her part-time role from 3.5 days per week to 4.0 days per week. Please see the Summary Compensation Table below for the actual amounts paid to our named executive officers in 2015.

Annual Incentive Bonuses. All of our named executive officers were eligible to participate in our fiscal 2015 incentive bonus plan, which consisted of corporate objectives and, for our named executive officers other than our Chief Executive Officer, individual objectives. For our named executive officers other than our Chief Executive Officer, the 2015 bonus was weighted 75% to achievement of corporate objectives and 25% to achievement of individual objectives. For our Chief Executive Officer, the 2015 bonus was weighed 100% to achievement of corporate objectives. The 2015 corporate objectives and

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weightings recommended by the Compensation Committee and approved by the Board in 2015, and the actual weightings achieved as determined by the Board for 2015 performance, were as follows:

| Objective | Target Weighting | Credit Received |
|--|------------------|-----------------|
| 1. Complete patient enrollment in pilot study | 20% | 30% |
| 2. FDA Approval of Pivotal Study Design | 15% | 20% |
| 3. Close strategic acquisition | 15% | 0% |
| 4. Identify stem cell product profile and use preclinical data from small and large animal models to make go/no go decision on further product development | 10% | 15% |
| 5. Up-list to major exchange and stock performance relative to NASDAQ biotech index | 15% | 15% |
| 6. Finance the strategy to achieve 2 years of operating funds | 25% | 20% |
| Total | 100% | 100% |

The corporate objectives were set with a reasonable level of difficulty that required our named executive officers to perform at a high level to meet the objectives, and the likelihood of attaining the objectives was not assured. The Board has full discretion with respect to the amount and payment of bonuses, including adjustments to the objectives, weightings and actual amounts and payout terms of the annual bonuses. This discretion is communicated to the executives. In December 2015, the Compensation Committee reviewed and discussed the company's performance with our Chief Executive Officer, carefully evaluated the results relative to the objectives, and recommended the levels of attainment for each objective as shown above, which was subsequently approved by the Board.

In mid-2015, following a review of the total compensation of its executive officers with its compensation consultant, the Compensation Committee approved increases in the targeted amount of incentive bonuses to be paid to named executive officers, other than our Chief Executive Officer, to more closely align our named executive officers' compensation with market practices. The target bonus for named executive officers other than our Chief Executive Officer were increased from 25% to 35% of the executive's base salary, while our Chief Executive Officer's target bonus remained at 50% of his base salary.

In December 2015, the Compensation Committee additionally assessed the degree to which individual objectives under the 2015 bonus plan were achieved, with input from the Chief Executive Officer with respect to the other named executive officers. Based on its review, the Compensation Committee (and the Board, in the case of the Chief Executive Officer) awarded the following bonus payments:

| Named Executive Officer | Cash Bonus (\$) | Percentage of Target (%) |
|-------------------------|-----------------|--------------------------|
| Mark Perrin | 215,000 | 100 |
| Steven McAllister | 99,750 | 100 |
| Tamara Joseph(1) | 85,715 | 98.75 |
| Thomas Ulich | 118,016 | 103.75 |
| Lorianne Masuoka(2) | 91,232 | 96.25 |

(1) Amount reflected is pro-rated based on Ms. Joseph's part-time schedule.

(2) Amount reflected is pro-rated based on Dr. Masuoka's appointment as CMO on March 2, 2015.

Long-Term Equity Incentive Awards. We use equity awards to reward long-term value creation and as a retention tool. The size of the equity awards approved by our Compensation Committee for each

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named executive officer reflects individual contributions to company performance and competitive positioning relative to market. The long-term equity awards granted in 2015 to our named executive officers were comprised of stock option awards.

In March 2015, the Compensation Committee granted Dr. Masuoka a stock option award to purchase 125,000 shares of common stock in connection with her initial hire, as further described below. In July 2015, the Compensation Committee granted Ms. Joseph a option grant to purchase 12,500 shares of our common stock in connection with her expanded time commitment to service from 3.5 days per week to 4.0 days per week. The awards to Dr. Masouka and Ms. Joseph vest over a four-year period, with 25% vesting on the first anniversary of the grant date and the remainder vesting monthly in equal installments until fully vested on the fourth anniversary of the grant date, provided that the executive remains continually employed by the company on each such vesting date.

Grant decisions on annual equity awards awarded to our named executive officers were made in December 2015 and were based on company and individual performance in 2015, expected future individual performance, retention considerations and market data provided by our compensation consultant. In 2015, the Compensation Committee awarded stock options to our named executive officers, other than our Chief Executive Officer, and the Board awarded stock options to our Chief Executive Officer, as follows:

| Named Executive Officer | Stock Options (#) |
|-------------------------|----------------------|
| Mark Perrin | 172,570 |
| Steven McAllister | 71,900 |
| Tamara Joseph | 92,040 |
| Thomas Ulich | 115,050 |
| Lorianne Masuoka | 115,050 |

Arrangements with Named Executive Officers

Mark Perrin, Chief Executive Officer. Under our employment agreement with Mr. Perrin, Mr. Perrin received an initial annual base salary of \$400,000, subject to adjustment from time to time, and is eligible to receive an annual cash bonus equal to 50% of his annual salary, subject to his performance of specified objectives to be established by the Board (or a designated Board committee) each year. Mr. Perrin is eligible to receive all medical, dental and other benefits to the same extent as provided to other senior management employees. In connection with his relocation to the Boston area, we agreed to arrange up to 12 months of corporate housing for Mr. Perrin, and we have extended this corporate housing benefit through January 2017, such amount to be subject to a tax gross up. We also reimbursed Mr. Perrin \$20,000 for moving expenses. Mr. Perrin received an initial option grant to purchase 500,000 shares of our common stock. This initial hire grant vests over a four-year period, with 25% vesting on the first anniversary of the grant date and the remainder vesting monthly in 36 equal installments until fully vested on the fourth anniversary of the grant date. Mr. Perrin is currently eligible for certain severance benefits under his employment agreement. In July 2015, we amended our agreement with Mr. Perrin with respect to severance, as described in more detail under the heading "Potential Payments Upon Termination or Change of Control."

Steven McAllister, Chief Financial Officer. In conjunction with his transition into a permanent role with our company in June 2014, we entered into a second amended and restated employment agreement with Mr. McAllister, which replaced the prior employment agreement between us and Mr. McAllister. Under the terms of his agreement, Mr. McAllister received an initial annual base salary of \$265,000, subject to adjustment from time to time, and is eligible to receive benefits to the same extent as provided to our other senior management employees, including medical and dental benefits. In addition, Mr. McAllister was eligible to receive an annual target bonus equal to 25% of his annual

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salary, subject to his performance of specified objectives to be established by our Chief Executive Officer each year. He also received a 10-year stock option grant to purchase 62,500 shares of our common stock. This option vests over a four-year period, with 25% vesting on the first anniversary of the grant date and the remainder vesting monthly in 36 equal installments until fully vested on the fourth anniversary of the grant date, provided that Mr. McAllister remains continuously employed by us on each such vesting date. Mr. McAllister is currently eligible for certain severance benefits under his employment agreement. In July 2015, we amended our agreement with Mr. McAllister to increase his annual target bonus to 35% of his annual salary and modify the severance provisions, as described in more detail under the heading "Potential Payments Upon Termination or Change of Control."

Tamara Joseph, Senior Vice President, General Counsel and Chief Compliance Officer. In conjunction with her expanded role with the company in August 2015, we entered into an employment agreement with Ms. Joseph, which replaced the terms of an offer letter dated March 14, 2014 which previously governed the terms of Ms. Joseph's employment with the company. Under the terms of her agreement, Ms. Joseph receives an initial annual base salary of \$248,000, subject to adjustment from time to time, and is eligible to receive benefits to the same extent as provided to our other senior management employees, including medical and dental benefits. In addition, Ms. Joseph is eligible to receive an annual target bonus equal to 35% of her annual salary, subject to her performance of specified objectives to be established by our Chief Executive Officer each year. She also received, (a) in connection with her initial offer letter, a 10-year stock option grant to purchase 75,000 shares of our common stock, and (b) in connection with her employment agreement, a 10-year stock option grant to purchase 12,500 shares of our common stock. These grants vest over a four-year period, with 25% vesting on the first anniversary of the grant date and the remainder vesting monthly in 36 equal installments until fully vested on the fourth anniversary of the applicable grant date, provided that Ms. Joseph remains continuously employed by us on each such vesting date. Ms. Joseph is currently eligible for certain severance benefits as described in more detail under the heading "Potential Payments Upon Termination or Change of Control."

Thomas Ulich, Chief Scientific Officer. We entered into an employment agreement with Dr. Ulich in July 2015, which replaced the terms of an offer letter dated February 20, 2014 which previously governed the terms of Dr. Ulich's employment with the company. Under the terms of his agreement, Dr. Ulich received an initial annual base salary of \$325,000, subject to adjustment from time to time, and is eligible to receive benefits to the same extent as provided to our other senior management employees, including medical and dental benefits. We agreed to reimburse Dr. Ulich for commuting expenses related to travel between his home in New York and our headquarters. In addition, Dr. Ulich is eligible to receive an annual target bonus equal to 35% of his annual salary, subject to his performance of specified objectives to be established by our Chief Executive Officer each year. He also received a 10-year stock option grant to purchase 87,500 shares of our common stock. This initial hire grant vests over a four-year period, with 25% vesting on the first anniversary of the grant date and the remainder vesting monthly in 36 equal installments until fully vested on the fourth anniversary of the grant date, provided that Dr. Ulich remains continuously employed by us on each such vesting date. Dr. Ulich is currently eligible for certain severance benefits as described in more detail under the heading "Potential Payments Upon Termination or Change of Control."

Lorianne Masuoka, Chief Medical Officer. We entered into an employment agreement with Dr. Masuoka in January 2015. Under the terms of her agreement, Dr. Masuoka received an initial annual base salary of \$310,000, subject to adjustment from time to time, and is eligible to receive benefits to the same extent as provided to our other senior management employees, including medical and dental benefits. In addition, Dr. Masuoka was eligible to receive an annual target bonus equal to 25% of her annual salary, subject to her performance of specified objectives to be established by our Chief Executive Officer each year. She also received a 10-year stock option grant to purchase 125,000 shares of our common stock. This option vests over a four-year period, with 25% vesting on the first

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anniversary of the grant date and the remainder vesting monthly in 36 equal installments until fully vested on the fourth anniversary of the grant date, provided that Dr. Masuoka remains continuously employed by us on each such vesting date. Dr. Masuoka is currently eligible for certain severance benefits under her employment agreement. In July 2015, we amended our agreement with Dr. Masuoka to increase her annual target bonus to 35% of her annual salary and modify the severance provisions, as described in more detail under the heading "Potential Payments Upon Termination or Change of Control."

COMPENSATION COMMITTEE REPORT

The Compensation Committee has reviewed and discussed with management the Compensation Discussion and Analysis included in this proxy statement. Based on those reviews and discussions, the Compensation Committee has recommended to the Board that the Compensation Discussion and Analysis be included in this proxy statement for filing with the Securities and Exchange Commission.

COMPENSATION COMMITTEE

Kenneth DiPietro, Chairman

Daniel Marshak

Richard Roberts

The information contained in the foregoing report shall not be deemed to be "soliciting material" or "filed" or incorporated by reference into any of our previous or future filings with the SEC, or subject to the liabilities of Section 18 of the Exchange Act, except to the extent specifically incorporated by reference into a document filed under the Securities Act or the Exchange Act.

Table of Contents**EXECUTIVE COMPENSATION**

Set forth below is information regarding the compensation of (i) all persons serving as our Chief Executive Officer or Chief Financial Officer at any time during 2015 and (ii) our other most highly compensated executive officers at the end of 2015. Such officers are collectively referred to as our "named executive officers."

Summary Compensation Table

The following table sets forth information regarding the compensation awarded to, earned by, or paid to the named executive officers.

| Name and Principal Position | Year | Salary (\$) | Stock Awards (\$)(1) | Option Awards (\$)(1) | Non-Equity Incentive | | Total (\$) |
|---|------|----------------|----------------------------|-----------------------------|------------------------------|-----------------------------------|---------------|
| | | | | | Plan Compensation (\$) | All Other Compensation (\$) | |
| Mark Perrin | 2015 | 421,395 | | 1,083,088 | 215,000 | 200,618(2) | 1,920,101 |
| <i>Chief Executive Officer and Chairman of the Board</i> | 2014 | 392,308 | 60,000 | 4,628,496 | 140,000 | 161,557 | 5,382,361 |
| Steven McAllister | 2015 | 277,992 | | 452,319 | 99,750 | 13,531(3) | 843,592 |
| <i>Chief Financial Officer</i> | 2014 | 262,692 | 19,875 | 305,300 | 106,375 | 12,850 | 707,092 |
| | 2013 | 1,000 | | | | | 1,000 |
| Lorianne Masuoka | 2015 | 269,807 | | 2,032,874 | 91,232 | 13,622(5) | 2,407,534 |
| <i>Chief Medical Officer(4)</i> | | | | | | | |
| Thomas Ulich | 2015 | 318,643 | | 722,345 | 118,016 | 68,505(6) | 1,227,509 |
| <i>Chief Scientific Officer</i> | 2014 | 201,231 | 22,500 | 1,015,924 | 52,500 | 47,431 | 1,339,586 |
| Tamara Joseph | 2015 | 231,998 | | 734,138 | 85,715 | 14,770(8) | 1,066,621 |
| <i>Senior Vice President, General Counsel and Chief Compliance Officer(7)</i> | 2014 | 133,333 | 16,200 | 622,587 | 37,800 | 8,832 | 818,752 |

- (1) The amounts shown in these columns represent the aggregate grant date fair value of awards computed in accordance with FASB Accounting Standards Codification Topic 718, not the actual amounts paid to or realized by the named executive officer during 2015. The assumptions used in determining grant date fair value of these awards are set forth in Note 12 to our Consolidated Financial Statements appearing in our Annual Report on Form 10-K for the year ended December 31, 2015 filed with the SEC on March 4, 2016.
- (2) Represents (i) \$84,032 in housing expenses (rent and furniture); (ii) \$92,346 for a tax gross-up for housing expenses; (iii) \$21,070 in 401(k) company stock matching contributions under our 401(k) profit sharing plan; and (iv) \$3,170 in commuting expenses.
- (3) Represents (i) \$10,063 in 401(k) company stock matching contributions under our 401(k) profit sharing plan; and (ii) \$3,468 in commuting expenses.
- (4) Dr. Masuoka joined our company as our Chief Medical Officer effective March 2, 2015.
- (5) Represents (i) \$10,452 in 401(k) company stock matching contributions under our 401(k) profit sharing plan; and (ii) \$3,170 in commuting expenses.
- (6)

Represents \$68,505 in commuting expenses.

- (7) Ms. Joseph works on a part-time basis, 4 days/week effective July 2015.
- (8) Represents (i) \$11,600 in 401(k) company stock matching contributions under our 401(k) profit sharing plan; and (ii) \$3,170 in commuting expenses.

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

The following table provides information regarding grants of plan-based awards to our named executive officers during 2015. All share and share-based numbers and values in this table reflect the company's one-for-four reverse stock split effected on April 8, 2015.

| Name | Grant Date | Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1) | | | All Other Option Awards: Number of Securities Underlying Options (#)(2) | Exercise or Base Price of Option Awards (\$/Sh) | Grant Date Fair Value of Stock and Option Awards (\$)(3) |
|---------------------|------------|---|----------------|-----------------|--|--|---|
| | | Threshold (\$) | Target (\$) | Maximum (\$) | | | |
| Mark Perrin | 12/10/2015 | | 215,000 | | 172,570 | 7.37 | 1,083,088 |
| Steven McAllister | 12/10/2015 | | 99,750 | | 71,900 | 7.37 | 452,319 |
| Lorianne Masuoka | 3/2/2015 | | | | 125,000 | 12.08 | 1,311,282 |
| | 12/10/2015 | | 108,500 | | 115,050 | 7.37 | 721,592 |
| Thomas Ulich | 12/10/2015 | | 113,750 | | 115,050 | 7.37 | 722,345 |
| Tamara Joseph | 7/31/2015 | | | | 12,500 | 14.55 | 156,314 |
| | 12/10/2015 | | 86,800 | | 92,040 | 7.37 | 577,824 |

- (1) There were no set "Threshold" or "Maximum" performance bonus amounts established with respect to our 2015 incentive bonus plan. The actual amounts paid to each of the executive officers for 2015 are set forth in the Summary Compensation Table under the column entitled "Non-equity Incentive Plan Compensation."
- (2) Each option award vests 25% on the first anniversary and 1/36 per month thereafter for thirty six months.
- (3) The amounts shown in this column represents the aggregate grant date fair value of awards computed in accordance with FASB Accounting Standards Codification Topic 718. The assumptions used in determining grant date fair value of these awards are set forth in Note 12 to our Consolidated Financial Statements appearing in our Annual Report on Form 10-K for the year ended December 31, 2015 filed with the SEC on March 4, 2016.

Option Exercises and Stock Vested Table

None of our named executive officers exercised stock options or had stock awards vest during the fiscal year ended December 31, 2015.

Outstanding Equity Awards at Fiscal Year End

The following table summarizes the equity awards made to our named executive officers that were outstanding at December 31, 2015. All share and share-based numbers and values in this table reflect

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the company's one-for-four reverse stock split effected on April 8, 2015. Each option award reflected in the below table vests 25% on the first anniversary and 1/36 per month thereafter for thirty six months.

| Name | Award Grant Date | Option Awards | | Option Exercise Price | Option Expiration Date |
|-------------------|------------------|--|--|-----------------------|------------------------|
| | | No. of Securities Underlying Unexercised Options (#) Exercisable | No. of Securities Underlying Unexercised Options (#) Unexercisable | | |
| Mark Perrin | 1/6/2014 | 239,587 | 260,413 | 9.40 | 1/6/2024 |
| | 12/10/2014 | 31,250 | 93,750 | 4.20 | 12/10/2024 |
| | 12/10/2015 | | 172,570 | 7.37 | 12/10/2025 |
| Steven McAllister | 6/19/2014 | 23,439 | 39,061 | 4.52 | 6/19/2024 |
| | 12/10/2014 | 3,907 | 11,718 | 4.20 | 12/10/2024 |
| | 12/10/2015 | | 71,900 | 7.37 | 12/10/2025 |
| Lorianne Masuoka | 3/02/2015 | | 125,000 | 12.08 | 3/02/2025 |
| | 12/10/2015 | | 115,050 | 7.37 | 12/10/2025 |
| Thomas Ulich | 2/24/2014 | 40,105 | 47,395 | 9.32 | 2/24/2024 |
| | 12/10/2014 | 20,313 | 60,937 | 4.20 | 12/10/2024 |
| | 12/10/2015 | | 115,050 | 7.37 | 12/10/2025 |
| Tamara Joseph | 3/24/2014 | 32,817 | 42,183 | 7.52 | 3/24/2024 |
| | 12/10/2014 | 8,594 | 25,871 | 4.20 | 12/10/2024 |
| | 7/31/2015 | | 12,500 | 14.55 | 7/31/2025 |
| | 12/10/2015 | | 92,040 | 7.37 | 12/10/2025 |

Pension Benefits

We do not offer to our executive officers or employees any pension plan or similar plan that provides for payments or other benefits at, following or in connection with retirement.

Non-Qualified Deferred Compensation

We do not offer to our executive officers or employees any defined contribution or similar plan that provides for the deferral of compensation on a basis that is not tax-qualified. We offer a 401(k) profit sharing plan to all of our employees eligible to participate. We make matching contributions on behalf of participating employees, in the form of shares of our common stock, up to a maximum of 5% of the employee's annual compensation. Our matching contributions become 100% vested after the employee has been employed by us for four years. Any company matching contributions made to our named executive officers are reflected in the "All Other Compensation" column of the Summary Compensation Table above.

Potential Payments Upon Termination or Change in Control

Certain of our named executive officers are entitled to payments upon a termination of employment or a change in control.

Mark Perrin, Chief Executive Officer. Under our employment agreement with Mr. Perrin, as amended, if his employment is terminated by us without cause, or by Mr. Perrin for "good reason," in the absence of a "change in control" (as defined in our 2015 Equity Incentive Plan) then (i) we are obligated to pay severance (consisting of base salary in effect at the time of termination) to Mr. Perrin for a period of 18 months, plus continued health insurance benefits for a period of 6 months and (ii) the unvested portion of any stock options held by him will vest fully. If Mr. Perrin's employment is terminated by us without cause, or by Mr. Perrin for "good reason" within 12 months of a "change in

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control," then (a) we are obligated to pay severance (consisting of 2.0 times base salary in effect at the time of termination and 100% of his target annual bonus) to Mr. Perrin, plus continued health insurance benefits for a period of one year, and (b) the unvested portion of any stock options held by him will vest fully. The severance payments and the accelerated vesting of options are contingent on execution of a general release of claims against our company, and are in addition to any accrued obligations to Mr. Perrin unpaid by us prior to the time of termination.

Steven McAllister, Chief Financial Officer. Under our employment agreement with Mr. McAllister, as amended, if his employment is terminated by us without cause, or by Mr. McAllister for "good reason," in the absence of a "change in control" (as defined in our 2015 Equity Incentive Plan) then we are obligated to pay severance (consisting of base salary in effect at the time of termination) to Mr. McAllister for a period of one year, plus continued health insurance benefits for a period of 6 months. If Mr. McAllister's employment is terminated by us without cause, or by Mr. McAllister for "good reason" within 12 months following a "change in control," then (i) we are obligated to pay severance (consisting of 1.5 times base salary in effect at the time of termination and 100% of his target annual bonus) to Mr. McAllister, plus continued health insurance benefits for a period of one year, and (ii) the unvested portion of any stock options held by him will vest fully. The severance payments and the accelerated vesting of options are contingent upon execution of a general release of claims against our company, and are in addition to any accrued obligations to Mr. McAllister unpaid by us prior to the date of termination.

Tamara Joseph, Senior Vice President, General Counsel and Chief Compliance Officer. Under our employment agreement with Ms. Joseph, if her employment is terminated by us without cause, or by Ms. Joseph for "good reason," in the absence of a "change in control" (as defined in our 2015 Equity Incentive Plan) then we are obligated to pay severance (consisting of base salary in effect at the time of termination) to Ms. Joseph for a period of one year, plus continued health insurance benefits for a period of 6 months. If Ms. Joseph's employment is terminated by us without cause, or by Ms. Joseph for "good reason" within 12 months following a "change in control," then (i) we are obligated to pay severance (consisting of 1.5 times base salary in effect at the time of termination and 100% of her target annual bonus) to Ms. Joseph, plus continued health insurance benefits for a period of one year, and (ii) the unvested portion of any stock option held by her will vest fully. The severance payments and the accelerated vesting of options are contingent upon execution of a general release of claims against our company, and are in addition to any accrued obligations to Ms. Joseph unpaid by us prior to the date of termination.

Thomas Ulich, Chief Scientific Officer. Under our employment agreement with Dr. Ulich, if his employment is terminated by us without cause, or by Dr. Ulich for "good reason," in the absence of a "change in control" (as defined in our 2015 Equity Incentive Plan) then we are obligated to pay severance (consisting of base salary in effect at the time of termination) to Dr. Ulich for a period of one year, plus continued health insurance benefits for a period of 6 months. If Dr. Ulich's employment is terminated by us without cause, or by Dr. Ulich for "good reason" within 12 months following a "change in control," then (i) we are obligated to pay severance (consisting of 1.5 times base salary in effect at the time of termination and 100% of his target annual bonus) to Dr. Ulich, plus continued health insurance benefits for a period of one year, and (ii) the unvested portion of any stock option held by him will vest fully. The severance payments and the accelerated vesting of options are contingent upon execution of a general release of claims against our company, and are in addition to any accrued obligations to Dr. Ulich unpaid by us prior to the date of termination.

Lorianne Masuoka, Chief Medical Officer. Under our agreement with Dr. Masuoka, if her employment is terminated by us without cause, or by Dr. Masuoka for "good reason," in the absence of a "change in control" (as defined in our 2015 Equity Incentive Plan) then we are obligated to pay severance (consisting of base salary in effect at the time of termination) to Dr. Masuoka for a period of

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one year, plus continued health insurance benefits for a period of 6 months. If Dr. Masuoka's employment is terminated by us without cause, or by Dr. Masuoka for "good reason" within 12 months following a "change in control," then (i) we are obligated to pay severance (consisting of 1.5 times base salary in effect at the time of termination and 100% of her target annual bonus) to Dr. Masuoka, plus continued health insurance benefits for a period of one year, and (ii) the unvested portion of any stock option held by her will vest fully. The severance payments and the accelerated vesting of options are contingent upon execution of a general release of claims against our company, and are in addition to any accrued obligations to Dr. Masuoka unpaid by us prior to the date of termination.

Equity Compensation Plan Information

The following table provides certain information about shares of our common stock that may be issued under our existing equity compensation plan as of December 31, 2015, which consists of our 2007 Equity Incentive Plan, 2015 Equity Incentive Plan and Employee Stock Purchase Plan. All share and share-based numbers and values in this table reflect the company's one-for-four reverse stock split effected on April 8, 2015.

| Plan Category | (a) Number of securities to be issued upon exercise of outstanding options, warrants and rights | (b) Weighted-average exercise price of outstanding options, warrants and rights | (c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) |
|--|--|--|---|
| Equity compensation plans approved by security holders | 3,253,310 | \$ 7.47 | 3,382,543 |
| Equity compensation plans not approved by security holders | | | |
| Total | 3,253,310 | \$ 7.47 | 3,382,543 |

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

The following table sets forth certain information as of April 12, 2016 with respect to the beneficial ownership of our common stock by:

all of our directors;

our named executive officers;

all of our executive officers and directors as a group; and

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

Unless otherwise indicated in the footnotes to the following table, each person named in the table has sole voting and investment power and his or her address is c/o InVivo Therapeutics Holdings Corp., One Kendall Square, Suite B14402, Cambridge, Massachusetts 02139. Shares of our common stock subject to options or warrants currently exercisable or exercisable within 60 days of April 12, 2016 are deemed outstanding for computing the share ownership and percentage of the person holding such options and warrants, but are not deemed outstanding for computing the percentage of any other person. The percentage ownership of our common stock of each person or entity named in the following table is based on [31,906,229] shares of our common stock outstanding as of April 12, 2016.

Directors and Officers

| Name of Beneficial Owner | Number of Shares of Common Stock Beneficially Owned | Percentage of Common Stock Beneficially Owned |
|--|--|---|
| Mark Perrin | 364,306(1) | 1.1% |
| Steven McAllister | 40,777(2) | * |
| Lorianne Masuoka | 39,329(3) | * |
| Thomas Ulich | 85,313(4) | * |
| Tamara Joseph | 58,981(5) | * |
| Kenneth DiPietro | 56,250(6) | * |
| Daniel Marshak | 31,250(7) | * |
| John McCarthy | 56,250(8) | * |
| C. Ann Merrifield | 33,250(9) | * |
| Richard Roberts | 298,137(10) | * |
| All directors and officers as a group (10 persons) | 1,063,843(11) | 3.2% |

*

Percentage of shares beneficially owned does not exceed one percent.

- (1) Includes 348,967 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.
- (2) Includes 35,813 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.
- (3) Includes 39,064 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.
- (4) Includes 79,691 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.

- (5) Includes 53,525 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.
- (6) Represents 56,250 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.

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- (7) Represents 31,250 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.
- (8) Represents 56,250 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.
- (9) Includes 31,250 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.
- (10) Includes 240,637 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.
- (11) Includes an aggregate of 972,697 shares issuable upon the exercise of stock options within 60 days of April 12, 2016.

Stockholders Known by Us to Own 5% or More of Our Common Stock

| Name of Beneficial Owner | Number of Shares of Common Stock Beneficially Owned | Percentage of Common Stock Beneficially Owned |
|--------------------------|--|---|
| Robert S. Langer(1) | 1,662,395 | 5.2% |

- (1) Mr. Langer's address is 98 Montvale Road, Newton, Massachusetts 02459.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our directors and executive officers and persons who own more than 10% of a registered class of our equity securities to file reports of beneficial ownership and changes in beneficial ownership with the SEC. To our knowledge, based solely on a review of copies of such reports furnished to us by our officers and directors, we believe that, during the fiscal year ended December 31, 2015, no person required to file reports under Section 16(a) of the Exchange Act failed to file such reports on a timely basis during such fiscal year, except that Dr. Roberts filed one Form 4 late with respect to the exercise of an outstanding stock option grant.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Related Party Transaction Policy

The Audit Committee reviews and oversees all related party transactions on an ongoing basis. A "related party transaction" is a transaction that meets the minimum threshold for disclosure in the proxy statement under applicable SEC rules (generally, transactions involving amounts exceeding \$120,000 in which a "related person" or entity has a direct or indirect material interest). "Related persons" include our executive officers, directors, beneficial owners of 5% or more of our common stock, immediate family members of these persons and entities in which one of these persons has a direct or indirect material interest. When a potential related party transaction is identified, management presents it to the Audit Committee to determine whether to approve or ratify it.

The Audit Committee reviews the material facts of any related party transaction and either approves or disapproves of entering into the transaction. In the course of reviewing the related party transaction, the Audit Committee considers whether (i) the transaction is fair and reasonable to our company, (ii) the transaction is in, or not inconsistent with, our company's best interests under all possible circumstances, and (iii) the transaction will be on terms no less favorable to our company than we could have obtained in an arm's-length transaction with an unrelated third party. If advance approval of a related party transaction is not feasible, then the transaction will be considered and, if the Audit Committee determines it to be appropriate, ratified by the Audit Committee. No director may participate in the approval of a transaction for which he or she is a related party. When a related

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party transaction is ongoing, any amendments or changes are reviewed and the transaction is reviewed annually for reasonableness and fairness to our company.

Related Party Transactions

We have entered into a consulting agreement with Dr. Robert Langer, a member of our Scientific Advisory Board and a holder of over 5% of our common stock, for certain consulting services. Dr. Langer was one of the original co-founders of our company. Pursuant to the terms of the agreement, we have agreed to pay Dr. Langer \$250,000 per year in consulting fees.

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AUDIT COMMITTEE REPORT

The Audit Committee of the Board of Directors has reviewed and discussed our audited financial statements for fiscal 2015 with our management. The Audit Committee has discussed with RSM US, LLP, our independent registered public accounting firm, the matters required to be discussed by the Auditing Standard No. 16, "Communications with Audit Committees," issued by the Public Company Accounting Oversight Board, or PCAOB. The Audit Committee has received the written disclosures and the letter from RSM US, LLP required by the applicable requirements of the PCAOB regarding the independent accountant's communications with the Audit Committee concerning independence, and has discussed with RSM US, LLP its independence. The Audit Committee also considered whether RSM US, LLP's provision of non-audit services to our company is compatible with maintaining RSM US, LLP's independence. Based on the review and discussions described above, among other things, the Audit Committee recommended to the Board that the audited financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2015.

AUDIT COMMITTEE
John McCarthy, Chairman
Daniel Marshak
C. Ann Merrifield

The information contained in the foregoing report shall not be deemed to be "soliciting material" or "filed" or incorporated by reference into any of our previous or future filings with the SEC, or subject to the liabilities of Section 18 of the Exchange Act, except to the extent specifically incorporated by reference into a document filed under the Securities Act or the Exchange Act.

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PROPOSAL NO. 2
APPROVAL OF AMENDMENT TO ARTICLES OF INCORPORATION

Our Board of Directors has adopted a resolution (i) approving an amendment to Article IV of our articles of incorporation that would increase the number of authorized shares of common stock from 50,000,000 to 100,000,000 shares (the "Amendment") and (ii) directing that the Amendment be submitted to the stockholders for approval at the Annual Meeting.

The Proposed Amendment

If the proposed Amendment is approved by our stockholders and subsequently filed with the Nevada Secretary of State, Article IV of the articles of incorporation would be amended and restated in its entirety to read:

"The total number of shares that this corporation is authorized to issue is One Hundred Million (100,000,000) shares of Common Stock having a par value of \$0.00001 per share."

Only the number of shares of common stock the company is authorized to issue would be affected by this Amendment. Except for this change, the proposed Amendment would not affect any other provision of the articles of incorporation. If approved by a majority of holders of our outstanding shares of common stock entitled to vote as of the record date, we will file the Amendment, in substantially the form attached hereto as Appendix A, with the Nevada Secretary of State.

Reasons for the Amendment

Our Board believes that an increase in the number of authorized shares of the company's common stock from 50,000,000 to 100,000,000 shares is in the best interests of our stockholders. Increasing the number of authorized shares of common stock will enable us to engage in capital raising transactions and other strategic transactions involving the issuance of equity securities. We have limited capital and in order for us to execute on our business plan and remain viable as a going concern, we must have the flexibility to engage in capital raising transactions until we are able to generate sufficient revenue and cash flow. Investors in prior transactions have purchased our common stock or our derivative securities, such as warrants, for which we must reserve unissued common stock.

As discussed in more detail below in the section titled "Number of Shares of Common Stock Currently Outstanding or Subject to Issuance," we have nearly reached our limit of authorized common stock. We are therefore limited in future capital raising opportunities that would require the issuance of shares of our common stock. Increasing the number of authorized shares of common stock will enable us to issue common stock or securities convertible or exercisable into common stock to investors and other strategic partners. These transactions, if they can be successfully negotiated and consummated, will help us fund our business plan, including the funding of our clinical trials. You should be aware that these potential capital raising transactions or other strategic transactions involving the issuance of additional shares of common stock will have a dilutive effect on our existing stockholders, as further described in the section below titled "Effects of Increase."

If the increase is not approved, we will be limited in our efforts to raise additional capital. In such event, our operations, financial condition and our ability to continue as a going concern may be materially and adversely affected.

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Number of Shares of Common Stock Currently Outstanding and Subject to Issuance

As of March 31, 2016, we had the following shares of common stock issued and outstanding and shares of common stock reserved for issuance under the following securities convertible or exercisable into common stock:

31,895,641 shares of our common stock issued and outstanding;

3,303,445 shares of our common stock issuable upon exercise of outstanding warrants;

3,253,310 shares of our common stock issuable upon exercise of outstanding stock options;

3,524,946 shares of our common stock reserved for future issuance under our incentive compensation plans and 401(k) plan; and

230,552 shares of common stock reserved for future sale under our employee stock purchase plan.

Effects of Increase

The additional authorized but unissued shares of common stock may generally be issued from time to time for such proper corporate purposes as may be determined by our Board or, as required by law or the rules of NASDAQ, with the approval and authorization of our stockholders. Our Board does not intend to solicit further stockholder approval prior to the issuance of additional shares of common stock, except as may be required by applicable law or by the rules of NASDAQ.

The possible future issuance of shares of our common stock or securities convertible or exercisable into our common stock could affect our current stockholders in a number of ways. The issuance of new shares of common stock will cause immediate dilution of the ownership interests and the voting power of our existing stockholders. New issuances of common stock may also affect the amount of dividends, if any, paid to such stockholders and may reduce the share of the proceeds that they would receive upon the future liquidation, if any, of the company.

In addition, the future issuance of shares of our common stock or securities convertible or exercisable into shares of our common stock could:

dilute the market price of our common stock, to the extent that the shares of common stock are issued and sold at prices below current trading prices, or, if the issuance consists of securities convertible or exercisable into common stock, to the extent that the securities provide for the conversion or exercise into common stock at prices that could be below current trading prices of the common stock, which dilution, in each case, may increase the volatility and effect the market value of our trading securities;

dilute the earnings per share, if any, and book value per share of the outstanding shares of our common stock; and

make the payment of dividends on common stock, if any, potentially more expensive.

Anti-Takeover Effects

Although the Amendment is not motivated by anti-takeover concerns, and is not considered by our Board to be an anti-takeover measure, the availability of additional authorized shares of common stock could enable the Board to issue shares defensively in response to a takeover attempt or to make an attempt to gain control of our company more difficult or time consuming. For example, shares of common stock could be issued to purchasers who might side with management in opposing a takeover bid that the Board determines is not in the best interests of our stockholders, thus diluting the ownership and voting rights of the person seeking to obtain control of our company. In certain

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circumstances, the issuance of common stock without further action by the stockholders may have the effect of delaying or preventing a change in control of the company, may discourage bids for our common stock at a premium over the prevailing market price and may adversely affect the market price of our common stock. As a result, increasing the authorized number of shares of our common stock could render more difficult and less likely a hostile takeover of our company by a third-party, or a tender offer or proxy contest, assumption of control by a holder of a large block of our stock, and the possible removal of our incumbent management. We are not aware of any proposed attempt to take over the company or of any present attempt to acquire a large block of our common stock.

Vote Required

The affirmative vote of stockholders that represent a majority of the voting power entitled to vote on the Amendment is required to approve the Amendment. Abstaining from voting on this Proposal will have the effect of a vote "AGAINST" this Proposal.

OUR BOARD RECOMMENDS A VOTE "*FOR*" THE APPROVAL OF THE AMENDMENT.

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**PROPOSAL NO. 3
ADVISORY VOTE ON NAMED EXECUTIVE OFFICER COMPENSATION**

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (known as the "Dodd-Frank Act") requires that we provide our stockholders with the opportunity to vote to approve, on a non-binding, advisory basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the compensation disclosure rules of the SEC. This proposal, which is commonly referred to as "Say on Pay," gives our stockholders the opportunity to express whether they support our company's executive compensation program.

Our compensation programs are designed to attract, motivate, retain and reward high quality executives and to align the interests of our executives with our stockholders by having a "pay for performance" philosophy, tying a portion of our executive officers' and senior management's compensation to our overall company business goals and individual performance goals. For additional information on the compensation program for our named executive officers, including specific information about compensation in 2015, please see the information in this proxy statement under the heading "Compensation Discussion and Analysis," along with the compensation tables and narrative descriptions that follow.

We currently provide our stockholders with the opportunity to cast the Say on Pay vote every three years. In accordance with the Dodd-Frank Act, the Say on Pay vote will be an advisory vote regarding our company's named executive officer compensation program generally and does not examine any particular compensation element individually. Because the Say on Pay vote is advisory, it is not binding on our company, our Compensation Committee or our Board. However, the Compensation Committee intends to review the results of the advisory vote and will be cognizant of the feedback received from the voting results as it completes its annual review and engages in the compensation planning process.

Accordingly, we ask our stockholders to vote on the following resolution at the Annual Meeting:

"RESOLVED, that the compensation paid to the company's named executive officers, as disclosed in the proxy statement for the Annual Meeting pursuant to the compensation disclosure rules of the Securities Exchange Commission, including the Compensation Discussion and Analysis, the compensation tables and related narrative disclosure, is hereby approved."

OUR BOARD BELIEVES THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS IS APPROPRIATE AND PROMOTES THE BEST INTERESTS OF OUR STOCKHOLDERS, AND THEREFORE RECOMMENDS A VOTE "FOR" APPROVAL OF THIS RESOLUTION.

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**PROPOSAL NO. 4
RATIFICATION OF THE APPOINTMENT OF
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Audit Committee has selected RSM US, LLP ("RSM") as our independent registered public accounting firm to audit our financial statements for the fiscal year ending December 31, 2016. The Board is asking our stockholders to ratify the appointment of RSM as our independent registered public accounting firm. If the stockholders do not ratify the appointment of RSM as our independent registered public accounting firm, the Audit Committee may reconsider its appointment. Even if the appointment 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 Audit Committee determines that such a change would be in the best interests of our company and stockholders. A representative of RSM is expected to be present at the Annual Meeting and will have the opportunity to make a statement if he or she desires to do so and will be available to respond to appropriate questions from stockholders.

Effective August 7, 2015, our Audit Committee dismissed Wolf & Company, P.C. ("Wolf & Co.") as our independent registered public accounting firm, and approved the engagement of RSM as our independent registered public accounting firm.

The reports of Wolf & Co. on the Company's consolidated financial statements for the fiscal years ended December 31, 2013 and December 31, 2014 did not contain an adverse opinion or disclaimer of opinion, nor were they qualified or modified as to uncertainty, audit scope, or accounting principles, except that the report for the fiscal year ended December 31, 2013 contained an explanatory paragraph with respect to substantial doubt as to the company's ability to continue as a going concern. During the company's fiscal years ended December 31, 2013 and December 31, 2014, and the subsequent interim period through the date of dismissal of Wolf & Co., (i) there were no disagreements with Wolf & Co. on any matter of accounting principles or practices, financial statement disclosure, or auditing scope and procedure, which disagreements, if not resolved to the satisfaction of Wolf & Co., would have caused Wolf & Co. to make reference to the subject matter of the disagreement in connection with its reports on the consolidated financial statements for such years, and (ii) there were no "reportable events," as that term is defined in Item 304(a)(1)(v) of Regulation S-K.

During the company's fiscal years ended December 31, 2013 and December 31, 2014, and the subsequent interim period of January 1, 2015 through the engagement of RSM on August 7, 2015, neither the company, nor anyone on its behalf, consulted with RSM regarding either (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the company's consolidated financial statements, and neither a written report oral advice was provided to the company that RSM concluded was an important factor considered by the company in reaching a decision as to the accounting, auditing or financial reporting issue, or (ii) any matter that was either the subject of a "disagreement," as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions, or a "reportable event," as that term is defined in Item 304(a)(1)(v) of Regulation S-K.

Table of Contents**Independent Registered Public Accounting Firm Fees***Audit Fees*

| Firm | Year | Fees (\$)(1) |
|----------------------|-------------|---------------------|
| RSM US, LLP | 2015 | 195,000 |
| WOLF & COMPANY, P.C. | 2015 | 41,525 |
| | 2014 | 123,470 |

- (1) Audit fees in each of 2015 and 2014 consisted of fees incurred for professional services rendered for the audit of consolidated financial statements and internal control over financial reporting and for reviews of our interim consolidated financial statements included in our quarterly reports on Form 10-Q.

Audit-Related Fees

| Firm | Year | Fees (\$)(1) |
|----------------------|-------------|---------------------|
| RSM US, LLP | 2015 | 31,200 |
| WOLF & COMPANY, P.C. | 2015 | 31,620 |
| | 2014 | 114,613 |

- (1) Audit-related fees in 2014 consisted of fees related to the review of financial information and consents in conjunction with Form S-8 and Form S-3 filings. Audit-related fees in 2015 paid to Wolf & Co. consisted of fees related to consents provided in connection with a Form S-8 filing, delivery of a comfort letter, due diligence services and accounting consultations in connection with internal control reviews. Audit-related fees in 2015 paid to RSM consisted of fees related to delivery of a comfort letter in conjunction with the ATM.

Tax Fees

There were no fees paid to RSM or Wolf & Company, P.C. for any tax-related services in 2015 or 2014.

All Other Fees

There were no other fees paid to RSM or Wolf & Company, P.C. in 2015 or 2014.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services

Our Audit Committee is responsible for pre-approving all services provided by our independent registered public accounting firm. All of the above services and fees were reviewed and approved by the Audit Committee before the services were rendered. The Audit Committee has considered the nature and amount of fees billed by RSM and believes that the provision of services for activities unrelated to the audit is compatible with maintaining RSM's independence.

Vote Required

The affirmative vote of the majority of votes cast by the holders of our common stock, present or represented by proxy at the Annual Meeting and entitled to vote, is required to ratify the appointment of RSM as our independent registered public accounting firm for the fiscal year ending December 31, 2016.

OUR BOARD UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE RATIFICATION OF THE APPOINTMENT OF RSM US, LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2016.

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OTHER MATTERS

Householding Information

Some banks, brokers and other nominee record holders may participate in the practice of "householding" proxy statements and annual reports. This means that only one copy of our proxy statement and Annual Report on Form 10-K for the year ended December 31, 2015 (the "Annual Report") may have been sent to multiple stockholders in your household. We will promptly deliver a separate copy of the proxy statement and the Annual Report to any beneficial owner at a shared address to which a single copy of any of those documents was delivered if you write or call us at the following address or telephone number: InVivo Therapeutics Holdings Corp., One Kendall Square, Suite B14402, Cambridge, MA 02139, Attn: Secretary, telephone: (617) 863-5500. If you want to receive separate copies of the proxy statement and the annual report in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address and telephone number.

Expenses of Proxy Solicitation

The solicitation of proxies will be conducted by telephone or mail and we will bear all attendant expenses. These expenses will include the expense of preparing and mailing proxy materials for the Annual Meeting. Brokerage firms and other custodians, nominees and fiduciaries will be requested to forward the proxy materials to beneficial owners and to obtain authorization for the execution of proxies, and we will reimburse such brokerage firms, other custodians, nominees and fiduciaries for reasonable expenses incurred in sending proxy materials to beneficial owners of our common stock. We may conduct further solicitation personally or telephonically through our directors, officers and employees, none of whom will receive additional compensation for assisting with the solicitation. We have retained the services of Laurel Hill Advisory Group, LLC, to assist in the solicitation of proxies at a cost of approximately \$3,000, plus reimbursement of certain expenses.

Stockholder Proposals

Stockholder proposals for inclusion in our proxy statement: If a stockholder wishes to present a proposal to be included in our proxy statement and form of proxy for the 2017 annual meeting of stockholders, the proposal must be received by our Secretary c/o InVivo Therapeutics Holdings Corp., One Kendall Square, Suite B14402, Cambridge, Massachusetts 02139, no later than the close of business on December 23, 2016. Such proposal must comply with the applicable rules of the SEC in order to be included in our proxy statement and proxy relating to the 2017 annual meeting of stockholders. If the date of next year's annual meeting is changed by more than 30 days from the anniversary date of the Annual Meeting, then the deadline to submit a proposal for inclusion in our proxy statement is a reasonable time before we begin to print and mail proxy materials.

Other stockholder proposals: A stockholder proposal not included in our proxy statement for the 2017 annual meeting of stockholders, including proposed nominations for director, will not be eligible for presentation at the 2017 annual meeting unless the stockholder gives timely notice of the proposal in writing to our Secretary at our principal executive offices and otherwise complies with the provisions of our amended and restated bylaws. To be timely, the stockholder is required to give written notice to our Secretary c/o InVivo Therapeutics Holdings Corp., One Kendall Square, Suite B14402, Cambridge, Massachusetts 02139, of his or her proposed director nomination or the proposal of other business to be considered by the stockholders. Such written notice must be made in accordance with Article II, Section 13 of our amended and restated bylaws, which require appropriate notice to us of a director nomination or proposal of other business for consideration not less than 60 days nor more than 90 days prior to the date of the first anniversary of this Annual Meeting. If, however, the 2017 annual meeting

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of stockholders is more than 30 days before, or more than 60 days after, such anniversary date, then to be timely notice must be provided not earlier than the close of business the 90th day prior to the 2017 annual meeting of stockholders and not later than the close of business on the later of the 60th day prior to the 2017 annual meeting of stockholders or the 10th day following the day on which public announcement of the date of the 2017 annual meeting of stockholders is first made by us. Assuming that the 2017 annual meeting is held on schedule, we must receive written notice of a proposal to nominate a director or proposal of other business for consideration between February 25, 2017 and March 27, 2017.

The notice must also meet all other requirements contained in our amended and restated bylaws, including the requirement to contain specified information about the stockholder making the proposal and the proposed business to be brought before the meeting or the director nominee.

Other Business

As of the date of this proxy statement, we do not know of any matters to be presented at the Annual Meeting other than those described in this proxy statement. If any other matters should properly come before the Annual Meeting, proxies in the enclosed form will be voted on those matters in accordance with the judgment of the person or persons voting the proxies, unless otherwise specified.

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Appendix A

**CERTIFICATE OF AMENDMENT
TO
ARTICLES OF INCORPORATION
FOR NEVADA PROFIT CORPORATIONS
(Pursuant to NRS 78.385 and 78.390).**

First: The name of the Corporation is InVivo Therapeutics Holdings Corp. (the "Corporation")

Second: The Corporation's Articles of Incorporation (the "Articles") shall be amended by replacing Article IV with the following:

FOURTH

The total number of shares that this corporation is authorized to issue is One Hundred Million (100,000,000) shares of Common Stock having a par value of \$0.00001 per share.

Third: The vote by which the stockholders holding shares in the Corporation entitling them to exercise a least a majority of the voting power, or such greater proportion of the voting power as may be required in the case of a vote by classes or series, or as may be required by the provisions of the Articles have voted in favor of the amendment is .

Effective as of .

INVIVO THERAPEUTICS HOLDINGS CORP.

By:

Steven F. McAllister,
Chief Financial Officer

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