

ARCA biopharma, Inc.  
Form DEF 14A  
April 27, 2016

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**SCHEDULE 14A**

**(Rule 14a-101)**

**INFORMATION REQUIRED IN PROXY STATEMENT**

**SCHEDULE 14A INFORMATION**

Proxy Statement Pursuant to Section 14(a) of the  
Securities Exchange Act of 1934

Filed by the Registrant  X  
Filed by a Party other than the Registrant  ..  
Check the appropriate box:

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

**ARCA BIOPHARMA, INC.**

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box)

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No fee required.

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1. Title of each class of securities to which transaction applies:

2. Aggregate number of securities to which transaction applies:

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

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6. Amount Previously Paid:

7. Form, Schedule or Registration Statement No.:

**8.** Filing Party:

**9.** Date Filed:

**ARCA BIOPHARMA, INC.**

11080 CirclePoint Road, Suite 140

Westminster, Colorado 80020

April 27, 2016

Dear Stockholders of ARCA biopharma, Inc.:

You are cordially invited to attend the Annual Meeting of Stockholders (the Annual Meeting ) of ARCA biopharma, Inc., a Delaware corporation (the Company or ARCA ). The meeting will be held on Thursday, June 9, 2016, at 9:00 a.m. local time at the Boulder Marriott Hotel, 2660 Canyon Boulevard, Boulder, CO 80302.

The matters scheduled to be considered at the meeting are (1) to elect the nominee of the Company s Board of Directors (the Board of Directors ), Dr. Linda Grais, to the Board of Directors to hold office until the 2019 Annual Meeting of Stockholders, (2) to ratify the selection by the Audit Committee of the Board of Directors (the Audit Committee ) of KPMG LLP ( KPMG ) as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2016, (3) to approve the Amended and Restated ARCA 2013 Equity Incentive Plan, (4) to approve, on an advisory basis, the compensation of the Company s named executive officers, as disclosed in this proxy statement, and (5) to conduct any other business properly brought before the meeting. These items of business are more fully described in this proxy statement that you are encouraged to read in its entirety.

In accordance with the Securities and Exchange Commission ( SEC ) rule ( Notice and Access Rule ) that allows companies to furnish their proxy materials (including the form of proxy, this proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 17, 2016) over the Internet, we intend to send a Notice of Internet Availability of Proxy Materials ( Notice ) on or about April 28, 2016 to our stockholders of record as of April 12, 2016. We will also provide access to our proxy materials over the Internet by April 28, 2016. As a result of the Notice and Access Rule, all stockholders receiving the Notice have the ability to access the proxy materials over the Internet and request to receive a paper copy of the proxy materials by mail. Instructions on how to access the proxy materials over the Internet or to request a paper copy may be found on the Notice. In addition, the Notice contains instructions on how stockholders may request to receive proxy materials electronically by e-mail.

All stockholders are cordially invited to attend the Annual Meeting in person. Whether or not you expect to attend the Annual Meeting, please vote, as instructed in the Notice of Internet Availability of Proxy Materials, via the Internet or the telephone, as promptly as possible in order to ensure your representation at the Annual Meeting. Alternatively, you may follow the procedures outlined in the Notice of Internet Availability of Proxy Materials to request a paper proxy card to submit your vote by mail. Even if you have voted by proxy, you may still vote in person if you attend the Annual Meeting. Please note, however, that if your shares are held of record by a broker, bank or other agent and you wish to vote at the Annual Meeting, you must obtain a proxy issued in your name from that record holder.

Sincerely,

**CHRISTOPHER OZEROFF**

Secretary, Senior Vice President and General Counsel

**ARCA BIOPHARMA, INC.**

11080 CirclePoint Road, Suite 140

Westminster, Colorado 80020

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS**

**TO BE HELD ON JUNE 9, 2016**

Notice is hereby given that the Annual Meeting of Stockholders (the Annual Meeting ) of ARCA biopharma, Inc., a Delaware corporation (the Company or ARCA ) will be held on Thursday, June 9, 2016, at 9:00 a.m. local time at the Boulder Marriott Hotel, 2660 Canyon Boulevard, Boulder, CO 80302, for the following purposes:

1. To elect the Board of Directors nominee, Dr. Linda Graiss, to the Board of Directors to hold office until the 2019 Annual Meeting of Stockholders.
2. To ratify the selection by the Audit Committee of the Board of Directors of KPMG LLP as independent registered public accounting firm of the Company for its fiscal year ending December 31, 2016.
3. To approve the Amended and Restated ARCA 2013 Equity Incentive Plan.
4. To approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed in this proxy statement.
5. To conduct any other business properly brought before the meeting.

These items of business are more fully described in the proxy statement accompanying this Notice.

The record date for the Annual Meeting is April 12, 2016. Only stockholders of record at the close of business on that date may vote at the meeting or any adjournment thereof.

By Order of the Board of Directors:

**CHRISTOPHER OZEROFF**

Secretary, Senior Vice President and General Counsel

WESTMINSTER, CO

APRIL 27, 2016

**Pursuant to the Internet proxy rules promulgated by the Securities and Exchange Commission, the Company has elected to provide access to its proxy materials over the Internet. Accordingly, stockholders of record at the close of business on April 12, 2016, will receive a Notice of Internet Availability of Proxy Materials and may vote at the Annual Meeting and any adjournment or postponement thereof. The Company expects to mail the Notice of Internet Availability of Proxy Materials on or about April 28, 2016.**

**All stockholders are cordially invited to attend the Annual Meeting in person. Whether or not you expect to attend the Annual Meeting, please vote, as instructed in the Notice of Internet Availability of Proxy Materials, via the Internet or the telephone, as promptly as possible in order to ensure your representation at the annual meeting. Alternatively, you may follow the procedures outlined in the Notice of Internet Availability of Proxy Materials to request a paper proxy card to submit your vote by mail. Even if you have voted by proxy, you may still vote in person if you attend the Annual Meeting. Please note, however, that if your shares are held of record by a broker, bank or other agent and you wish to vote at the Annual Meeting, you must obtain a proxy issued in your name from that record holder.**

**ARCA BIOPHARMA, INC.**

11080 CirclePoint Road, Suite 140

Westminster, Colorado 80020

**PROXY STATEMENT**

**FOR THE 2016 ANNUAL MEETING OF STOCKHOLDERS**

**JUNE 9, 2016**

This proxy statement (this Proxy Statement) is being furnished to holders of ARCA biopharma, Inc. (sometimes referred to as the Company, ARCA, we, us, and our) common stock, par value \$0.001 per share (the Common Proxies are being solicited on behalf of the Board of Directors of ARCA to be used at the Annual Meeting of Stockholders (the Annual Meeting) to be held on Thursday, June 9, 2016, at 9:00 a.m. local time at the Boulder Marriott Hotel, 2660 Canyon Boulevard, Boulder, CO 80302, and at any postponement or adjournment thereof, for the purposes set forth in the Notice of Annual Meeting of Stockholders.

ARCA is using the Securities and Exchange Commission (the SEC) rule that allows companies to furnish their proxy materials over the Internet. As a result, we intend to mail to our stockholders a Notice of Internet Availability of Proxy Materials (the Notice) instead of a paper copy of the proxy materials (including the form of proxy, this Proxy Statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 17, 2016 (the 2015 Annual Report), collectively, the Proxy Materials) on or about April 28, 2016. We will also provide access to our Proxy Materials over the Internet by April 28, 2016. By furnishing the Notice to our stockholders of record, you ***will not*** receive a printed copy of the Proxy Materials in the mail. Instead, the Notice instructs you on how to access and review all of the important information contained in the Proxy Statement and Annual Report electronically or to receive a printed version in the mail. The Notice also instructs you on how you may submit your proxy over the Internet, by toll-free number or in person at the Annual Meeting. Subsequent to receiving the Notice, all stockholders have the ability to access the Proxy Materials over the Internet and request to receive a paper copy of the Proxy Materials by mail. Instructions on how to access the Proxy Materials over the Internet or to request a paper copy may be found on the Notice. In addition, the Notice contains instructions on how stockholders may request to receive Proxy Materials electronically by e-mail.

All stockholders may view and print ARCA's proxy statement and the 2015 Annual Report, which are available at [www.arcabiopharma.com](http://www.arcabiopharma.com).

**QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING**

**Why did I receive a notice regarding the availability of the Proxy Materials on the Internet?**

As described above, pursuant to rules adopted by the SEC, we have elected to provide access to the Proxy Materials over the Internet. Accordingly, on or about April 28, 2016, we expect to send the Notice to ARCA's stockholders of record. The Board of Directors is soliciting your proxy to vote at the Annual Meeting. All stockholders will have the ability to access the Proxy Materials on the website referred to in the Notice or request to receive a printed or electronic set of the Proxy Materials. Instructions on how to access the Proxy Materials over the Internet or to request a printed copy may be found in the Notice.

**How do I attend the Annual Meeting?**

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The meeting will be held on Thursday, June 9, 2016, at 9:00 a.m. local time at the Boulder Marriott Hotel, 2660 Canyon Boulevard, Boulder, CO 80302. Directions to the Annual Meeting may be found at [www.arcabiopharma.com](http://www.arcabiopharma.com). Information on how to vote in person at the Annual Meeting is discussed below.

1.



### **Who can vote at the Annual Meeting?**

Only stockholders of record at the close of business on April 12, 2016, will be entitled to vote at the Annual Meeting. On this record date, there were 9,066,348 shares of Common Stock outstanding and entitled to vote.

#### *Stockholder of Record: Shares Registered in Your Name*

If, on April 12, 2016, your shares of our Common Stock were registered directly in your name with ARCA's transfer agent, Computershare Trust Company N.A., then you are a stockholder of record. As a stockholder of record, you may vote in person at the meeting or vote by proxy. Whether or not you plan to attend the meeting, we urge you to vote by proxy over the telephone or on the Internet as instructed below or return the proxy card we may mail to you to ensure your vote is counted.

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

If, on April 12, 2016, your shares of our Common Stock were held, not in your name, but rather in an account at a brokerage firm, bank, dealer, or other similar organization, then you are the beneficial owner of shares held in street name and the Notice is being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the Annual Meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the meeting unless you request and obtain a valid proxy from your broker or other agent.

### **What am I voting on?**

There are four matters scheduled for a vote:

- Ø Election of one director;
- Ø Ratification of selection by the Audit Committee of the Board of Directors of KPMG LLP ( KPMG ) as independent registered public accounting firm of the Company for its fiscal year ending December 31, 2016;
- Ø Approval of the Amended and Restated ARCA 2013 Equity Incentive Plan; and
- Ø Approval, on an advisory basis, of the compensation of the Company's named executive officers.

### **What if another matter is properly brought before the meeting?**

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

### **How do I vote?**

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You may either vote For the nominee to the Board of Directors or you may Withhold your vote for the nominee. For all other matters to be voted on, you may vote For or Against or abstain from voting. The procedures for voting are fairly simple:

*Stockholder of Record: Shares Registered in Your Name*

If you are a stockholder of record, you may vote in person at the Annual Meeting, vote by proxy over the telephone, vote by proxy through the Internet or vote by proxy using a proxy card that you may request or that we may elect to deliver at a later time. Whether or not you plan to attend the meeting, we urge you to vote by proxy to

2.

ensure your vote is counted. You may still attend the meeting and vote in person even if you have already voted by proxy.

- Ø To vote in person, come to the Annual Meeting and we will give you a ballot when you arrive.
- Ø To vote using the proxy card, simply complete, sign and date the proxy card that may be delivered and return it promptly in the envelope provided. If you return your signed proxy card to us before the Annual Meeting, we will vote your shares as you direct.
- Ø To vote over the telephone, dial toll-free **1-800-652-VOTE (8683)** using a touch-tone phone and follow the recorded instructions. You will be asked to provide the company number and control number from the Notice. Your vote must be received by 1:00 a.m. Mountain Time on June 9, 2016, to be counted.
- Ø To vote through the Internet, go to **<http://www.investorvote.com/ABIO>** to complete an electronic proxy card. You will be asked to provide the company number and control number from the Notice. Your vote must be received by 1:00 a.m. Mountain Time on June 9, 2016, to be counted.

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

If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a Notice containing voting instructions from that organization rather than from ARCA. Simply follow the voting instructions in the Notice to ensure that your vote is counted. To vote in person at the Annual Meeting, you must obtain a valid proxy from your broker, bank, or other agent. Follow the instructions from your broker or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

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

**How many votes do I have?**

On each matter to be voted upon, you have one vote for each share of Common Stock you owned as of April 12, 2016.

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

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, For the election of the nominee for director and For Proposals 2, 3 and 4. If any other matter is properly presented at the meeting, your proxy holder (one of the individuals named on your proxy card) will vote your shares using his or her best judgment.

**Who is paying for this proxy solicitation?**

We will pay for the entire cost of soliciting proxies. In addition to these proxy materials, the directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will

not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

**What does it mean if I receive more than one Notice?**

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

3.

### **Can I change my vote after submitting my proxy?**

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

- Ø You may submit another properly completed proxy card with a later date.
- Ø You may grant a subsequent proxy by telephone or through the Internet.
- Ø You may send a timely written notice that you are revoking your proxy to ARCA's Secretary at 11080 CirclePoint Road, Suite 140, Westminster, Colorado, 80020.
- Ø You may attend the Annual Meeting and vote in person. Simply attending the meeting will not, by itself, revoke your proxy.

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

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

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

To be considered for inclusion in next year's proxy materials, your proposal must be submitted in writing by December 29, 2016, to ARCA's Secretary at 11080 CirclePoint Road, Suite 140, Westminster, Colorado, 80020. If you wish to submit a proposal that is not to be included in next year's proxy materials or nominate a director, you must do so by no earlier than March 11, 2017, and no later than April 10, 2017. You are also advised to review the Company's Bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations.

### **How are votes counted?**

Votes will be counted by the inspector of election appointed for the meeting. For Proposal 1, to elect a new director, votes For and Withhold will be counted. For Proposals 2, 3 and 4, votes For and Against, abstentions and broker non-votes will be counted. Abstentions will be counted towards the vote total for Proposals 2, 3 and 4, and will have the same effect as Against votes. Broker non-votes have no effect and will not be counted towards the vote total for any proposal.

### **What are broker non-votes ?**

Broker non-votes occur when a beneficial owner of shares held in street name does not give instructions to the broker or nominee holding the shares as to how to vote. Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the broker or nominee holding the shares. If the beneficial owner does not provide voting instructions, the broker or nominee can still vote the shares with respect to matters that are considered to be routine, but not with respect to non-routine matters. Under the rules and interpretations of the New York Stock Exchange ( NYSE ), non-routine matters are matters that may substantially affect the rights or privileges of shareholders, such as mergers, shareholder proposals and elections of directors, even if not contested.

**How many votes are needed to approve each proposal?**

- Ø Proposal No. 1, for the election of a director. For this proposal, the nominee receiving the most For votes (from the holders of votes of shares present in person or represented by proxy and entitled to vote on the election of directors) will be elected. Only votes For or Withheld votes will affect the outcome. Broker non-votes will have no effect.
  
- Ø Proposal No. 2, to ratify the selection of KPMG LLP as the Company's independent registered public accounting firm for fiscal year 2016. This proposal must receive For votes from the holders of a majority of shares present and entitled to vote either in person or by proxy. If you Abstain from voting, it will have the same effect as an Against vote. Broker non-votes will have no effect.

4.

- Ø Proposal No. 3, to approve the Amended and Restated ARCA 2013 Equity Incentive Plan. This proposal must receive For votes from the holders of a majority of shares present and entitled to vote either in person or by proxy. If you Abstain from voting, it will have the same effect as an Against vote. Broker non-votes will have no effect.
  
- Ø Proposal No. 4, an advisory approval of the compensation of the Company's named executive officers. This proposal must receive For votes from the holders of a majority of shares present and entitled to vote either in person or by proxy to be considered to be approved. If you Abstain from voting, it will have the same effect as an Against vote. Broker non-votes will have no effect.

**What is the quorum requirement?**

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding a majority of the outstanding shares of Common Stock entitled to vote are present at the meeting in person or represented by proxy. On the record date, April 12, 2016, there were 9,066,348 shares of Common Stock outstanding and entitled to vote. Thus, the holders of 4,533,174 shares of Common Stock must be present in person or represented by proxy at the meeting to have a quorum.

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

**How can I find out the results of the voting at the Annual Meeting?**

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

**NO PERSON IS AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATION OTHER THAN THOSE CONTAINED IN THIS PROXY STATEMENT, AND, IF GIVEN OR MADE, SUCH INFORMATION MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED. THE DELIVERY OF THIS PROXY STATEMENT SHALL, UNDER NO CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF ARCA SINCE THE DATE OF THIS PROXY STATEMENT.**

## **PROPOSAL 1**

### **ELECTION OF BOARD OF DIRECTORS**

The Company's Amended and Restated Certificate of Incorporation provides that the Board of Directors is divided into three classes to provide for staggered terms and that each director will serve for a term of three years or less, depending on the class to which the Board of Directors has assigned a director not previously elected by the stockholders. There are currently no vacancies on the Board of Directors. Vacancies on the Board of Directors may be filled only by persons elected by a majority of the remaining directors. A director elected by the Board of Directors to fill a vacancy in a class, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director's successor is duly elected and qualified. The Company may reduce or increase the size of the Board of Directors by resolution adopted by the affirmative vote of a majority of the directors.

There are currently two Class III directors, whose terms expire at the annual stockholders' meeting in 2018, two Class II directors whose terms expire at the annual stockholders' meeting in 2017, and one Class I director, whose term expires at the annual stockholders' meeting in 2016. The Board of Directors has nominated one Class I director, Dr. Linda Grais, for election to the Board of Directors, for a three-year term ending on the date of the annual meeting in 2019 or until her successor is duly elected and qualified or appointed.

If elected at the Annual Meeting, Dr. Grais would serve until the 2019 annual meeting and until her successor has been duly elected and qualified, or, if sooner, until the director's death, resignation or removal. It is the Company's policy to encourage directors and nominees for director to attend the Annual Meeting. Three of the Company's directors then on the Board of Directors attended the 2015 Annual Meeting of Stockholders in person, and two attended by telephone.

Directors are elected by a plurality of the votes of the holders of shares present in person or represented by proxy and entitled to vote on the election of directors. The nominee receiving the highest number of affirmative votes will be elected. The person nominated for election has agreed to serve if elected. The Company's management has no reason to believe that the nominee will be unable to serve.

#### **Director Qualifications and Diversity**

The below paragraphs provide information, as of the date of this proxy statement, about the nominee and current members of the Board of Directors, including age, all positions currently held, principal occupation and business experience for the past five years. In addition to the information presented regarding each nominee's specific experience, qualifications, attributes and skills that led the Board of Directors to conclude that such director or nominee should be able to serve as a director, the Board of Directors also believes that all of the directors and nominees have a reputation of integrity, honesty and adherence to high ethical standards. They each have demonstrated business acumen and an ability to exercise sound judgment as well as a commitment to service to ARCA and the Board of Directors.

Our Nominating and Corporate Governance Committee considers diversity in the director identification and nomination process. The Nominating and Corporate Governance Committee seeks nominees with a broad diversity of experience, professions, skills, geographic representation and backgrounds. Such Committee does not assign specific weights to particular criteria and no particular criterion is necessarily applicable to all prospective nominees. ARCA believes that the backgrounds and qualifications of the directors, considered as a group, should provide a significant composite mix of experience, knowledge and abilities that will allow the Board of Directors to fulfill its responsibilities. Nominees are not discriminated against on the basis of race, religion, national origin, sexual orientation, disability or any other basis proscribed by law.



6.

**NOMINEE FOR ELECTION FOR A THREE-YEAR TERM EXPIRING AT THE 2019 ANNUAL MEETING**

**THE BOARD OF DIRECTORS RECOMMENDS**

**A VOTE IN FAVOR OF THE NAMED NOMINEE.**

**Linda Grais, M.D.**

Dr. Grais, age 59, has served as a member of the Board of Directors since May 2007. Dr. Grais has been a director of Ocera Therapeutics, Inc., a public biopharmaceutical company, since January 2008 and became President and Chief Executive Officer of Ocera in June 2012. Dr. Grais served as a Managing Member at InterWest Partners, a venture capital firm from May 2005 until February 2011. From July 1998 to July 2003, Dr. Grais was a founder and executive vice president of SGX Pharmaceuticals Inc., a drug discovery company. Prior to that, she was a corporate attorney at Wilson Sonsini Goodrich & Rosati, where she practiced in such areas as venture financings, public offerings and strategic partnerships. Before practicing law, Dr. Grais worked as an assistant clinical professor of Internal Medicine and Critical Care at the University of California, San Francisco. Dr. Grais received a B.A. from Yale University, magna cum laude, and Phi Beta Kappa, an M.D. from Yale Medical School and a J.D. from Stanford Law School. Since September 2015, Dr. Grais has served on the board of PRA Health Sciences, a public contract research organization. Dr. Grais is an appropriate nominee to the Board of Directors because of her diverse training and experience as both a medical doctor and a lawyer, her experience as a founder and senior executive of a pharmaceutical company, and her experience as an investor in new life sciences companies. She also has extensive experience with and knowledge of the Company's business from her service on the Board of Directors of the Company since 2007.

**DIRECTORS CONTINUING IN OFFICE UNTIL THE 2017 ANNUAL MEETING**

**Michael R. Bristow, M.D., Ph.D.**

Dr. Bristow, age 71, was one of the founders of ARCA in September 2004, and has served as a Director since that time. Dr. Bristow has also served as the Company's President and Chief Executive Officer since July 2009. Previously, Dr. Bristow served as the President and Chief Executive Officer of the Company from September 2004 to November 2006, and as the Company's Chief Science and Medical Officer from November 2006 to July 2009. Dr. Bristow is a Professor of Medicine and the former Head of Cardiology at the University of Colorado Health Sciences Center, where he has been since October 1991. Dr. Bristow was one of the founders of Myogen, Inc. and served as Myogen's Chief Science and Medical Officer from October 1996 to February 2006 and as a Scientific Advisor to Myogen from February 2006 until the acquisition of Myogen by Gilead Sciences, Inc. in November 2006. Dr. Bristow is an appropriate member of the Company's Board of Directors given his extensive experience and expertise as a cardiologist, medical researcher and drug developer in the field of cardiovascular medicine, and heart failure specifically, and his experience as a founder and manager of cardiovascular-focused, public pharmaceutical company. Dr. Bristow also has extensive experience with, and knowledge of, ARCA's business, as the founder and former Chief Science and Medical Officer of the Company, and the current President and Chief Executive Officer of ARCA, and as a member of the Board of Directors of ARCA since the founding of the Company.

**Robert E. Conway**

Mr. Conway, age 62, was appointed to the Board of Directors in September 2013, and has served as the Chairman of our Board of Directors since 2014. Mr. Conway served as the Chief Executive Officer and member of the board of directors of Array Biopharma, a publicly traded pharmaceutical company, from 1999 to 2012. Prior to joining Array, Mr. Conway was the Chief Operating Officer and Executive Vice President of Hill Top Research, Inc., from 1996 to 1999. From 1979 until 1996, Mr. Conway held various executive positions for Corning Inc. including Corporate Vice

President and General Manager of Corning Hazleton, Inc., a contract research organization. From 2004 to 2013, he served on the board of directors of PRA International, Inc., which was a public company for a portion of his tenure there, from 2012 to the present, he has served on the board of directors of

7.

eResearch Technology, Inc., a private company, and from 2015 to the present, he has served on the board of directors of Nivalis Therapeutics, Inc. a public, clinical stage pharmaceutical company. Mr. Conway also serves as the Chairman of Wall Family Enterprise, a leading library and educational supplies company. In addition, Mr. Conway is a member of the Strategic Advisory Committee of Genstar Capital, LLC. Mr. Conway received a B.S. in accounting from Marquette University in 1976. He is an appropriate member of the Board of Directors given his experience and expertise in the pharmaceutical industry, in pharmaceutical development and clinical trials, and in corporate finance, governance, accounting and public company compliance.

#### **DIRECTORS CONTINUING IN OFFICE UNTIL THE 2018 ANNUAL MEETING**

##### **Raymond L. Woosley, M.D., Ph.D.**

Dr. Woosley, age 73, was appointed to the Board of Directors in July 2013. Dr. Woosley is currently the President Emeritus of the Critical Path Institute (C-Path), a non-profit, public-private partnership with the Federal Food and Drug Administration, of which he was a founder in November 2004, and where he served as President, Chief Executive Officer and Chairman of the board of directors from 2005 to 2011. Since 2012, Dr. Woosley has also been the Director of CredibleMeds Worldwide, an independent, nonprofit research and education organization. Since 2001, Dr. Woosley has also been a Professor of Medicine and Pharmacology at The University of Arizona Health Sciences Center (UAHSC), and, since 2012, Professor Emeritus, where he was also Vice President for Health Sciences from 2001 to 2005, and Dean of the College of Medicine from 2001 to 2002. From 1988 to 2001, Dr. Woosley was a professor of medicine at the Georgetown University School of Medicine, where he was also Director of the Institute of Cardiovascular Sciences from 1994 to 2000, and Division Chief, Clinical Pharmacology, in the Department of Medicine from 1988 to 1994. Dr. Woosley earned his Ph.D. in Pharmacology from the University of Louisville and his M.D. from the University of Miami. Dr. Woosley's research has been published in over 265 peer-reviewed publications and 50 book chapters. Dr. Woosley is an appropriate member of the Board of Directors, given his expertise and experience in cardiovascular clinical pharmacology, anti-arrhythmic therapeutics, pharmacogenetic drug development and therapeutic regulatory approval.

##### **Dan J. Mitchell**

Mr. Mitchell, age 59, was appointed to the Board of Directors in February 2014. He founded, and is a manager of Sequel Venture Partners, L.L.C., a venture capital firm formed in January 1997. Prior to founding Sequel Venture Partners, Mr. Mitchell was a founder of Capital Health Venture Partners, a health care focused venture capital firm, where he was a General Partner from October 1986 until 2006, and he was in the Venture Capital Division of the Trust Department of the First National Bank of Chicago from 1983 to 1985. He currently serves on the board of directors of GlobeImmune, Inc., a publicly traded biopharmaceutical company, and several private companies. Mr. Mitchell holds a B.S. from the University of Illinois and an M.B.A. from the University of California at Berkeley. Mr. Mitchell is an appropriate member of the Board of Directors given his expertise and experience in the pharmaceutical industry, pharmaceutical development, and in corporate finance and governance.

#### **INFORMATION REGARDING THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE**

##### **INDEPENDENCE OF THE BOARD OF DIRECTORS**

As required under the Nasdaq Stock Market ( Nasdaq ) listing standards, a majority of the members of a listed company's board of directors must qualify as independent, as affirmatively determined by the board of directors. Our Board of Directors consults with the Company's counsel to ensure that the Board of Directors' determinations are consistent with relevant securities and other laws and regulations regarding the definition of independent, including those set forth in pertinent listing standards of the Nasdaq, as in effect from time to time.

Consistent with these considerations, after review of all relevant identified transactions or relationships between each director, or any of his or her family members, and the Company, its senior management and its independent registered public accounting firm, the Board of Directors has affirmatively determined that the following four directors are independent directors within the meaning of the applicable Nasdaq listing standards:

8.

Mr. Conway, Dr. Grais, Mr. Mitchell and Dr. Woosley. In making this determination, the Board of Directors found that none of the directors or nominees for director had a material or other disqualifying relationship with the Company. Dr. Bristow, the Company's President and Chief Executive Officer is not an independent director by virtue of his relationship with the Company.

#### **BOARD LEADERSHIP STRUCTURE**

The Company has structured its Board of Directors in a way that the Company believes effectively serves its objectives of corporate governance and management oversight. The Company separates the roles of Chief Executive Officer and Chairman of the Board of Directors in recognition of the differences between the two roles. The Company believes that the Chief Executive Officer should be responsible for the day to day leadership and performance of the Company, while the Chairman of the Board of Directors should work with the Chief Executive Officer and the rest of the Board of Directors to set the strategic direction for the Company and provide guidance to, and oversight of the Chief Executive Officer. The Chairman also sets the agenda for meetings of the Board of Directors and presides over them.

Mr. Conway, who is an independent director, was elected Chairman of the Board of Directors in 2014. In this capacity, Mr. Conway, among other things, calls and presides over Board meetings, including meetings of the independent directors, and sets meeting agendas. In this role, Mr. Conway can effectively coordinate between the Board and management regarding risk management issues and the implementation of appropriate responses, and can help ensure the effective independent functioning of the Board of Directors in its oversight responsibilities. Accordingly, the Chairman has substantial ability to shape the work of the Board of Directors.

#### **ROLE OF THE BOARD OF DIRECTORS IN RISK OVERSIGHT AND RISK MANAGEMENT**

One of the Board of Directors' key functions is informed oversight of the Company's risk management process. The Board of Directors does not have a standing risk management committee, but rather administers this oversight function directly through the Board of Directors as a whole, as well as through various standing committees of the Board of Directors that address risks inherent in their respective areas of oversight. In particular, while the Board of Directors is responsible for monitoring and assessing strategic risk exposure, the Audit Committee has the responsibility to consider and discuss the major financial risk exposures and the steps management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The Audit Committee also monitors compliance with legal and regulatory requirements, in addition to oversight of the performance of ARCA's accounting and financial reporting processes. The nominating and corporate governance committee of the Board of Directors (the Nominating and Corporate Governance Committee) monitors the effectiveness of the corporate governance guidelines, including whether they are successful in preventing illegal or improper liability-creating conduct. The compensation committee of the Board of Directors (the Compensation Committee) assesses and monitors whether any compensation policies and programs have the potential to encourage excessive risk-taking. The entire Board of Directors and its committees address risk management issues from time-to-time and at least annually meet with the employees responsible for risk management in the committees' respective areas of oversight. Both the Board of Directors as a whole and the various standing committees receive periodic reports from the employees responsible for risk management, as well as incidental reports as matters may arise. It is the responsibility of the committee chairs to report findings regarding material risk exposures to the Board of Directors as quickly as possible.

#### **MEETINGS OF THE BOARD OF DIRECTORS**

The Board of Directors met six times during the 2015 fiscal year. The independent members of the Board of Directors met separately as a group in connection with each of the four regularly scheduled board meetings in 2015. All members of the Board of Directors attended at least 75% of the meetings of the Board of Directors and at least 75%

the meeting of the committees of the Board of Directors of which each director was a member.

9.

**INFORMATION REGARDING COMMITTEES OF THE BOARD OF DIRECTORS**

The Board of Directors has three standing committees: the Audit Committee, the Compensation Committee, and the Nominating and Corporate Governance Committee. The following table provides membership and meeting information for fiscal year 2015, for each of the committees of the Board of Directors:

Name	Audit	Compensation	Nominating and Corporate Governance
Dr. Michael R. Bristow			
Dr. Linda Grais		X*	X
Dr. Raymond L. Woosley	X	X	X*
Mr. Robert E. Conway	X*	X	
Mr. Dan J. Mitchell	X		X
Total meetings in fiscal 2015	4	5	4

\* Current Committee Chairperson.

Below is a description of each committee of the Board of Directors. Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. The Board of Directors has determined that each member of each committee meets the applicable Nasdaq rules and regulations regarding independence and that each member is free of any relationship that would impair his or her individual exercise of independent judgment with regard to the Company.

**Audit Committee**

The Audit Committee was established by the Board of Directors in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the Exchange Act), to oversee the Company's corporate accounting and financial reporting processes and audits of its financial statements. For this purpose, the Audit Committee performs several functions. The Audit Committee evaluates the performance of and assesses the qualifications of the independent registered public accounting firm; determines and approves the engagement of the independent registered public accounting firm; determines whether to retain or terminate the existing independent registered public accounting firm or to appoint and engage a new independent registered public accounting firm; reviews and approves the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent registered public accounting firm on the Company's audit engagement team as required by law; reviews and approves or rejects transactions between the company and any related persons; confers with management and the independent registered public accounting firm regarding the effectiveness of internal controls over financial reporting; establishes procedures, as required under applicable law, for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters; and meets to review the Company's annual audited financial statements and quarterly financial statements with management and the independent registered public accounting firm, including a review of the Company's disclosures under Management's Discussion and Analysis of Financial Condition and Results of Operations. The Audit Committee is currently composed of three directors: Mr. Conway (chair), Mr. Mitchell and Dr. Woosley. The Audit Committee met four times during the fiscal year. The Board of Directors has adopted a written charter of the Audit Committee that is available to stockholders on the Company's website at



[www.arcabiopharma.com](http://www.arcabiopharma.com).

The Board of Directors reviews the Nasdaq listing standards definition of independence for audit committee members on an annual basis and has determined that all members of the Audit Committee are independent (as independence is currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the Nasdaq listing standards). The Board of Directors has also determined that Mr. Conway qualifies as an audit committee financial expert, as defined in applicable SEC rules. The Board of Directors made a qualitative assessment of Mr. Conway's level of knowledge and experience based on a number of factors, including his prior experience, business acumen and independence.

## Report of the Audit Committee of the Board of Directors<sup>1</sup>

The Audit Committee has reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2015, with management of the Company. The Audit Committee has discussed with the independent registered public accounting firm the matters required to be discussed by Statement on Auditing Standards No. 61, as amended (AICPA, *Professional Standards*, Vol. 1, AU section 380), as adopted by the Public Company Accounting Oversight Board ( PCAOB ) in Rule 3200T. The Audit Committee has also received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence, and has discussed with the independent registered public accounting firm the accounting firm's independence. Based on the foregoing, the Audit Committee has recommended to the Board of Directors that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

Mr. Robert Conway

Mr. Dan Mitchell

Dr. Raymond Woosley

## Compensation Committee

The Compensation Committee is currently composed of three directors: Mr. Robert Conway, Dr. Linda Grais (chair) and Dr. Raymond Woosley. All members of the Compensation Committee are independent, as independence is currently defined in Rule 5605(a)(2) of the Nasdaq listing standards. The Compensation Committee met five times during the fiscal year. The Compensation Committee has adopted a written charter that is available to stockholders on the Company's website at [www.arcabiopharma.com](http://www.arcabiopharma.com).

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

overseeing succession planning for senior management of the Company, including a review of the performance and advancement potential of current and future senior management and succession plans for each and recommending, as appropriate, the retention of potential succession candidates;

assessing the overall compensation structure of the Company and evaluating and recommending changes to the Company's compensation philosophies and strategies;

reviewing and approving performance-based compensation plans or programs, including establishing goals and targets, applicable to the Chief Executive Officer and other members of the management team;

administering, reviewing, and approving all executive compensation programs or plans, and all of the Company's incentive compensation and stock plans and awards thereunder of the Company, including amendments to the programs, plans or awards made thereunder; and

preparing and approving the Report of the Compensation Committee to be included as part of the Company's annual meeting proxy statement, to the extent required.

<sup>1</sup> The material in this report is not soliciting material, is not deemed filed with the Commission and is not to be incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

11.

### *Compensation Committee Processes and Procedures*

Typically, the Compensation Committee meets on a regular basis as it deems appropriate. The agenda for each meeting is usually developed by the Chair of the Compensation Committee. The Compensation Committee meets regularly in executive session. However, from time to time, various members of management and other employees as well as outside advisors or consultants may be invited by the Compensation Committee to make presentations, to provide financial or other background information or advice or to otherwise participate in Compensation Committee meetings. The Chief Executive Officer may not participate in, or be present during, any deliberations or determinations of the Compensation Committee regarding his compensation or individual performance objectives. The Compensation Committee has the sole authority to retain compensation consultants to assist in its evaluation of executive and director compensation, including the authority to approve the consultant's reasonable fees and other retention terms.

In June 2013, the Company's Compensation Committee reviewed the Company's executive compensation in light of general market conditions in the life science industry. As part of this review process, the Compensation Committee identified a peer group of biotechnology companies that it viewed as having a similar profile to ARCA at that time.

In setting 2015 base salary and cash bonus award amounts for the ARCA Named Executive Officers, the Compensation Committee took into account peer group data and factors specific to the Company, and targeted cash compensation to be consistent with these metrics. The Compensation Committee recommended, and the Board of Directors approved, a base salary of \$286,759 for Dr. Bristow, the Company's President and Chief Executive Officer, a base salary of \$285,600 for Mr. Keuer, the Company's Chief Operating Officer, and a base salary of \$280,273 for Mr. Ozeroff, the Company's Senior Vice President and General Counsel, for the fiscal year 2015. In early 2016, Compensation Committee recommended and the Board of Directors approved cash bonuses based on previous performance for the Named Executive Officers (as defined below), and also approved increases to Named Executive Officer salaries for the fiscal year 2016 as described in below under Executive Compensation .

Historically, the Compensation Committee has made most of the significant adjustments to annual compensation, determined bonus and equity awards and established new performance objectives at one or more meetings held during the first quarter of the year. The Company has deferred equity awards for 2016 and future performance pending final approval of ARCA's amended and restated 2013 Equity Incentive Plan by the Company's stockholders, but expects to make such grants later in the year. However, the Compensation Committee also considers matters related to individual compensation, such as compensation for new executive hires, as well as high-level strategic issues, such as the efficacy of the Company's compensation strategy, potential modifications to that strategy and new trends, plans or approaches to compensation, at various meetings throughout the year. Generally, the Compensation Committee's process comprises two related elements: the determination of compensation levels and the establishment of performance objectives for the current year.

The Compensation Committee reviews and approves the compensation of the Chief Executive Officer and the other executive officers of the Company, including annual base salaries, annual and long-term incentive or bonus awards, employment agreements, and severance and change in control agreements/provisions, in each case as, when and if appropriate, and any special or supplemental benefits. For executives other than the Chief Executive Officer, the Compensation Committee solicits and considers evaluations and recommendations submitted to the Compensation Committee by the Chief Executive Officer. The Compensation Committee evaluates the performance of the Chief Executive Officer in light of Company and individual goals and objectives, and makes appropriate recommendations for improving performance. In performing the evaluation, the Chair of the Compensation Committee may solicit comments from the other non-employee members of the Board of Directors and lead the Board of Directors in an overall review of the Chief Executive Officer's performance in an executive session of non-employee members of the Board of Directors. If the compensation for the Chief Executive Officer or any other executive officer is governed by an employment agreement, the Compensation Committee approves such employment agreement and any amendments

thereto.

12.

For all executives as part of its deliberations, the Compensation Committee may review and consider, as appropriate, materials such as financial reports and projections, operational data, tax and accounting information, tally sheets that set forth the total compensation that may become payable to executives in various hypothetical scenarios, executive and director stock ownership information, company stock performance data, analyses of historical executive compensation levels and current Company-wide compensation levels.

### **Nominating and Corporate Governance Committee**

The Nominating and Corporate Governance Committee is responsible for identifying, reviewing and evaluating candidates to serve as directors of the Company (consistent with criteria approved by the Board of Directors), reviewing and evaluating incumbent directors, recommending to the Board of Directors candidates for election to the Board of Directors, making recommendations to the Board of Directors regarding compensation for service on the Board of Directors and the committees thereof, making recommendations to the Board of Directors regarding the membership of the committees of the Board of Directors, assessing the performance of the Board of Directors and developing a set of corporate governance principles for the Company. The Nominating and Corporate Governance Committee is currently composed of three directors, Dr. Grais, Mr. Mitchell and Dr. Woosley (chair). All members of the Nominating and Corporate Governance Committee in 2015 were independent (as independence is currently defined in Rule 5605(a)(2) of the Nasdaq listing standards). The Nominating and Corporate Governance Committee met four times during the 2015 fiscal year. The Nominating and Corporate Governance Committee has adopted a written charter that is available to stockholders on the Company's website at [www.arcabiopharma.com](http://www.arcabiopharma.com).

The Nominating and Corporate Governance Committee periodically reviews the compensation of non-employee Directors for service on the Board of Directors and committees thereof. In 2015, the Nominating and Corporate Governance Committee began a review of its Director compensation levels in light of general market conditions in the life science industry and in comparison to other clinical stage biopharmaceutical companies. In early 2016, the Nominating and Corporate Governance Committee recommended, and the Board of Directors approved, revised compensation for non-employee Directors, discussed in Director Compensation below.

The Board of Directors has adopted a process for identifying and evaluating director nominees, including stockholder nominees. Before recommending an individual to the Board of Directors for membership on the Board of Directors, the Nominating and Corporate Governance Committee canvasses its members and the Company's management team for potential candidates for the Board of Directors. The Nominating and Corporate Governance Committee also uses its network of contacts to identify potential candidates and, if it deems appropriate, may also engage a professional search firm. The Nominating and Corporate Governance Committee will consider stockholders' recommendations for nominees to serve as director if notice is timely received by the Secretary of the Company. Candidates nominated by stockholders will be evaluated in the same manner as other candidates. The Nominating and Corporate Governance Committee keeps the Board of Directors apprised of its discussions with potential nominees, and the names of potential nominees received from its current directors, management, and stockholders, if the stockholder notice of nomination is timely made.

Although the Board of Directors has not adopted a fixed set of minimum qualifications for candidates for membership on the Board of Directors, the Nominating and Corporate Governance Committee generally considers several factors in its evaluation of a potential member, such as the candidate's education, professional background and field of expertise including industry or academic experience in the pharmaceutical and biotechnology fields, experience in corporate governance and management, the reasonable availability of the potential member to devote time to the affairs of the Company, as well as any other criteria deemed relevant by the Board of Directors or the Nominating and Corporate Governance Committee. However, the Nominating and Corporate Governance Committee retains the right to modify these qualifications from time to time. Candidates for director nominees are reviewed in the context of the current composition of the Board of Directors, the operating requirements of the Company and the long-term interests of stockholders. In conducting this assessment, the Nominating and Corporate Governance Committee typically

considers diversity, age, skills and such other factors as it deems appropriate given the current needs of the Board of Directors and the Company, to maintain a balance of knowledge, experience and capability. The Nominating and Corporate Governance Committee believes it is essential that Board of Directors members come from a variety of backgrounds and experiences.

13.

In the case of incumbent directors whose terms of office are set to expire, the Nominating and Corporate Governance Committee reviews these directors' overall contributions to the Company and the Board of Directors during their terms, including level of attendance, level of participation, quality of performance and contribution to the Board of Directors' responsibilities and actions, and any relationships and transactions that might impair the directors' independence. In the case of new director candidates, the Nominating and Corporate Governance Committee also determines whether the nominee is independent for Nasdaq and SEC purposes, which determination is based upon applicable Nasdaq listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The Nominating and Corporate Governance Committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the Board of Directors. The Nominating and Corporate Governance Committee meets to discuss and consider the candidates' qualifications and then determines whether to recommend a nominee to the Board of Directors by majority vote.

Stockholders who wish to recommend individuals for consideration by the Nominating and Corporate Governance Committee to become nominees for election to the Board of Directors may do so by delivering a written recommendation to the Nominating and Corporate Governance Committee addressed to the Corporate Secretary, between 60 and 90 days before the one year anniversary date of ARCA's last annual meeting of stockholders. Recommendations must include the full name of the proposed nominee, a description of the proposed nominee's business experience for at least the previous five years, complete biographical information, a description of the proposed nominee's qualifications as a director, and a representation that the recommending stockholder is a beneficial or record owner of ARCA's stock. Any such submission must be accompanied by the written consent of the proposed nominee to be named as a nominee and to serve as a director if elected. To date, the Nominating and Corporate Governance Committee has not rejected a timely director nominee from a stockholder.

In 2015, the Nominating and Corporate Governance Committee did not pay any fees to assist in the process of identifying or evaluating director candidates.

#### **STOCKHOLDER COMMUNICATIONS WITH THE BOARD OF DIRECTORS**

Stockholders who wish to communicate with the Board of Directors may do so by e-mail by using the following email address: [directors@arcabiopharma.com](mailto:directors@arcabiopharma.com); or by mail by following the directions as set forth on ARCA's website at [www.arcabiopharma.com](http://www.arcabiopharma.com), under the section titled "Corporate Governance" and the subsection titled "Governance Documents".

#### **CODE OF BUSINESS CONDUCT AND ETHICS**

The Company has adopted the ARCA biopharma, Inc. Code of Business Conduct and Ethics that applies to all officers, directors and employees. The Code of Business Conduct and Ethics is available on the Company's website at [www.arcabiopharma.com](http://www.arcabiopharma.com). If the Company makes any substantive amendments to the Code of Business Conduct and Ethics or grants any waiver from a provision of the Code of Business Conduct and Ethics to any executive officer or director, the Company will promptly disclose the nature of the amendment or waiver on its website and file any current report on Form 8-K required by applicable law or Nasdaq listing standards.



**PROPOSAL 2****RATIFICATION OF SELECTION OF THE INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Audit Committee has selected KPMG LLP ( KPMG ) as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2016, and has further directed that management submit the selection of the independent registered public accounting firm for ratification by the stockholders at the Annual Meeting. KPMG has audited the Company's fiscal year financial statements since 2009. Representatives of KPMG are expected to be present at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

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

The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the Annual Meeting will be required to ratify the selection of KPMG. Broker non-votes are counted towards a quorum, but are not counted for any purpose in determining whether this matter has been approved.

**PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The following table represents aggregate fees billed, or expected to be billed, to the Company for the fiscal year ended December 31, 2015, and December 31, 2014, by KPMG, the Company's independent registered public accounting firm.

	<b>Fiscal Year Ended 2015</b>	<b>Fiscal Year Ended 2014</b>
Audit Fees (1)	\$166,650	\$140,760
Audit-related Fees	-	-
Tax Fees	-	-
All Other Fees	-	-
All Other Fees	-	-
Total Fees	\$166,650	\$140,760

(1) Audit Fees include fees for the (i) audit of the financial statements included in our Form 10-K for our fiscal years ended December 31, 2015, and December 31, 2014, (ii) review of interim financial statements included on Forms 10-Q and (iii) attest, consent and review services normally provided by the accountant in connection with SEC filings.

All fees described above were approved by the Audit Committee.



**PRE-APPROVAL POLICIES AND PROCEDURES**

The above services performed by the independent registered public accounting firm were pre-approved in accordance with the pre-approval policy and procedures adopted by the Audit Committee. This policy describes the permitted audit, audit-related, tax, and other services that the independent registered public accounting firm may perform. The policy also requires that the independent registered public accounting firm provide in writing:

an annual description of all relationships between the independent registered public accounting firm and the client that may reasonably be thought to bear on independence;

confirm that, in the independent registered public accounting firm's professional judgment, the independent registered public accounting firm is independent of the client under SEC requirements;

discuss with the Audit Committee the independent registered public accounting firm's independence and the potential effects on its independence of performing any non-audit related services.

The services expected to be performed by the independent registered public accounting firm during the subsequent fiscal year are presented to the Audit Committee for pre-approval. Any pre-approval must describe, in writing, the particular service or category of services.

Requests for audit, audit-related, tax, and other services not contemplated by those pre-approved services must be submitted to the Audit Committee for specific pre-approval. Generally, pre-approval is considered at the Audit Committee's regularly scheduled meetings. However, the authority to grant specific pre-approval between meetings, as necessary, has been delegated to the chairman of the Audit Committee. In the event that the chairman is not available, the other two Audit Committee members together have the authority to grant specific pre-approval between meetings. The chairman or the other members must update the Audit Committee at the next regularly scheduled meeting of any services that were granted specific pre-approval.

The Audit Committee pre-approved all audit related, tax and other services rendered in 2015 and did not rely on the waiver of pre-approval requirement provided by paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X promulgated under the Exchange Act.

**THE BOARD OF DIRECTORS RECOMMENDS**

**A VOTE IN FAVOR OF PROPOSAL 2.**

**PROPOSAL 3**

**APPROVAL OF THE AMENDED AND RESTATED ARCA 2013 EQUITY INCENTIVE PLAN**

The Amended and Restated ARCA biopharma, Inc. 2013 Equity Incentive Plan, or Amended Plan, was adopted by our Board of Directors on April 22, 2016, subject to stockholder approval. We are asking our stockholders to approve the Amended Plan, which amends and restates the 2013 Equity Incentive Plan, to:

add an annual limit on director compensation to align with current corporate governance practices;

increase by 1,000,000 shares the number of shares of our Common Stock reserved for issuance under the 2013 Equity Incentive Plan;

update and adjust certain share limits in the plan to reflect our reverse stock split in 2015 and our current determination as to appropriate annual limit levels; and

make other technical revisions or otherwise non-material revisions to the Amended Plan.

**Impact of Stockholder Approval**

Approval of the Amended Plan will allow us to continue to grant stock awards at levels determined appropriate by our Board of Directors and Compensation Committee. The Amended Plan will allow us to utilize a broad array of equity incentives and performance cash incentives to secure and retain the services of our employees, consultants and directors, and to provide long term incentives that align the interests of our employees, consultants and directors with the interests of our stockholders.

In addition, the Amended Plan retains its provisions that are designed to protect our stockholders' interests and to reflect corporate governance best practices including:

Stockholder approval is required for additional shares. The Amended Plan authorizes a fixed number of shares, so that stockholder approval is required to issue any additional shares, allowing our stockholders to have direct input on our equity compensation programs.

No evergreen provision. The Amended Plan does not contain an evergreen feature pursuant to which the shares authorized for issuance under the Amended Plan can be automatically replenished.

No discounted stock options or stock appreciation rights. All stock options and stock appreciation rights must have an exercise price equal to or greater than the fair market value of our Common Stock on the date the stock option or stock appreciation right is granted.

No automatic single trigger vesting. The Amended Plan does not provide for automatic single trigger vesting on a change in control.

No automatic grants. The Amended Plan does not provide for any automatic grants to employees, consultants or directors.

Limit on director compensation. The Amended Plan contains an annual limit on director compensation (both cash and equity-based) to reflect our commitment to current best practices in corporate governance.

Stockholder approval of the Amended Plan will not affect any awards that are already outstanding under the 2013 Equity Incentive Plan.

We manage our long-term stockholder dilution by limiting the number of equity incentive awards granted annually. The Board of Directors monitors our annual stock award Burn Rate, Dilution and Overhang (each as

defined below), among other factors, in its efforts to maximize stockholders' value by granting what, in the Board of Directors' judgment, are the appropriate number of equity incentive awards necessary to attract, reward, and retain employees, consultants and directors. The table below illustrates our Burn Rate, Dilution, and Overhang for the past three fiscal years with details of each calculation noted below the table.

	<u>2015</u>	<u>2014</u>	<u>2013</u>
<b>Burn Rate (1)</b>	<b>0.84%</b>	<b>2.05%</b>	<b>13.45%</b>
<b>Dilution (2)</b>	<b>3.08%</b>	<b>9.47%</b>	<b>13.06%</b>
<b>Overhang (3)</b>	<b>2.39%</b>	<b>6.59%</b>	<b>7.00%</b>

(1) Burn Rate is (number of shares subject to equity awards granted during a fiscal year)/weighted average common shares outstanding for that fiscal year.

(2) Dilution is (number of shares subject to equity awards + the number of shares available for future awards at the end of a fiscal year)/(number of shares outstanding at the end of the fiscal year + number of share subject to equity awards + number of shares available for future awards).

(3) Overhang is (number of shares subject to equity awards at the end of a fiscal year)/(number of shares outstanding at the end of the fiscal year + number of shares subject to equity awards + number of shares available for future awards).

If our request to approve the Amended Plan is approved by our stockholders, we will have a share reserve available for grant as described below under "Description of the Amended Plan - Shares Available for Awards", which we anticipate being a sufficient share reserve for stock awards to be granted over a period of approximately three years following our 2016 Annual Meeting of Stockholders. We believe that this pool size is necessary to provide sufficient reserved shares for a level of grants that will attract, retain, and motivate employees and other participants over that time period in a competitive hiring environment.

If this Proposal is approved by our stockholders, the Amended Plan will become effective on the date of such approval. In the event that our stockholders do not approve this Proposal, the Amended Plan will not become effective and the 2013 Equity Incentive Plan will continue in its current form. This will create serious constraints on our ability to use equity-based compensation to attract, retain and motivate our employees in what is an extremely competitive hiring environment.

Approval of the Amended Plan by our stockholders will also constitute approval of terms and conditions set forth therein that will permit us to grant awards under the Amended Plan that may qualify as "performance-based compensation" within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"). Code Section 162(m) of the Code denies a deduction to any publicly held corporation and its affiliates for certain compensation paid to "covered employees" in a taxable year to the extent that compensation to a covered employee exceeds \$1 million. However, some kinds of compensation, including qualified "performance-based compensation", are not subject to this deduction limitation and we believe it is in the best interests of the Company and our stockholders to preserve the ability to grant "performance-based compensation" under Section 162(m) of the Code. For the grant of awards under a plan to qualify as "performance-based compensation" under Section 162(m) of the Code, among other

things, the plan must (i) describe the employees eligible to receive such awards, (ii) provide a per-person limit on the number of shares subject to various types of awards, and the amount of cash that may be subject to performance cash awards, granted to any employee under the plan in any year, and (iii) include one or more pre-established business criteria upon which the performance goals for performance awards may be granted (or become vested or exercisable). These terms must be approved by the stockholders and, accordingly, our stockholders are requested to approve the Amended Plan, which includes terms regarding eligibility for awards, per-person limits on awards and the business criteria for performance awards granted under the Amended Plan (as described in the summary below).

## Description of the Amended Plan

The material features of the Amended Plan are outlined below. This summary is qualified in its entirety by reference to the complete text of the Amended Plan. Stockholders are urged to read the actual text of the Amended Plan in its entirety, which is appended as Appendix A to the copy of this Proxy Statement filed with the SEC, which may be accessed from the SEC's website at [www.sec.gov](http://www.sec.gov).

### *Types of Awards*

The terms of the Amended Plan provide for the grant of incentive stock options, nonstatutory stock options, restricted stock awards, restricted stock unit awards, stock appreciation rights, other stock awards, and performance awards that may be settled in cash, stock, or other property.

### *Shares Available for Awards*

If this Proposal is approved, the aggregate number of shares of our Common Stock that may be issued pursuant to stock-based awards under the Amended Plan from and after its effective date will not exceed 1,259,675 shares, which is equal to the sum of (a) 47,654 shares remaining available for grant under the Plan prior to the Effective Date of its amendment and restatement; (b) an additional 1,000,000 newly reserved shares, and (c) any shares subject to stock-based awards granted under the Amended Plan prior to the Effective Date of its amendment and restatement, which become available for grant under the Amended Plan from time to time due to their reversion to the Amended Plan in accordance with its terms, in an amount not to exceed 212,021 shares (such aggregate number of shares described in (a), (b) and (c) above, the Share Reserve ).

If a stock-based award granted under the Amended Plan (1) expires or otherwise terminates without all of the shares covered by the award being issued, or (2) is settled in cash (that is, the holder of the stock-based award receives cash rather than stock), the expiration, termination, or settlement of the stock award will not reduce or offset the number of shares of our Common Stock that may be issued under the Plan. If any shares of our Common Stock issued under a stock-based award granted under the Amended Plan are forfeited back to or repurchased by us because of the failure to vest, then the forfeited or repurchased shares will revert to and again become available for issuance under the Amended Plan. Any shares that we reacquire in satisfaction of tax withholding obligations on a stock-based award or as consideration for the exercise price or purchase price of a stock-based award will again become available for issuance under the Amended Plan.

As of April 12, 2016, there were 47,654 shares available for grant under the 2013 Equity Incentive Plan. As of April 12, 2016, stock options to purchase approximately 165,264 shares were outstanding and awards other than stock options covering aggregate of 46,757 shares were outstanding. The weighted-average exercise price of all stock options outstanding as of April 12, 2016 was \$8.35, and the weighted-average remaining term of such stock options was 8.15 years. As of April 12, 2016, the closing price of our Common Stock as reported on the NASDAQ Global Market was, rounded to the nearest penny, \$3.50 per share, a total of 9,066,348 shares of our Common Stock were outstanding.

### *Eligibility*

All of our employees, non-employee directors and consultants are eligible to participate in the Amended Plan and may receive all types of awards; provided that incentive stock options may be granted under the Amended Plan only to our employees (including officers) and employees of our affiliates. As of April 12, 2016, we have 18 employees (including four officers) and four non-employee directors who are eligible for the Amended Plan.





### *Grant Limits*

Under the Amended Plan, a maximum of 300,000 shares of our Common Stock may be granted to any one participant during any one calendar year pursuant to stock options, stock appreciation rights and other stock awards whose value is determined by reference to an increase over an exercise price or strike price of at least 100% of the fair market value of our Common Stock on the date of grant. However, the Company may make an additional one-time grant of up to 100,000 shares of our Common Stock to any newly-hired employee pursuant to such awards. An option which is canceled (or a freestanding stock appreciation right that has its exercise price reduced to reflect a reduction in the fair market value of our Common Stock) in the same fiscal year of the Company in which it was granted will continue to be counted against such limit for such fiscal year.

A maximum of 50,000 shares of our Common Stock may be granted to any one participant during any one calendar year as a restricted stock award or restricted unit award, subject to vesting conditions based on the attainment during a performance period of the performance goals described below. However, the Company may make an additional one-time grant of up to 15,000 shares of our Common Stock to any newly-hired employee pursuant to such awards.

The maximum amount covered by performance awards that may be granted to any one participant in any one calendar year (whether the grant, vesting or exercise is contingent upon the attainment during a performance period of the performance goals described below) is 100,000 shares of our Common Stock in the case of performance stock awards and \$2,000,000 in the case of performance cash awards. Such limits are designed to allow us to grant awards that are exempt from the \$1 million limitation on the income tax deductibility of compensation paid per covered employee imposed by Section 162(m) of the Code.

We have added to the Amended Plan an annual limit on non-employee director compensation. The maximum number of shares of Common Stock subject to stock awards granted under the Amended Plan or otherwise during any one fiscal year to any non-employee director, taken together with any cash fees paid by the Company to such non-employee director during that fiscal year for service on the Board, will not exceed \$300,000 in total value. The Board may make exceptions to this limit in extraordinary circumstances (for example, to compensate such individual for interim service in the capacity of an officer of the Company), as the Board may determine in its discretion, provided that the non-employee director receiving the additional compensation may not participate in the decision to award this compensation or in other compensation decisions involving non-employee directors.

### *Administration*

The Amended Plan is administered by our Board of Directors, which may in turn delegate authority to administer the Amended Plan to a committee. Our Board of Directors has delegated concurrent authority to administer the Amended Plan to the Compensation Committee, but may, at any time, revert in itself some or all of the power previously delegated to the Compensation Committee. Each of the Board of Directors and the Compensation Committee are considered to be the Plan Administrator for purposes of this Proposal. Subject to the terms of the Amended Plan, the Plan Administrator may determine the recipients, numbers and types of awards to be granted, and terms and conditions of the awards, including the period of their exercisability and vesting. Subject to the limitations set forth below, the Plan Administrator also determines the fair market value applicable to a stock award and the exercise price of stock options and stock appreciation rights granted under the Amended Plan.

The Plan Administrator may also delegate to one or more of our officers the authority to designate employees who are not officers to be recipients of certain stock awards and the number of shares subject to such stock awards, provided that such delegation must specify the total number of shares of our Common Stock that may be subject to the stock awards granted by such officer and such officer may not grant a stock award to himself or herself.



Under the Amended Plan, the Plan Administrator has the authority to reprice any outstanding stock award by reducing the exercise, purchase or strike price of the stock award or to cancel any outstanding stock award that has an exercise price greater than the current fair market value of our Common Stock in exchange for cash or other stock awards without obtaining the approval of our stockholders prior to the repricing or cancellation and re-grant event.

### *Stock Options*

Stock options may be granted under the Amended Plan pursuant to stock option agreements. The Amended Plan permits the grant of stock options that qualify as incentive stock options, or ISOs, and nonstatutory stock options, or NSOs. Individual stock option agreements may be more restrictive as to any or all of the permissible terms described in this section.

The exercise price of NSOs may not be less than 100% of the fair market value of the Common Stock subject to the stock option on the date of grant. The exercise price of ISOs may not be less than 100% of the fair market value of the Common Stock subject to the stock option on the date of grant and, in some cases (see *Limitations* below), may not be less than 110% of such fair market value.

The term of stock options granted under the Amended Plan may not exceed ten years and, in some cases (see *Limitations* below), may not exceed five years. Except as explicitly provided otherwise in an optionholder's stock option agreement, stock options granted under the Amended Plan generally terminate three months after termination of the optionholder's service unless (i) termination is due to the optionholder's disability, in which case the stock option may be exercised (to the extent the stock option was exercisable at the time of the termination of service) at any time within 12 months following termination; (ii) the optionholder dies before the optionholder's service has terminated, or within the period (if any) specified in the stock option agreement after termination of service for a reason other than death, in which case the stock option may be exercised (to the extent the stock option was exercisable at the time of the optionholder's death) within 18 months following the optionholder's death by the person or persons to whom the rights to such stock option have passed; (iii) the optionholder is terminated for cause in which case the stock option will cease to be exercisable immediately upon the optionholder's termination; or (iv) the stock option by its terms specifically provides otherwise. A stock option term may be extended in the event that exercise of the stock option following termination of service is prohibited by applicable securities laws or if the sale of stock received upon exercise of a stock option would violate our insider trading policy. In no event may a stock option be exercised after its original expiration date.

Acceptable forms of consideration for the purchase of our Common Stock pursuant to the exercise of a stock option under the Amended Plan will be determined by the Plan Administrator and may include (i) cash, check, bank draft or money order made payable to us, (ii) payment pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board, (iii) Common Stock previously owned by the optionholder, (iv) a net exercise feature (for NSOs only), or (v) other legal consideration approved by the Plan Administrator.

Stock options granted under the Amended Plan may become exercisable in cumulative increments, or vest, as determined by the Plan Administrator at the rate specified in the stock option agreement. Shares covered by different stock options granted under the Amended Plan may be subject to different vesting schedules as the Plan Administrator may determine. The Plan Administrator also has flexibility to provide for accelerated vesting of stock options in certain events.

Generally, an optionholder may not transfer a stock option other than by will or the laws of descent and distribution or a domestic relations order with the approval of the Plan Administrator or a duly authorized officer. Additionally, an optionholder may, with the approval of the Plan Administrator or a duly authorized officer, designate a beneficiary who may exercise the stock option following the optionholder's death.

*Limitations on Incentive Stock Options*

The aggregate fair market value, determined at the time of grant, of shares of our Common Stock with respect to ISOs that are exercisable for the first time by an optionholder during any calendar year under all of our stock plans may not exceed \$100,000. The stock options or portions of stock options that exceed this limit are

21.

treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any affiliate unless the following conditions are satisfied:

the exercise price of the ISO must be at least 110% of the fair market value of the stock subject to the ISO on the date of grant; and

the term of the ISO must not exceed five years from the date of grant.

The aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of ISOs granted under the Amended Plan is 1,259,675 shares.

#### *Restricted Stock Awards*

Restricted stock awards may be granted under the Amended Plan pursuant to restricted stock award agreements. A restricted stock award may be granted in consideration for cash, check, bank draft or money order payable to us, the recipient's services performed for us or an affiliate of ours, or any other form of legal consideration acceptable to the Plan Administrator. Shares of our Common Stock acquired under a restricted stock award may be subject to forfeiture to us in accordance with a vesting schedule to be determined by the Plan Administrator. Rights to acquire shares of our Common Stock under a restricted stock award may be transferred only upon such terms and conditions as are set forth in the restricted stock award agreement. Except as otherwise provided in the applicable restricted stock award agreement, restricted stock awards that have not vested will be forfeited upon the participant's termination of continuous service for any reason.

#### *Restricted Stock Unit Awards*

Restricted stock unit awards may be granted under the Amended Plan pursuant to restricted stock unit award agreements. Payment of any purchase price may be made in any legal form acceptable to the Plan Administrator. We will settle a payment due to a recipient of a restricted stock unit award by delivery of shares of our Common Stock, by cash, by a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the restricted stock unit award agreement. Dividend equivalents may be credited in respect of shares of our Common Stock covered by a restricted stock unit award. Restricted stock unit awards may be subject to vesting in accordance with a vesting schedule to be determined by the Plan Administrator. Except as otherwise provided in the applicable restricted stock unit award agreement, restricted stock units that have not vested will be forfeited upon the participant's termination of continuous service for any reason.

#### *Stock Appreciation Rights*

Stock appreciation rights may be granted under the Amended Plan pursuant to stock appreciation right agreements. Each stock appreciation right is denominated in Common Stock share equivalents. The strike price of each stock appreciation right will be determined by the Plan Administrator but will in no event be less than 100% of the fair market value of the stock subject to the stock appreciation right at the time of grant. The Plan Administrator may also impose restrictions or conditions upon the vesting of stock appreciation rights that it deems appropriate. Stock appreciation rights may be paid in our Common Stock, in cash, in a combination of cash and stock, or in any other form of legal consideration approved by the Plan Administrator and set forth in the stock appreciation right agreement. Stock appreciation rights will be subject to the same conditions upon termination and restrictions on transfer as stock options under the Amended Plan.

22.

### *Performance Awards*

The Amended Plan allows us to grant cash and stock based performance awards that may qualify as performance-based compensation that is not subject to the \$1 million limitation on the income tax deductibility of compensation paid per covered employee imposed by Section 162(m) of the Code. Performance awards may be granted, vest or be exercised based upon the attainment during a specified period of time of specified performance goals. The length of any performance period, the performance goals to be achieved during the performance period, and the measure of whether and to what degree such performance goals have been attained will be determined by the Compensation Committee, except that the Board of Directors also may make any such determinations to the extent that the award is not intended to comply with Section 162(m) of the Code.

In granting a performance award intended to qualify as performance-based compensation under Section 162(m) of the Code, the Compensation Committee will set a period of time, or a performance period, over which the attainment of one or more goals, or performance goals, will be measured. Within the time period prescribed by Section 162(m) of the Code, at a time when the achievement of the performance goals remains substantially uncertain (typically no later than the earlier of the 90th day of a performance period and the date on which 25% of the performance period has elapsed), the Compensation Committee will establish the performance goals, based upon one or more criteria, or performance criteria, enumerated in the Amended Plan and described below. As soon as administratively practicable following the end of the performance period, the Compensation Committee will certify (in writing) whether the performance goals have been satisfied.

Performance goals under the Amended Plan will be based on any one or more of the following performance criteria: revenue; gross margin; operating margin; operating income; pre-tax profit; earnings before interest, taxes and depreciation; net income; cash flow; expenses; the market price of the stock; earnings per share; return on stockholder equity; return on capital; return on net assets; economic value added; number of customers; market share; return on investment; profit after tax; clinical trial milestones; regulatory product approval milestones; strategic partnership milestones; customer satisfaction; and, to the extent that an Award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by the Board of Directors.

Performance goals may be based on a company-wide basis, with respect to one or more business units, divisions, affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. In establishing a performance goal, the Compensation Committee (or the Board of Directors, to the extent that an award is not intended to comply with Section 162(m) of the Code), unless specified otherwise in the award agreement or other document setting forth the performance goals at the time the performance goals are established, will appropriately make adjustments in the method of calculating the attainment of performance goals for a performance period as follows: (1) to exclude restructuring and/or other nonrecurring charges, (2) to exclude exchange rate effects, (3) to exclude the effects of changes to generally accepted accounting principles, (4) to exclude the effects of any statutory adjustments to corporate tax rates, (5) to exclude the effects of any unusual or infrequently occurring items as determined under generally accepted accounting principles, (6) to exclude the dilutive effects of acquisitions or joint ventures, (7) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a Performance Period following such divestiture, (8) to exclude the effect of any change in the outstanding shares of Common Stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends, (9) to exclude the effects of stock based compensation and the award of bonuses under the Company's bonus plans, (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles, (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles, and (12) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item. In addition, the Board of Directors or Compensation Committee retains the discretion to reduce or eliminate the



compensation or economic benefit due upon attainment of performance goals and to define the manner of calculating the performance criteria it selects to use for a performance period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the stock award agreement or the written terms of a performance cash award.

23.

### *Other Stock Awards*

Other forms of stock awards valued in whole or in part with reference to our Common Stock may be granted either alone or in addition to other stock awards under the Amended Plan. The Plan Administrator will have sole and complete authority to determine the persons to whom and the time or times at which such other stock awards will be granted, the number of shares of our Common Stock to be granted and all other conditions of such other stock awards. Other forms of stock awards may be subject to vesting in accordance with a vesting schedule to be determined by the Plan Administrator.

### *Clawback/Recovery*

Stock awards granted under the Amended Plan will be subject to recoupment in accordance with any clawback policy we may be required to adopt pursuant to applicable law and listing requirements. In addition, the Board of Directors may impose such other clawback, recovery or recoupment provisions in any stock award agreement as it determines necessary or appropriate.

### *Changes to Capital Structure*

In the event of certain capitalization adjustments, the Plan Administrator will appropriately adjust: (i) the class(es) and maximum number of securities subject to the Amended Plan, (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of ISOs, (iii) the class(es) and maximum number of securities that may be awarded to any person pursuant to Section 162(m) limits, and (iv) the class(es) and number of securities and price per share of stock subject to outstanding stock awards.

### *Corporate Transactions*

In the event of a corporate transaction (as defined in the Amended Plan and described below), the Board of Directors will have the discretion to take one or more of the following actions with respect to outstanding stock awards (contingent upon the closing or completion of such transaction), unless otherwise provided in the stock award agreement or other written agreement with the participant or unless otherwise provided by the Board of Directors at the time of grant:

arrange for the surviving or acquiring corporation (or its parent company) to assume or continue the award or to substitute a similar stock award for the award (including an award to acquire the same consideration paid to our stockholders pursuant to the corporate transaction);

arrange for the assignment of any reacquisition or repurchase rights held by us with respect to the stock award to the surviving or acquiring corporation (or its parent company);

accelerate the vesting (and, if applicable, the exercisability) of the stock award and, if so determined by the Board of Directors, provide for its termination prior to the effective time of the corporate transaction;

arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us with respect to the award;

cancel or arrange for the cancellation of the stock award, to the extent not vested or exercised prior to the effective time of the corporate transaction, in exchange for such cash consideration, if any, as the Board of Directors may consider appropriate; and

make a payment, in such form as may be determined by the Board of Directors, equal to the excess, if any, of (i) the value of the property the participant would have received upon the exercise of the stock award immediately prior to the effective time of the corporate transaction, over (ii) any exercise price payable in connection with such exercise.

The Board of Directors is not obligated to treat all stock awards or portions of stock awards in the same manner. The Board of Directors may take different actions with respect to the vested and unvested portions of a stock award.

For purposes of the Amended Plan, a corporate transaction will be deemed to occur in the event of a corporate transaction or a change in control. A corporate transaction generally means the consummation of (i) a sale or other disposition of all or substantially all of our consolidated assets, (ii) a sale or other disposition of at least 90% of our outstanding securities, (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation, or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our Common Stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

#### *Change in Control*

Under the Amended Plan, a stock award may be subject to additional acceleration of vesting and exercisability upon or after a change in control (as defined in the Amended Plan) as may be provided in the stock award agreement or other written agreement with the participant, but in the absence of such provision, or action by the Board of Directors, no such acceleration will occur.

A change of control generally means (i) the acquisition by a person or entity of more than 50% of our combined voting power other than by merger, consolidation or similar transaction, (ii) a consummated merger, consolidation or similar transaction immediately after which our stockholders cease to own more than 50% of the combined outstanding voting power of the surviving entity, (iii) a consummated sale, lease or exclusive license or other disposition of all or substantially of our consolidated assets, or (iv) when a majority of the Board of Directors becomes comprised of individuals whose nomination, appointment, or election was not approved by a majority of the board members or their approved successors.

#### *Plan Amendments and Termination*

Our Board of Directors will have the authority to amend or terminate the Amended Plan at any time. However, except as otherwise provided in the Amended Plan, no amendment or termination of the Amended Plan may materially impair any rights under awards already granted to a participant unless agreed to by the affected participant. We will obtain stockholder approval of any amendment to the Amended Plan as required by applicable law and listing requirements. No ISOs may be granted under the Amended Plan after the tenth anniversary of the earlier of the date the Amended Plan was adopted by the Board of Directors or approved by our stockholders.

#### **U.S. Federal Income Tax Consequences**

The information set forth below is a summary only and does not purport to be complete. The information is based upon current federal income tax rules and therefore is subject to change when those rules change. Because the tax consequences to any recipient may depend on his or her particular situation, each recipient should consult the recipient's tax adviser regarding the federal, state, local, and other tax consequences of the grant or exercise of an award or the disposition of stock acquired as a result of an award. The Amended Plan is not qualified under the provisions of Section 401(a) of the Code and is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974. Our ability to realize the benefit of any tax deductions described below depends on our generation of taxable income as well as the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligations.

#### *Nonstatutory Stock Options*

Generally, there is no taxation upon the grant of an NSO. On exercise, an optionholder will recognize ordinary income equal to the excess, if any, of the fair market value on the date of exercise of the stock over the exercise price. If the optionholder is employed by us or one of our affiliates, that income will be subject to withholding taxes. The optionholder's tax basis in those shares will be equal to their fair market value on the date of exercise of the stock

option, and the optionholder's capital gain holding period for those shares will begin on that date.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the optionholder.

25.

### *Incentive Stock Options*

The Amended Plan provides for the grant of stock options that qualify as incentive stock options, as defined in Section 422 of the Code. Under the Code, an optionholder generally is not subject to ordinary income tax upon the grant or exercise of an ISO. If the optionholder holds a share received on exercise of an ISO for more than two years from the date the stock option was granted and more than one year from the date the stock option was exercised, which is referred to as the required holding period, the difference, if any, between the amount realized on a sale or other taxable disposition of that share and the holder's tax basis in that share will be long-term capital gain or loss.

If, however, an optionholder disposes of a share acquired on exercise of an ISO before the end of the required holding period, which is referred to as a disqualifying disposition, the optionholder generally will recognize ordinary income in the year of the disqualifying disposition equal to the excess, if any, of the fair market value of the share on the date the ISO was exercised over the exercise price. However, if the sales proceeds are less than the fair market value of the share on the date of exercise of the stock option, the amount of ordinary income recognized by the optionholder will not exceed the gain, if any, realized on the sale. If the amount realized on a disqualifying disposition exceeds the fair market value of the share on the date of exercise of the stock option, that excess will be short-term or long-term capital gain, depending on whether the holding period for the share exceeds one year.

For purposes of the alternative minimum tax, the amount by which the fair market value of a share of stock acquired on exercise of an ISO exceeds the exercise price of that stock option generally will be an adjustment included in the optionholder's alternative minimum taxable income for the year in which the stock option is exercised. If, however, there is a disqualifying disposition of the share in the year in which the stock option is exercised, there will be no adjustment for alternative minimum tax purposes with respect to that share. In computing alternative minimum taxable income, the tax basis of a share acquired on exercise of an ISO is increased by the amount of the adjustment taken into account with respect to that share for alternative minimum tax purposes in the year the stock option is exercised.

We are not allowed an income tax deduction with respect to the grant or exercise of an ISO or the disposition of a share acquired on exercise of an ISO after the required holding period. If there is a disqualifying disposition of a share, however, we are allowed a deduction in an amount equal to the ordinary income includible in income by the optionholder, subject to Section 162(m) of the Code and provided that amount constitutes an ordinary and necessary business expense for us and is reasonable in amount, and either the employee includes that amount in income or we timely satisfy our reporting requirements with respect to that amount.

### *Restricted Stock Awards*

Generally, the recipient of a restricted stock award (including a restricted stock award that vests based upon the achievement of performance conditions) will recognize ordinary income at the time the stock is received equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. If, however, the stock is not vested when it is received (for example, if the employee is required to work for a period of time in order to have the right to sell the stock), the recipient generally will not recognize income until the stock becomes vested, at which time the recipient will recognize ordinary income equal to the excess, if any, of the fair market value of the stock on the date it becomes vested over any amount paid by the recipient in exchange for the stock. A recipient may, however, file an election with the Internal Revenue Service, within 30 days following his or her receipt of the stock award, to recognize ordinary income, as of the date the recipient receives the award, equal to the excess, if any, of the fair market value of the stock on the date the award is granted over any amount paid by the recipient for the stock.

The recipient's basis for the determination of gain or loss upon the subsequent disposition of shares acquired from stock awards will be the amount paid for such shares plus any ordinary income recognized either when the stock is

received or when the stock becomes vested.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the stock award.

26.

### *Restricted Stock Unit Awards*

Generally, the recipient of a stock unit structured to conform to the requirements of Section 409A of the Code or an exception to Section 409A of the Code (including a restricted stock unit award that vests based upon the achievement of performance conditions) will recognize ordinary income at the time the stock is delivered equal to the excess, if any, of the fair market value of the shares of our Common Stock received over any amount paid by the recipient in exchange for the shares of our Common Stock. To conform to the requirements of Section 409A of the Code, the shares of our Common Stock subject to a stock unit award may generally only be delivered upon one of the following events: a fixed calendar date (or dates), separation from service, death, disability or a change in control. If delivery occurs on another date, unless the stock units otherwise comply with or qualify for an exception to the requirements of Section 409A of the Code, in addition to the tax treatment described above, the recipient will owe an additional 20% federal tax and interest on any taxes owed.

The recipient's basis for the determination of gain or loss upon the subsequent disposition of shares acquired from stock units will be the amount paid for such shares plus any ordinary income recognized when the stock is delivered.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the stock award.

### *Stock Appreciation Rights*

We may grant under the Amended Plan stock appreciation rights separate from any other award or in tandem with other awards under the Amended Plan.

Where the stock appreciation rights are granted with a strike price equal to the fair market value of the underlying stock on the grant date, the recipient will recognize ordinary income equal to the fair market value of the stock or cash received upon such exercise. Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the stock appreciation right.

### *Cash Awards*

The payment of a cash award (including a cash award that vests based upon the achievement of performance conditions) will result in the recipient's recognition of ordinary income equal to the dollar amount received. Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the cash award.

### **New Plan Benefits**

All future grants under the Amended Plan are within the discretion of the plan administrator and are therefore not determinable.



## Certain Past Grants

The aggregate number of shares of Common Stock subject to stock options granted to our Chief Executive Officer, the other named executive officers (as identified in the Summary Compensation Table, which appears in the section titled Executive Compensation within this proxy statement), and the other individuals and groups indicated, under the Original Plan from September 17, 2013, through December 31, 2015, is reflected in the table below. Since its inception, no other person has been granted 5% or more of the total amount of stock options granted under the Original Plan.

Name and Position	Stock Options Granted	Aggregate Intrinsic Value (in thousands)
Michael R. Bristow, M.D., Ph.D.	51,459	\$0
Thomas A. Keuer	9,653	0
Christopher D. Ozeroff	9,441	0
Executive Officer Group (including named executive officers listed above)	77,597	0
Non-Executive Officer Director Group	19,714	0
Nominee for Election as Director	5,628	0
Each associate of the above-mentioned directors, executive officers or nominees	-	
Each other person who received or is to receive five percent of such stock options, warrants or rights	14,621	0
Employee Group other than Executive Officer Group	43,257	0

The aggregate intrinsic value in the table above represents the total pretax intrinsic value, based on the closing price of our common stock on the NASDAQ Capital Market on December 31, 2015, which would have been received by the option holders had all the option holders with in-the-money options exercised as of that date. Based on this analysis, the options reflected in the table above had no pretax intrinsic value as of such date.

## Required Vote and Board of Directors Recommendation

Approval of Proposal 3 requires the affirmative vote of a majority of the shares present or represented by proxy and entitled to vote at the annual meeting. Abstentions will be counted toward the tabulation of votes cast on the proposal and will have the same effect as Against votes. Broker non-votes are counted towards a quorum, but will have no effect on the outcome of the vote.

Our Board of Directors believes that approval of Proposal 3 is in our best interests and the best interests of our stockholders for the reasons stated above.

### THE BOARD OF DIRECTORS RECOMMENDS

### A VOTE IN FAVOR OF PROPOSAL 3.

**PROPOSAL 4**

**ADVISORY VOTE ON EXECUTIVE COMPENSATION**

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act ), and Section 14A of the Exchange Act, the Company's stockholders are entitled to vote to approve, on an advisory basis, the compensation of the Named Executive Officers as disclosed in this proxy statement in accordance with SEC rules. This vote is not intended to address any specific item of compensation, but rather the overall compensation of the Named Executive Officers and the philosophy, policies and practices described in this proxy statement.

The Company has designed its executive compensation program to attract, motivate, reward and retain the senior management talent required to achieve our corporate objectives and to increase long-term stockholder value.

The compensation of the Named Executive Officers subject to the vote is disclosed in the Executive Compensation summary below, the compensation tables, and the related narrative disclosure contained in this proxy statement.

Accordingly, the Board of Directors is asking the stockholders to indicate their support for the compensation of the Named Executive Officers as described in this proxy statement by casting a non-binding advisory vote FOR the following resolution:

RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the Executive Compensation discussion below, compensation tables and narrative discussion, is hereby APPROVED.

This vote is advisory, it is not binding on the Board of Directors. Nevertheless, the views expressed by the stockholders, whether through this vote or otherwise, are important to management and the Board of Directors and, accordingly, the Board of Directors and the Compensation Committee intend to consider the results of this vote in making determinations in the future regarding executive compensation arrangements.

Advisory approval of this proposal requires the vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the annual meeting.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS**

**A VOTE IN FAVOR OF PROPOSAL 4**

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

*Principal Stockholders*

The following table sets forth certain information regarding the ownership of the Company's Common Stock as of March 31, 2016, by: (i) each director and nominee for director, (ii) each of our named executive officers, (iii) all executive officers and directors of the Company as a group, and (iv) all those known by the Company to be beneficial owners of more than five percent of its Common Stock. Unless otherwise noted below, the address of each beneficial owner listed on the table is c/o ARCA biopharma, Inc., 11080 CirclePoint Road, Suite 140, Westminster, Colorado, 80020.

On September 3, 2015, the Company completed a 1-for-7 reverse split of its Common Stock. All share amounts throughout this proxy statement have been adjusted retroactively to reflect the effects of this action.

We have determined beneficial ownership in accordance with the rules of the Securities and Exchange Commission, or the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of Common Stock that they beneficially own, subject to applicable community property laws. The table is based upon information supplied by officers, directors and principal stockholders and Schedules 13G or 13D, Form 4s or other ownership reports filed with the SEC. For purposes of this table, certain of our outstanding warrants that may be exercisable for fractional shares have been rounded down to the nearest whole number.

In computing the number of shares of Common Stock beneficially owned by a person and the percentage ownership of that person, we deemed outstanding shares of Common Stock subject to options, restricted stock units, or warrants held by that person that are currently exercisable or exercisable within 60 days of March 31, 2016. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

The percentages below are based on 9,056,647 shares of our Common Stock outstanding as of March 31, 2016.

<b>Beneficial Owner</b>	<b>Shares Beneficially Owned</b>	<b>Percentage of Shares Beneficially Owned</b>
<b>Directors and Named Executive Officers</b>		
Michael R. Bristow, M.D., Ph.D. (1)	157,780	1.73%
Thomas A. Keuer (2)	17,599	*
Christopher D. Ozeroff (3)	20,435	*
Linda Graiss, M.D. (4)	8,805	*
Robert E. Conway (5)	7,354	*
Raymond L. Woosley (6)	7,603	*
Dan J. Mitchell (7)	6,534	*
<b>All current directors and executive officers as a group (7 persons) (8)</b>	226,110	2.46%
<b>5% Stockholders</b>		
Franklin Advisers, Inc. (9)	1,703,586	17.85%
Growth Equity Opportunities Fund IV, LLC (10)	2,044,292	19.90%

RA Capital Healthcare Fund, L.P. and separately managed account for which RA Capital Management, LLC serves as investment adviser (11)	928,195	9.89%
Sabby Healthcare Master Fund, Ltd./Sabby Volatility Warrant Master Fund, Ltd. (12)	457,600	5.05%
Tekla Life Sciences Investors (13)	811,227	8.96%
Venrock Healthcare Capital Partners, L.P./Venrock Healthcare Capital Partners II, L.P./VCHP Co-Investment Holdings, LLC/VHCP Co-Investment Holdings II, LLC (14)	1,865,749	19.89%

\* Represents beneficial ownership of less than 1% of our Common Stock.

- (1) Includes the following owned by (i) Investocor Trust: (a) 19,986 shares and (b) 14,901 shares issuable upon the exercise of warrants, which warrants are immediately exercisable. Dr. Bristow is the sole trustee of Investocor Trust; (ii) NFS as Custodian for Michael Bristow's IRA: (a) 25,459 shares and (b) 17,821 shares issuable upon the exercise of warrants, which warrants are immediately exercisable; (iii) 5,578 shares issuable upon the exercise of warrants, which warrants are immediately exercisable and held directly; (iv) options to purchase 43,283 shares that are exercisable within 60 days of March 31, 2016; and (v) 2,290 restricted stock units that are vesting within 60 days of March 31, 2016.
- (2) Includes options to purchase 9,547 shares that are exercisable within 60 days of March 31, 2016, and 1,207 restricted stock units that are vesting within 60 days of March 31, 2016.
- (3) Includes (i) options to purchase 7,655 shares that are exercisable within 60 days of March 31, 2016; (ii) 1,145 restricted stock units that are vesting within 60 days of March 31, 2016; and (iii) 1,133 shares issuable upon the exercise of warrants, which warrants are immediately exercisable.
- (4) Includes options to purchase 8,805 shares that are exercisable within 60 days of March 31, 2016.
- (5) Includes options to purchase 7,354 shares that are exercisable within 60 days of March 31, 2016.
- (6) Includes options to purchase 7,603 shares that are exercisable within 60 days of March 31, 2016.
- (7) Includes options to purchase 6,534 shares that are exercisable within 60 days of March 31, 2016.
- (8) See Notes (1) through (7) above. Also, includes additional options to purchase 90,781 shares that are exercisable within 60 days of March 31, 2016; 39,433 shares issuable upon the exercise of warrants, which warrants are immediately exercisable; and 4,642 restricted stock units that vest within 60 days of March 31, 2016.
- (9) Based solely on a Schedule 13G filed with the SEC on January 8, 2016. Includes 486,746 shares issuable upon the exercise of warrants, which warrants are immediately exercisable. The warrants include a provision prohibiting any exercise that would result in the holder beneficially owning more than 19.9% of the Company's outstanding Common Stock. The securities reported herein are beneficially owned by one or more open- or closed-end investment companies or other managed accounts that are investment management clients of investment managers that are direct and indirect subsidiaries (each, an Investment Management Subsidiary and, collectively, the Investment Management Subsidiaries) of Franklin Resources Inc. ( FRI ). When an investment management contract (including a sub - advisory agreement) delegates to an Investment Management Subsidiary investment discretion or voting power over the securities held in the investment advisory accounts that are subject to that agreement, FRI treats the Investment Management Subsidiary as having sole investment discretion or voting authority, as the case may be, unless the agreement specifies otherwise. Accordingly, each Investment Management Subsidiary reports that it has sole investment discretion and voting authority over the securities covered by any such investment management agreement, unless otherwise noted. As a result, for purposes of Rule 13d - 3 under the Exchange Act, the Investment Management Subsidiaries listed above may be deemed to be the beneficial owners of the securities reported herein. Charles B. Johnson and Rupert H. Johnson, Jr. (the Principal Shareholders ) each own in excess of 10% of the outstanding common stock of FRI and are the principal stockholders of FRI. FRI and the Principal Shareholders may be deemed to be, for purposes of Rule 13d - 3 under the Exchange Act, the beneficial owners of securities held by persons and entities for whom or for which FRI subsidiaries provide investment management services. FRI, the Principal Shareholders and each of the Investment Management Subsidiaries disclaim any pecuniary interest in any of such securities. In addition, the inclusion of the Principal Shareholders and FRI, as applicable, in this footnote should not be construed as an admission that any of them is, and each of them disclaims that it is, the beneficial owner, as defined in Rule 13d - 3, of any of the securities reported herein. The address for Franklin Advisers, Inc. is One Franklin Parkway, San Mateo, CA 94403-1906.
- (10) Based solely on a Form 3 filed with the SEC on June 17, 2015. Includes 584,083 shares issuable upon the exercise of warrants, which warrants are immediately exercisable. The warrants include a provision prohibiting any exercise that would result in the holder beneficially owning more than 19.9% of the Company's outstanding Common Stock. The shares are directly held by Growth Equity Opportunities Fund IV, LLC ( GEO IV ) and indirectly held by New Enterprise Associates 15, L.P. ( NEA 15 ), the sole member of GEO IV, NEA Partners 15, L.P. ( NEA Partners 15 ), the sole general partner of NEA 15, NEA 15 GP, LLC ( NEA 15 GP ), the sole general

partner of NEA Partners 15, and the individual managers of NEA 15 GP (NEA 15, NEA Partners 15, NEA 15 GP and the individual managers of NEA 15 GP, together, the Indirect Reporting Persons ). The individual managers of NEA 15 GP are Peter J. Barris, Forest Baskett, Anthony A. Florence, Jr., Krishna Kittu Kolluri, Josh Makower, David M. Mott, Jon Sakoda, Scott D. Sandell, Peter W. Sonsini, Ravi Viswanathan and Harry R. Weller. The Indirect Reporting Persons disclaim beneficial ownership within the

meaning of Section 16 of the Exchange Act, or otherwise of such portion of the shares of the Issuer held by GEO IV in which the Indirect Reporting Persons have no pecuniary interest. The address for Growth Equity Opportunities Fund IV, LLC is 1954 Greenspring Drive, Suite 600, Timonium, MD 21093.

- (11) Based solely on a Schedule 13G filed with the SEC on February 16, 2016. Includes 324,490 shares issuable upon the exercise of warrants, which warrants are immediately exercisable. The warrants include a provision prohibiting any exercise that would result in the holder beneficially owning more than 9.9% of the Company's outstanding Common Stock. RA Capital Management, LLC ( Capital ) is the general partner of RA Capital Healthcare Fund, L.P. (the Fund ) and serves as investment adviser for a separately managed account (the Account ). Peter Kolchinsky is the manager of Capital. As the investment adviser to the Fund and the Account, Capital may be deemed a beneficial owner, for purposes of Section 13(d) of the Exchange Act, of any securities of the Company owned by the Fund or the Account. As the manager of Capital, Mr. Kolchinsky may be deemed a beneficial owner, for purposes of Section 13(d) of the Exchange Act, of any securities of the Company beneficially owned by Capital. Capital is a registered investment adviser within the meaning of Rule 13d-1(b)(1)(ii)(E) and Rule 16a-1(a)(v), and Mr. Kolchinsky is a parent or control person of Capital within the meaning of Rule 13d-1(b)(1)(ii)(G) and Rule 16a-1(a)(1)(vii). Capital and Mr. Kolchinsky disclaim beneficial ownership of the securities reported herein. Shares reported herein for Capital represent (a) the above-referenced shares of Common Stock and shares of Common Stock issued upon exercise of the warrant ( Warrant Shares ) as reported for the Fund, for which Capital serves as the sole general partner, and (b) shares of Common Stock and Warrant Shares held in the Account for which Capital serves as investment adviser. Shares reported herein for Mr. Kolchinsky represent the above-referenced shares of Common Stock and exercised Warrant Shares reported for Capital, for which Mr. Kolchinsky serves as the manager. The address for RA Capital Healthcare Fund, L.P. and RA Capital Management, LLC is 20 Park Plaza, Suite 1200, Boston, MA 02116.
- (12) Based solely on a Schedule 13G filed with the SEC on January 6, 2016. In accordance with Rule 13d-3 of the Exchange Act, (i) Sabby Healthcare Master Fund, Ltd. and Sabby Volatility Master Fund, Ltd. beneficially own 346,000 and 111,600 shares of Common Stock, respectively, and (ii) Sabby Management, LLC and Hal Mintz each beneficially own 457,600 shares of Common Stock. Sabby Management, LLC and Hal Mintz do not directly own any shares of Common Stock, but each indirectly owns 457,600 shares of Common Stock. Sabby Management, LLC, a Delaware limited liability company, indirectly owns 457,600 shares of Common Stock because it serves as the investment manager of Sabby Healthcare Volatility Master Fund, Ltd. and Sabby Volatility Warrant Master Fund, Ltd., Cayman Islands companies. Mr. Mintz indirectly owns 457,600 shares of Common Stock in his capacity as manager of Sabby Management, LLC. The warrants include a provision prohibiting any exercise that would result in the holder beneficially owning more than 9.9% of the Company's outstanding Common Stock. The address for Sabby Healthcare Master Fund, Ltd. and Sabby Volatility Warrant Master Fund, Ltd. is c/o Ogier Fiduciary Services (Cayman) Limited, 89 Nexus Way, Camana Bay, Grand Cayman KY1-9007 Cayman Islands.
- (13) Based solely on a Schedule 13G filed with the SEC on February 12, 2016. Tekla Capital Management LLC ( TCM ), as an investment adviser to Tekla Life Sciences Investors ( HQL ), shares beneficial ownership over the shares held by HQL. Each of TCM and Daniel R. Omstead, through his control of TCM, has sole power to dispose of the shares beneficially owned by HQL. Neither TCM nor Daniel R. Omstead has the sole power to vote or direct the vote of the shares beneficially owned by HQL, which power resides in the fund's Board of Trustees. TCM carries the voting of shares under written guidelines established by the funders Board of Trustees. The address for Tekla Life Sciences Investors is 100 Federal Street, 19th Floor, Boston, MA 02110.
- (14) Based solely on a Schedule 13G filed with the SEC on February 16, 2016. Venrock Healthcare Capital Partners, L.P. ( VHCP ); Venrock Healthcare Capital Partners II, L.P. ( VHCP II ); VCHP Co-Investment Holdings, LLC ( Co-Invest ); VHCP Co-Investment Holdings II, LLC ( Co-Invest II ); VCHP Management, LLC; VCHP Management II, LLC; Anders Hove and Bong Koh are members of a group for the purposes of herein. Consists of: (i) 390,912 shares of Common Stock held directly by VHCP and 82,279 shares of Common Stock currently exercisable under a warrant held by VHCP; (ii) 767,660 shares of Common Stock held directly by VHCP II and 161,577 shares of Common Stock currently exercisable under a warrant held by VHCP II; (iii) 71,487 shares of Common Stock held directly by Co-Invest and 15,046 shares of Common Stock currently exercisable under a

warrant held by Co-Invest; and (iv) 311,272 shares of Common Stock held directly by Co-Invest II and 65,516 shares of Common Stock currently exercisable under a warrant held by Co-Invest II. The warrants include a provision prohibiting any exercise that would result in the holder beneficially owning more than 19.9% of the Company's outstanding Common Stock. The address for Venrock Healthcare Capital Partners, L.P., Venrock Healthcare Capital Partners II, L.P., VCHP Co-Investment Holdings, LLC and VHCP Co-Investment Holdings II, LLC is 530 Fifth Avenue, 22nd Floor, New York, NY 10036.



**SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE**

Section 16 of the Securities Exchange Act of 1934, as amended (the Exchange Act ) requires the Company s directors and executive officers, and persons who own more than 10% of its Common Stock, to file with the SEC initial reports of ownership and reports of changes in ownership of Common Stock of the Company. Such persons are required by SEC regulation to furnish us with copies of all Section 16(a) forms that they file.

To the Company s knowledge, based solely upon its review of the copies of such reports furnished to it and written representations that no other reports were required, during the fiscal year ended December 31, 2015, all Section 16(a) filing requirements applicable to its officers, directors and ten percent beneficial owners were complied with.

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**EXECUTIVE OFFICERS**

Set forth below is information regarding each of the executive officers as of March 31, 2016.

<b>Name</b>	<b>Age</b>	<b>Position</b>
Michael R. Bristow, M.D., Ph.D.*	71	President and Chief Executive Officer
Brian L. Selby	54	Vice President, Finance and Chief Accounting Officer
Thomas A. Keuer	57	Chief Operating Officer
Christopher D. Ozeroff	57	Secretary, Senior Vice President and General Counsel

\* Also serves as a director.

*Michael R. Bristow, M.D., Ph.D.* See Mr. Bristow's biography in Proposal Number 1 Election of Directors.

*Brian L. Selby.* Mr. Selby has served as the Company's Vice President, Finance and Chief Accounting Officer since December 2014. Previously, Mr. Selby served as the Company's Controller from 2007 to 2014. Prior to joining the Company, Mr. Selby served as the Controller for Myogen, Inc., a publicly traded pharmaceutical company subsequently acquired by Gilead, from 2004 to 2007. Prior to Myogen, Mr. Selby served as the Controller for several private and publicly traded companies and earlier in his career was an auditor with Deloitte & Touche, LLP. Mr. Selby received his M.S. in Accounting from the University of Colorado and received his B.S., in Business Administration and Finance from Colorado State University, and is a certified public accountant.

*Thomas A. Keuer.* Mr. Keuer has served as the Company's Chief Operating Officer since December 2014. Mr. Keuer served as the Company's Executive Vice President, Pharmaceutical Operations from 2006 to 2014. Prior to joining the Company, Mr. Keuer served as the SVP of Operations for Insmmed, Inc. from 2004 to 2006. Prior to Insmmed, Mr. Keuer served as the VP of Engineering for Baxter Healthcare from 1998 to 2004. Prior to Baxter, Mr. Keuer served as the VP of Operations for Somatogen, Inc. Mr. Keuer received his M.S. in Biochemical Engineering from Rice University and received his B.S. in Chemical Engineering from the University of Texas, Austin.

*Christopher D. Ozeroff.* Mr. Ozeroff is a co-founder of ARCA. Mr. Ozeroff has served as the Company's Senior Vice President, General Counsel and Secretary since 2009, has served as the Company's General Counsel and Secretary since the Company's founding, and has also served as Executive Vice President, Business Development from 2004 to 2009. Prior to joining the Company, Mr. Ozeroff was a partner with the law firm of Hogan & Hartson L.L.P., where he practiced in such areas as finance, acquisitions, public offerings, and licensing. Mr. Ozeroff completed his undergraduate degree at Stanford University and his law degree at the University of Chicago Law School.

## Executive Compensation

The following table shows for the fiscal years ended December 31, 2015 and/or December 31, 2014, compensation awarded to, paid to, or earned by the Company's principal executive officer and its other named executive officers as of December 31, 2015, collectively, the Named Executive Officers:

### SUMMARY COMPENSATION TABLE FOR FISCAL 2015 AND 2014

Name and Principal Position	Year	Salary (\$)(1)	Option Awards (\$)(2)	Stock Awards (\$)(2)	Non-Equity Incentive Plan Awards (\$)(3)	All Other Compensation (\$)	Total (\$)
Michael R. Bristow	2015	296,707	12,799	32,225	100,400	15,136	457,267
President and Chief Executive Officer							
	2014	279,564	76,586	110,565	21,100	13,585	501,400
Thomas A. Keuer	2015	294,237	6,745	16,982	60,000	16,357	394,321
Chief Operating Officer (4)							
Christopher D. Ozeroff	2015	289,995	6,400	16,110	58,900	12,835	384,240
Secretary, Senior Vice President and General Counsel							
	2014	273,234	15,615	66,690	12,350	12,279	380,168

- (1) The amounts reported under "Salary" in the above table represent the actual amounts paid during the calendar year. Because the Company's actual pay dates do not always coincide with the first and last days of the year, these amounts may differ from the base salary amounts authorized by the Company's Board of Directors and described in the narrative that follows.
- (2) The amounts reported under "Option Awards" and "Stock Awards" in the above table reflect the grant date fair value of these awards as determined in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, Compensation - Stock Compensation, excluding the effects of estimated forfeitures. The value of stock option and restricted stock unit awards was estimated using the Black-Scholes option-pricing model. The valuation assumptions used in the valuation of option grants and restricted stock units may be found in Note 8 to the Company's financial statements included in our annual report on Form 10-K for the year ended December 31, 2015, and filed with the SEC on March 17, 2016.
- (3) Represents cash bonuses earned under the 2015 and 2014 Bonus Plans. Cash bonuses earned and reported above in 2014 were paid in 2015, and cash bonuses earned and reported above in 2015 were paid in 2016. See "Executive Compensation" for descriptions of the 2015 and 2014 Bonus Plans.

(4) Mr. Keuer began to serve as an executive officer of the Company on January 1, 2015.

35.

## *Narrative Disclosure to Summary Compensation Table*

### *Employment Agreements or Arrangements*

*Michael R. Bristow, M.D., Ph.D.* Dr. Bristow serves as the Company's President and Chief Executive Officer under an Employment and Retention Agreement that was amended and restated as of June 4, 2008, and further amended pursuant to a Waiver and Amendment Agreement executed as of March 30, 2012. Pursuant to such employment agreement, Dr. Bristow is permitted to continue his academic work for the University of Colorado Health Sciences Center and for the Cardiovascular Institute, so long as it does not interfere with his duties as President and Chief Executive Officer of ARCA.

On February 12, 2015, the Board of Directors approved a cash bonus of \$21,100 for Dr. Bristow. The cash bonus was earned under the 2014 Bonus Plan. See *Executive Compensation* for descriptions of the 2014 Bonus Plan. The Board of Directors also approved a 2015 base salary of \$286,759 for Dr. Bristow.

On February 11, 2016, the Board of Directors approved a cash bonus of \$100,400 for Dr. Bristow. The cash bonus was earned under the 2015 Bonus Plan. See *Executive Compensation* for descriptions of the 2015 Bonus Plan. The Board of Directors also approved a 2016 base salary of \$295,359 for Dr. Bristow.

If the Company terminates Dr. Bristow's employment without cause, or if Dr. Bristow terminates his employment with good reason (as these terms are defined in his employment agreement), the Company has agreed to pay Dr. Bristow a severance payment equivalent to (i) (a) 12 months of his base salary, if such termination occurs on the same day as or within 13 months after a change of control of the Company, or (b) six months of his base salary if such termination does not occur on the same day as or within 13 months after a change of control of the Company, (ii) a pro rata portion of any bonus compensation under any employee bonus plan that has been approved by the Board of Directors payable to him for the fiscal year in which his employment terminated to be paid at the same time that such incentive bonus would have been paid had the termination not occurred, and (iii) reimbursement to cover out-of-pocket costs to continue group health insurance benefits under COBRA for 6 months, whether he elects or is eligible to receive COBRA (provided, that even if he does not elect or is not eligible to receive COBRA, he will receive the equivalent of such out-of-pocket expenses paid by him not to exceed the costs that the benefits would equal under COBRA if he were so eligible). In addition, ARCA may elect in its sole discretion, to pay additional severance equal to up to 6 months of base salary, which additional payment would extend the covenants and obligations under Dr. Bristow's Employee Intellectual Property, Confidentiality and Non-Compete Agreement for such additional period. The severance payment is conditioned on the execution by Dr. Bristow of a legal release in a form acceptable to the Company. A termination for cause includes Dr. Bristow's willful misconduct, gross negligence, theft, fraud, or other illegal or dishonest conduct, any of which are considered to be materially harmful to the Company; refusal, unwillingness, failure, or inability to perform his material job duties or habitual absenteeism; or violation of fiduciary duty, violation of any duty of loyalty, or material breach of any material term of his employment agreement or his Employee Intellectual Property, Confidentiality and Non-Compete Agreement, or any other agreement, with the Company. Good reason includes a relocation by us of Dr. Bristow's normal work location greater than 30 miles; a decrease in current base salary by more than 15%, with certain exceptions; and the Company's unilateral decision to significantly and detrimentally reduce Dr. Bristow's job responsibilities.

*Thomas A. Keuer.* Mr. Keuer serves as the Company's Chief Operating Officer under an Amended and Restated Employment Agreement that is effective as of January 1, 2015.

Under his employment agreement, Mr. Keuer is entitled to receive an annual base salary of \$280,000, subject to annual increases if approved by the Company's Board of Directors or Compensation Committee and is eligible to receive an annual bonus as determined by the Board of Directors or Compensation Committee in its sole discretion.

On February 12, 2015, the Board of Directors approved a cash bonus of \$10,750 for Mr. Keuer. The cash bonus was earned under the 2014 Bonus Plan. See [Executive Compensation](#) for descriptions of the 2014 Bonus Plan. The Board of Directors also approved a 2015 base salary of \$285,600 for Mr. Keuer.

On February 11, 2016, the Board of Directors approved a cash bonus of \$60,000 for Mr. Keuer. The cash bonus was earned under the 2015 Bonus Plan. See [Executive Compensation](#) for descriptions of the 2015 Bonus Plan. The Board of Directors also approved a 2016 base salary of \$294,170 for Mr. Keuer.

If the Company terminates Mr. Keuer's employment without cause, or if Mr. Keuer terminates his employment with good reason (as these terms are defined in his employment agreement), the Company has agreed to pay Mr. Keuer a severance payment equivalent to (i) (a) 12 months of his base salary, if such termination occurs on the same day as or within 13 months after a change of control of the Company, or (b) six months of his base salary if such termination does not occur on the same day as or within 13 months after a change of control of the Company, (ii) a pro rata portion of any bonus compensation under any employee bonus plan that has been approved by the Board of Directors payable to him for the fiscal year in which his employment terminated to be paid at the same time that such incentive bonus would have been paid had the termination not occurred, and (iii) reimbursement to cover out-of-pocket costs to continue group health insurance benefits under COBRA for (x) 12 months, if such termination occurs on the same day as or within 13 months after a change of control of the Company, or (y) six months if such termination does not occur on the same day as or within 13 months after a change of control of the Company, whether he elects or is eligible to receive COBRA (provided, in either event, that even if he does not elect or is not eligible to receive COBRA, he will receive the equivalent of such out-of-pocket expenses paid by him not to exceed the costs that the benefits would equal under COBRA if he were so eligible). In addition, ARCA may elect in its sole discretion, to pay additional severance equal to up to 12 months of base salary, which additional payment would extend the covenants and obligations under Mr. Keuer's Employee Intellectual Property, Confidentiality and Non-Compete Agreement for such additional period. The severance payment is conditioned on the execution by Mr. Keuer of a legal release in a form acceptable to the Company. A termination for cause includes Mr. Keuer's willful misconduct, gross negligence, theft, fraud, or other illegal or dishonest conduct, any of which are considered to be materially harmful to the Company; refusal, unwillingness, failure, or inability to perform his material job duties or habitual absenteeism; or violation of fiduciary duty, violation of any duty of loyalty, or material breach of any material term of his employment agreement or his Employee Intellectual Property, Confidentiality and Non-Compete Agreement, or any other agreement, with the Company. Good reason includes a relocation by us of Mr. Keuer's normal work location greater than 30 miles; a decrease in current base salary by more than 15%, with certain exceptions; and the Company's unilateral decision to significantly and detrimentally reduce Mr. Keuer's job responsibilities.

*Christopher D. Ozeroff.* Mr. Ozeroff serves as the Company's Senior Vice President and General Counsel under an Employment and Retention Agreement that was amended and restated as of June 12, 2008, and further amended pursuant to a Waiver and Amendment Agreement executed as of March 30, 2012.

Under his employment agreement, Mr. Ozeroff is entitled to receive an annual base salary of \$259,000, subject to annual increases if approved by the Company's Board of Directors or Compensation Committee and is eligible to receive an annual bonus as determined by the Board of Directors or Compensation Committee in its sole discretion.

On February 12, 2015, the Board of Directors approved a cash bonus of \$12,350 for Mr. Ozeroff. The cash bonus was earned under the 2014 Bonus Plan. See [Executive Compensation](#) for descriptions of the 2014 Bonus Plan. The Board of Directors also approved a 2015 base salary of \$280,273 for Mr. Ozeroff.

On February 11, 2016, the Board of Directors approved a cash bonus of \$58,900 for Mr. Ozeroff. The cash bonus was earned under the 2015 Bonus Plan. See [Executive Compensation](#) for descriptions of the 2015 Bonus Plan. The Board of Directors also approved a 2016 base salary of \$288,683 for Mr. Ozeroff.

If the Company terminates Mr. Ozeroff's employment without cause, or if Mr. Ozeroff terminates his employment with good reason (as these terms are defined in his employment agreement), the Company has agreed to pay Mr. Ozeroff a severance payment equivalent to (i) (a) 12 months of his base salary, if such termination occurs on the same day as or within 13 months after a change of control of the Company, or (b) six months of his base salary if such

termination does not occur on the same day as or within 13 months after a change of control of the Company, (ii) a pro rata portion of any bonus compensation under any employee bonus plan that has been approved by the Board of Directors payable to him for the fiscal year in which his employment terminated to be paid at the same time that such incentive bonus would have been paid had the termination not occurred, and (iii) reimbursement to cover out-of-pocket costs to continue group health insurance benefits under COBRA for 6 months, whether he

37.



elects or is eligible to receive COBRA (provided, that even if he does not elect or is not eligible to receive COBRA, he will receive the equivalent of such out-of-pocket expenses paid by him not to exceed the costs that the benefits would equal under COBRA if he were so eligible). In addition, ARCA may elect in its sole discretion, to pay additional severance equal to up to 6 months of base salary, which additional payment would extend the covenants and obligations under Mr. Ozeroff's Employee Intellectual Property, Confidentiality and Non-Compete Agreement for such additional period. The severance payment is conditioned on the execution by Mr. Ozeroff of a legal release in a form acceptable to the Company. A termination for cause includes Mr. Ozeroff's willful misconduct, gross negligence, theft, fraud, or other illegal or dishonest conduct, any of which are considered to be materially harmful to the Company; refusal, unwillingness, failure, or inability to perform his material job duties or habitual absenteeism; or violation of fiduciary duty, violation of any duty of loyalty, or material breach of any material term of his employment agreement or his Employee Intellectual Property, Confidentiality and Non-Compete Agreement, or any other agreement, with the Company. Good reason includes a relocation by us of Mr. Ozeroff's normal work location greater than 30 miles; a decrease in current base salary by more than 15%, with certain exceptions; and the Company's unilateral decision to significantly and detrimentally reduce Mr. Ozeroff's job responsibilities.

#### *Non-Equity Incentive Plan Compensation*

In February 2007, the Compensation Committee and the Board of Directors of ARCA established a bonus structure for its entire executive team. The philosophy employed was to create incentives for the executive officers to achieve key corporate goals. The Compensation Committee retained discretion to change the bonus structure and the bonus payment amounts as it considered appropriate.

#### *2014 Cash Bonus Plan*

On February 12, 2015, the Board of Directors approved cash bonuses for certain employees. The cash bonuses were paid in 2015 for performance in 2014, including for attainment of the Company's 2014 Goals under its 2014 Cash Bonus Plan (the 2014 Goals), as determined by the Compensation Committee. The 2014 bonuses were based on the Board of Directors' determination with respect to the Company's achievement of the 2014 Goals.

The 2014 Goals were based on (1) obtaining additional funding, (2) enrollment rates in the GENETIC-AF trial and (3) corporate transaction objectives.

#### *2015 Cash Bonus Plan*

On February 11, 2016, the Board of Directors approved cash bonuses for certain employees. The cash bonuses were paid in 2016 for performance in 2015, including for attainment of the Company's 2015 Goals under its 2015 Cash Bonus Plan (the 2015 Goals), as determined by the Compensation Committee. The 2015 bonuses were based on the Board of Directors' determination with respect to the Company's achievement of the 2015 Goals.

The 2015 Goals were based on (1) obtaining additional funding (2) enrollment in the GENETIC-AF trial, and (3) corporate transaction objectives.

#### *2016 Cash Bonus Plan*

The Board of Directors has set corporate goals for 2016 (the 2016 Goals), which may be updated at the Board of Directors' discretion during 2016. Attainment of the 2016 Goals is a prerequisite to the payment of any awards to employees under the Company's 2016 Cash Bonus Plan, including executive officers.

The amount payable to each employee is set as a target percentage of each employee's annual salary, or the target bonus percentage (TBP), but employees, including executive officers, may receive more or less than 100% of their

TBP, based upon corporate goal achievement, individual performance and the discretion of the Board of Directors.

To receive a cash bonus (if any), each individual employee must be actively employed by the Company, and in good standing, on December 31, 2016. Employees hired after January 1, 2016, will have their cash bonus (if any) prorated based on the percentage of time the employee worked at ARCA in 2016. The 2016 Goals are based on (1) enrollment of GENETIC-AF (2) development pipeline objectives, and (3) corporate transaction objectives.

*Other Elements of Executive Compensation Program*

The remaining elements of the Company's executive compensation program, like its broader employee compensation programs, are intended to make the Company's overall compensation program competitive with those of its peer companies, keeping in mind the constraints imposed by the Company's reliance on capital markets as a primary source of cash. The remaining elements of the Company's executive compensation program, (401(k) Plan, Medical, Dental, and Vision Plans, Life and Disability Insurance) are available to all Company employees.

**EQUITY COMPENSATION PLAN INFORMATION**

The following table sets forth information as of December 31, 2015, for all of our equity compensation plans:

	<b>No. of Securities to be Issued Upon Exercise of Outstanding Options or Upon Vesting of Restricted Stock Units (a)</b>	<b>Weighted Average Exercise Price of Outstanding Options (\$) (b)</b>	<b>No. of Securities Remaining Available for Future Issuance Under Equity Compensation Plans Excluding Securities Reflected in Column(a) (c)</b>
Equity compensation plans approved by security holders	223,637	18.30	64,419
Equity compensation plans not approved by security holders			
<b>Total</b>	<b>223,637</b>		<b>64,419</b>

A description of the equity incentive plans we maintain is set forth in Note 8 to the Company's financial statements included in our annual report on Form 10-K for the year ended December 31, 2015, and filed with the SEC on March 17, 2016.

*Compensation Risks*

ARCA believes its approach to goal setting, setting of targets with payouts at multiple levels of performance, and evaluation of performance results assist in mitigating excessive risk-taking that could harm the value or reward poor judgment by its executives. ARCA believes several features of the Company's programs reflect sound risk management practices. ARCA believes it has allocated compensation among base salary and short and long-term compensation target opportunities in such a way as to not encourage excessive risk-taking. The multi-year vesting of equity awards properly accounts for the time horizon of risk. Furthermore, the Compensation Committee assesses and monitors whether any of ARCA's compensation policies and programs has the potential to encourage excessive risk-taking on an annual basis.



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**OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END**

The following table shows for the fiscal year ended December 31, 2015, certain information regarding outstanding equity awards at fiscal year end for the Named Executive Officers.

A description of the equity incentive plans we maintain is set forth in Note 8 to the Company's financial statements included in our annual report on Form 10-K for the year ended December 31, 2015, and filed with the SEC on March 17, 2016.

Name	Option Awards			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date
Michael R. Bristow, President and Chief Executive Officer	596	-	233.94	1/23/2019
	380	-	124.74	2/18/2020
	714	-	94.08	5/20/2021
	21,107	7,035 (1)	9.66	9/16/2023
	9,195	3,065 (1)	9.66	9/16/2023
	3,372	3,985 (2)	13.65	2/26/2024
Thomas A. Keuer, Chief Operating Officer	1,027	2,673 (3)	4.69	2/11/2025
	636	-	37.80	11/2/2016
	270	-	78.12	2/12/2018
	262	-	216.30	11/14/2018
	584	-	121.80	6/25/2019
	190	-	124.74	2/18/2020
	476	-	94.08	5/20/2021
	3,581	1,194 (1)	9.66	9/16/2023
	1,031	397 (4)	10.85	10/14/2023
	687	813 (2)	13.65	2/26/2024
Christopher Ozeroff, Secretary, Senior Vice President and General Counsel	541	1,409 (3)	4.69	2/11/2025
	152	-	124.74	2/18/2020
	476	-	94.08	5/20/2021
	4,568	1,523 (1)	9.66	9/16/2023
	687	813 (2)	13.65	2/26/2024
	514	1,336 (3)	4.69	2/11/2025

(1) Options vest in monthly installments through September 17, 2016.

(2) Options vest in monthly installments through February 27, 2018.

(3) Options vest in 36 monthly installments measured from February 12, 2015.

(4) Options vest in monthly installments through October 15, 2016.

Name	Stock Awards	
	Number of Shares or Units of Stock That Have Not Vested (#) Unvested	Market Value of Shares or Units of Stock That Have Not Vested (\$)
Michael R. Bristow, President and Chief Executive Officer	5,952 (1)	27,677
	6,075 (2)	28,249
	6,871 (3)	31,950
Thomas A. Keuer, Chief Operating Officer	2,143 (1)	9,965
	1,429 (4)	6,645
	3,664 (2)	17,038
	3,621 (3)	16,838
Christopher Ozeroff, Secretary, Senior Vice President and General Counsel	3,571 (1)	16,605
	3,664 (2)	17,038
	3,435 (3)	15,973

(1) Restricted Stock Units vest on September 17, 2016.

(2) Restricted Stock Units vest in equal annual installments through February 27, 2018.

(3) Restricted Stock Units vest in three equal annual installments beginning on April 2, 2016.

(4) Restricted Stock Units vest on October 15, 2016.

#### *Equity Incentive Compensation*

On September 17, 2013, our stockholders approved the ARCA biopharma, Inc. 2013 Equity Incentive Plan (the 2013 Plan) at the Company's 2013 annual meeting of stockholders. The 2013 Plan is the successor to the Amended and Restated ARCA biopharma, Inc. 2004 Equity Incentive Plan (the 2004 Plan).

Certain of the option grants and restricted stock units reported in the table above were granted to the Named Executive Officers in 2014. Each such option grant and restricted stock unit was priced at \$13.65 per share, the closing price of the Company's Common Stock on Nasdaq on the date of grant, after giving effect to the Company's reverse stock split in September 2015. The option grants vest in equal monthly installments through February 27, 2018, and have an acceleration provision which provides that in the event of a Change of Control of the Company then the vesting of such options shall be accelerated as described below. The options are subject to the terms and conditions of the 2013 Plan and the Company standard forms of Stock Option Agreement and Option Grant Notice for the Plan. The restricted stock units vest in equal annual installments through February 27, 2018, and have an acceleration provision which provides that in the event of a Change of Control of the Company then the vesting of such restricted stock units shall be accelerated as described below.

Upon a Change in Control of the Company, the vesting of these option grants and restricted stock units accelerates as follows:

a) Fifty percent (50%) of the unvested options become fully vested and exercisable upon the closing date of such Change in Control and any remaining unvested option shares continue to vest according to the original vesting schedule, and

b) Upon the one-year anniversary of the closing of the Change of Control, or the Named Executive Officer's involuntary termination, whichever occurs first, the remaining unvested option shares shall become fully vested and exercisable.

Certain of the option grants and restricted stock units reported in the table above were granted to the Company's Named Executive Officers in 2015. Each of such option grants and restricted stock units were priced at \$4.69 per share, the closing price of the Company's Common Stock on Nasdaq on the date of grant, after giving effect to the Company's reverse stock split in September 2015. The option grants vest in equal monthly installments through February 12, 2018, and have an acceleration provision which provides that in the event of a Change of Control of the Company then the vesting of such options shall be accelerated as described below. The options are subject to the terms and conditions of the Company's 2013 Plan, as amended, and the Company standard forms of Stock Option Agreement and Option Grant Notice for the Plan. The restricted stock units vest in equal annual

installments through April 2, 2018, and have an acceleration provision which provides that in the event of a Change of Control of the Company then the vesting of such restricted stock units shall be accelerated as described below.

Upon a Change in Control of the Company, the vesting of these option grants and restricted stock units accelerates as follows:

- a) Fifty percent (50%) of the unvested options become fully vested and exercisable upon the closing date of such Change in Control and any remaining unvested option shares continue to vest according to the original vesting schedule, and
- b) Upon the one-year anniversary of the closing of the Change of Control, or the executive officer's involuntary termination, whichever occurs first, the remaining unvested option shares shall become fully vested and exercisable.

### Option Exercises And Stock Vested

The following table sets forth certain information regarding option exercises and restricted stock units that vested during the year ended December 31, 2015, with respect to the Named Executive Officers:

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)(1)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)(2)
Michael R. Bristow			7,977	48,015
Thomas A. Keuer			4,791	27,062
Christopher Ozeroff			4,792	28,839

- (1) The value realized on exercise of the options equals the difference between the market price of the underlying stock at exercise and the exercise or base price of the options, multiplied by the number of shares acquired on exercise.
- (2) The value realized on vesting of restricted stock units equals the market value of the Company's Common Stock on the vesting date, multiplied by the number of shares that vested.



**DIRECTOR COMPENSATION**

The following table shows for the fiscal year ended December 31, 2015, certain information with respect to the compensation of all non-employee directors of the Company:

**DIRECTOR COMPENSATION FOR FISCAL 2015 (1)**

	<b>Fees Earned or Paid in Cash (\$)</b>	<b>Option Awards (\$)(2)</b>	<b>Nonqualified Deferred Compensation Earnings (\$)</b>	<b>All Other Compensation (\$)</b>	<b>Total (\$)</b>
Linda Grais, M.D. (3)	45,000	3,645			48,645
Raymond L. Woosley, M.D. (4)	50,000	3,645			53,645
Robert E. Conway (5)	65,000	3,645			68,645
Dan J. Mitchell (6)	40,000	3,645			43,645

- (1) Dr. Bristow, our President and Chief Executive Officer, was also a director during the year ended December 31, 2015, but did not receive any additional compensation for his service as a director. Dr. Bristow's compensation as an executive officer is set forth above under Executive Compensation Summary Compensation Table.
- (2) The amounts reported under Option Awards in the above table reflect the aggregate grant date fair value of these awards as determined in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, Compensation - Stock Compensation, excluding the effects of estimated forfeitures. The value of stock option awards was estimated using the Black-Scholes option-pricing model. The valuation assumptions used in the valuation of option awards may be found in Note 8 to the Company's financial statements included in our annual report on Form 10-K for the year ended December 31, 2015, and filed with the SEC on March 17, 2016.
- (3) The aggregate number of shares issuable upon exercise of option awards outstanding at December 31, 2015, for Dr. Grais was 6,138, of which 6,075 shares were fully vested.
- (4) The aggregate number of shares issuable upon exercise of option awards outstanding at December 31, 2015, for Dr. Woosley was 5,063, of which 4,618 shares were fully vested.
- (5) The aggregate number of shares issuable upon exercise of option awards outstanding at December 31, 2015, for Mr. Conway was 4,941, of which 4,370 shares were fully vested.
- (6) Mr. Mitchell joined the Company's Board of Directors on February 11, 2014. The aggregate number of shares issuable upon exercise of option awards outstanding at December 31, 2015, for Mr. Mitchell was 4,438, of which 3,549 shares were fully vested.

In 2016, the Company revised its compensation plan for non-employee directors to provide that non-employee directors will be compensated for their service on the Board of Directors, as follows:

Each non-employee director will receive an annual retainer fee of \$35,000;

As additional compensation for their services, each non-employee director will receive (i), upon joining the Board of Directors, an initial option grant to purchase 10,000 shares of the Company's Common Stock under the 2013 Plan and (ii), on an annual basis, an annual option grant to purchase

8,000 shares of the Company's Common Stock under the 2013 Plan;

The Chairman of the Board of Directors will receive an additional annual retainer fee of \$25,000;

The Audit Committee chair will receive an additional annual retainer fee of \$15,000;

The chairs of the Compensation Committee and the Nominating and Corporate Governance Committee will each receive an additional annual retainer fee of \$10,000;

Each non-chair member of the Audit Committee will receive an additional annual retainer fee of \$7,500; and

Each non-chair member of the Compensation Committee and the Nominating and Corporate Governance Committees will receive an additional annual retainer fee of \$5,000.

At the February 11, 2014, meeting of the Board of Directors, the Board of Directors awarded a stock option grant to purchase 2,285 shares of the Company's Common Stock under the 2013 Plan to Dan J. Mitchell. This option vests over three years, and an additional grant of options to purchase 1,011 shares of Common Stock under the 2013 Plan vesting over one year. In addition, the Board of Directors granted to each of Dr. Woosley, Dr. Grais and Mr. Conway stock options to purchase 1,142 shares of Common Stock. These options vest over one year. The

purchase price for the options issued on February 11, 2014, was \$12.60 per share, which was equal to the closing price of the Company's Common Stock on Nasdaq on the date of the grant, after giving effect to the Company's reverse stock split in September 2015. If the non-employee director's service terminates in connection with or at any time following a change in control, then any unexpired options that remain unvested shall become fully vested.

At the February 12, 2015, meeting of the Board of Directors, the Board of Directors awarded annual stock option grants to the Directors. Mr. Mitchell, Dr. Grais, Dr. Woosley and Mr. Conway each were granted options to purchase 1,142 shares of Common Stock under the 2013 Plan vesting over one year. The purchase price for the options issued on February 12, 2015, was \$4.69 per share, which was equal to the closing price of the Company's Common Stock on Nasdaq on the date of the grant, after giving effect to the Company's reverse stock split in September 2015. If the non-employee director's service terminates in connection with or at any time following a change in control, then any unexpired options that remain unvested shall become fully vested.

At the February 11, 2016, meeting of the Board of Directors, the Board of Directors awarded annual stock option grants to the Directors. Mr. Mitchell, Dr. Grais, Dr. Woosley and Mr. Conway each were granted options to purchase 8,000 shares of Common Stock under the 2013 Plan vesting over one year. The purchase price for the options issued on February 11, 2016, was \$3.44 per share, which was equal to the closing price of the Company's Common Stock on Nasdaq on the date of the grant. If the non-employee director's service terminates in connection with or at any time following a change in control, then any unexpired options that remain unvested shall become fully vested.

#### **CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

##### **Transactions With the Company's President and Chief Executive Officer**

The Company has entered into unrestricted research grants with Dr. Bristow's, the Company's President and Chief Executive Officer, academic research laboratory at the University of Colorado. Funding of any unrestricted research grants is contingent upon the Company's financial condition, and can be deferred or terminated at the Company's discretion. Total expense under these arrangements for the years ended December 31, 2015 and 2014, was approximately \$375,000 and \$350,000, respectively.

##### **Certain Transactions With or Involving Related Persons**

The following is a summary of transactions since January 1, 2014, to which we have been a party in which the amount involved exceeded the lesser of \$120,000 or one percent of the average of our total assets at fiscal years ended 2015, and in which any of our executive officers, directors or holders of more than 5% of our capital stock, or any member of the immediate family of any of the foregoing persons, had or will have a direct or indirect material interest, other than compensation arrangements disclosed above under the heading "Executive Compensation".

*June 2015 Private Placement*

In June 2015, we sold units made up of shares of our Common Stock and warrants to purchase shares of our Common Stock in a private placement transaction with accredited investors, including certain holders of more than 5% of our capital stock and their affiliates. We issued an aggregate of 6,003,082 shares of Common Stock together with warrants to purchase 2,401,233 shares of Common Stock. The net proceeds to us, after deducting placement agent fees and other offering expenses, were approximately \$34.2 million. Each unit consisted of one share of Common Stock and a warrant to purchase 0.4 shares of Common Stock and was sold at a purchase price of \$6.1635 per unit. The warrants were exercisable upon issuance, expire seven years from the date of issuance, and have an exercise price of \$6.1012 per share. Pursuant to the terms of the Securities Purchase Agreement entered into as part of this transaction, we filed a registration statement for the resale of the shares underlying the units sold in this private placement. That registration statement was declared effective by the SEC on July 20, 2015. The following executive officers, directors or holders of more than 5% of our capital stock, or any member of the immediate family of any of the foregoing persons and their affiliated entities, participated in this transaction:

<b>Name of Purchaser</b>	<b>Dollars Invested</b>	<b>Shares Purchased</b>	<b>Shares Underlying Warrants</b>
Venrock Healthcare Capital Partners II, L.P.	\$ 4,731,475.05	767,660	307,064
VHCP Co-Investment Holdings II, LLC	\$ 1,918,524.97	311,272	124,508
Venrock Healthcare Capital Partners, L.P.	\$ 2,409,389.63	390,912	156,365
VHCP Co-Investment Holdings, LLC	\$ 440,610.12	71,487	28,594
Growth Equity Opportunities Fund IV, LLC	\$ 8,999,999.93	1,460,209	584,083
Franklin Strategic Series - Franklin Biotechnology Discovery Fund	\$ 2,946,634.63	478,078	191,231
Franklin Templeton Investment Funds - Franklin Biotechnology Discovery Fund	\$ 4,553,365.75	738,763	295,505
RA Capital Healthcare Fund, L.P.	\$ 4,115,000.02	667,640	267,056
Tekla Life Sciences Investors	\$ 5,000,000.26	811,227	324,491

**Policies and Procedures for Related Party Transactions**

Our Audit Committee reviews and approves all related party transactions. This review covers any material transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, and a related party had or will have a direct or indirect material interest, including, purchases of goods or services by or from the related party or entities in which the related party has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related party.

45.

### HOUSEHOLDING OF PROXY MATERIALS

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

This year, a number of brokers with account holders who are ARCA biopharma, Inc. stockholders will be householding the Company's proxy materials. A single Notice of Internet Availability of Proxy Materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate Notice of Internet Availability of Proxy Materials, please notify your broker or ARCA biopharma, Inc. Direct your written request to Secretary, ARCA biopharma, Inc., 11080 CirclePoint Road, Suite 140, Westminster, Colorado, 80020 or contact Investor Relations at 720-940-2100. The Company undertakes to promptly deliver a separate copy of the Notice of Internet Availability of Proxy Materials promptly upon receiving your written request. Stockholders who currently receive multiple copies of the Notices of Internet Availability of Proxy Materials at their addresses and would like to request householding of their communications should contact their brokers.

### OTHER MATTERS

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

By Order of the Board of Directors

Christopher Ozeroff  
Secretary, Senior Vice President and General  
Counsel

April 27, 2016

**A copy of the Company's Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 2015, is available without charge upon written request to: Corporate Secretary, ARCA biopharma, Inc., 11080 CirclePoint Road, Suite 140, Westminster, Colorado 80020.**

Appendix A

**ARCA BIOPHARMA, INC.**

**AMENDED AND RESTATED 2013 EQUITY INCENTIVE PLAN**

**ORIGINALLY ADOPTED BY THE BOARD OF DIRECTORS: JULY 26, 2013**

**ORIGINALLY APPROVED BY THE STOCKHOLDERS: SEPTEMBER 17, 2013**

**AMENDED BY THE BOARD OF DIRECTORS: APRIL 20, 2016**

**APPROVED BY THE STOCKHOLDERS: JUNE \_\_, 2016**

**1. GENERAL.**

**(a) Eligible Award Recipients.** Employees, Directors and Consultants are eligible to receive Awards.

**(b) Available Awards.** The Plan provides for the grant of the following Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Stock Appreciation Rights (iv) Restricted Stock Awards, (v) Restricted Stock Unit Awards, (vi) Performance Stock Awards, (vii) Performance Cash Awards, and (viii) Other Stock Awards.

**(c) Purpose.** The Plan, through the granting of Awards, is intended to help the Company secure and retain the services of eligible award recipients, provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate, and provide a means by which the eligible recipients may benefit from increases in value of the Common Stock.

**2. ADMINISTRATION.**

**(a) Administration by Board.** The Board will administer the Plan. The Board may delegate administration of the Plan to a Committee or Committees, as provided in Section 2(c).

**(b) Powers of Board.** The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

**(i)** To determine: (A) who will be granted Awards; (B) when and how each Award will be granted; (C) what type of Award will be granted; (D) the provisions of each Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Award; (E) the number of shares of Common Stock subject to, or the cash value of, an Award; and (F) the Fair Market Value applicable to a Stock Award.

**(ii)** To construe and interpret the Plan and Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan and Awards. The Board, in the exercise of these powers, may correct any defect, omission or inconsistency in the Plan or in any Award Agreement or in the written terms of a Performance Cash Award, in a manner and to the extent it will deem necessary or expedient to make the Plan or Award fully effective.

1.



- (iii) To settle all controversies regarding the Plan and Awards granted under it.
- (iv) To accelerate, in whole or in part, the time at which an Award may be exercised or vest (or at which cash or shares of Common Stock may be issued).
- (v) To suspend or terminate the Plan at any time. Except as otherwise provided in the Plan or an Award Agreement, suspension or termination of the Plan will not materially impair a Participant's rights under his or her then-outstanding Award without his or her written consent except as provided in subsection (viii) below.
- (vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or to bring the Plan or Awards granted under the Plan compliant with the requirements for Incentive Stock Options or exempt from or compliant with the requirements for nonqualified deferred compensation under Section 409A of the Code, subject to the limitations, if any, of applicable law. If required by applicable law or listing requirements, and except as provided in Section 9(a) relating to Capitalization Adjustments, the Company will seek stockholder approval of any amendment of the Plan that (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan, (D) materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (E) materially extends the term of the Plan, or (F) materially expands the types of Awards available for issuance under the Plan. Except as otherwise provided in the Plan or an Award Agreement, no amendment of the Plan will materially impair a Participant's rights under an outstanding Award without the Participant's written consent.
- (vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of (A) Section 162(m) of the Code regarding the exclusion of performance-based compensation from the limit on corporate deductibility of compensation paid to Covered Employees, (B) Section 422 of the Code regarding incentive stock options or (C) Rule 16b-3.
- (viii) To approve forms of Award Agreements for use under the Plan and to amend the terms of any one or more Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; provided however, that a Participant's rights under any Award will not be impaired by any such amendment unless (A) the Company requests the consent of the affected Participant, and (B) such Participant consents in writing. Notwithstanding the foregoing, (1) a Participant's rights will not be deemed to have been impaired by any such amendment if the Board, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights, and (2) subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Awards without the affected Participant's consent (A) to maintain the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code; (B) to change the terms of an Incentive Stock Option, if such change results in impairment of the Award solely because it impairs the qualified status of the Award as an Incentive Stock

Option under Section 422 of the Code; (C) to clarify the manner of exemption from, or to bring the Award into compliance with, Section 409A of the Code; or (D) to comply with other applicable laws or listing requirements.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States (provided that Board approval will not be necessary for immaterial modifications to the Plan or any Award Agreement that are required for compliance with the laws of the relevant foreign jurisdiction).

(xi) To effect, with the consent of any adversely affected Participant, (A) the reduction of the exercise, purchase or strike price of any outstanding Stock Award; (B) the cancellation of any outstanding Stock Award and the grant in substitution thereof of a new (1) Option or SAR, (2) Restricted Stock Award, (3) Restricted Stock Unit Award, (4) Other Stock Award, (5) cash award and/or (6) award of other valuable consideration determined by the Board, in its sole discretion, with any such substituted award (x) covering the same or a different number of shares of Common Stock as the cancelled Stock Award and (y) granted under the Plan or another equity or compensatory plan of the Company; or (C) any other action that is treated as a repricing under generally accepted accounting principles.

(c) **Delegation to Committee.**

(i) **General.** The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee, as applicable). Any delegation of administrative powers will be reflected in resolutions, not inconsistent with the provisions of the Plan, adopted from time to time by the Board or Committee (as applicable). The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revert in the Board some or all of the powers previously delegated.

(ii) **Section 162(m) and Rule 16b-3 Compliance.** The Committee may consist solely of two or more Outside Directors, in accordance with Section 162(m) of the Code, or solely of two or more Non-Employee Directors, in accordance with Rule 16b-3.

(d) **Delegation to an Officer.** The Board may delegate to one (1) or more Officers the authority to do one or both of the following (i) designate Employees who are not Officers to be recipients of Options and SARs (and, to the extent permitted by applicable law, other Stock Awards) and, to the extent permitted by applicable law, the terms of such Awards, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to

such Employees; *provided, however*, that the Board resolutions regarding such delegation will specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Any such Stock Awards will be granted on the form of Stock Award Agreement most recently approved for use by the Committee or the Board, unless otherwise provided in the resolutions approving the delegation authority. The Board may not delegate authority to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) to determine the Fair Market Value pursuant to Section 13(y)(iii) below.

(e) **Effect of Board's Decision.** All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

**3. SHARES SUBJECT TO THE PLAN.**

(a) **Share Reserve.** Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards from and after the Effective Date will not exceed 1,259,675 shares, which is equal to the sum of (i) 47,654 shares remaining available for grant under the Plan prior to the Effective Date of its amendment and restatement; (ii) an additional 1,000,000 newly reserved shares; and (iii) any shares subject to Stock Awards granted under the Plan prior to the Effective Date of its amendment and restatement, which become available for grant under the Plan from time to time pursuant to Section 3(b) hereof due to their reversion to the Plan, up to a maximum of 212,021 shares (such aggregate number of shares described in (i), (ii) and (iii) above, the **Share Reserve** ). For clarity, the Share Reserve in this Section 3 is a limitation on the number of shares of Common Stock that may be issued pursuant to the Plan. Accordingly, this Section 3 does not limit the granting of Stock Awards except as provided in Section 7(a). Shares may be issued in connection with a merger or acquisition as permitted by NASDAQ Listing Rule 5635(c) or, if applicable, NYSE Listed Company Manual Section 303A.08, AMEX Company Guide Section 711 or other applicable rule, and such issuance will not reduce the number of shares available for issuance under the Plan.

(b) **Reversion of Shares to the Share Reserve.** If a Stock Award or any portion thereof (i) expires or otherwise terminates without all of the shares covered by such Stock Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement will not reduce (or otherwise offset) the number of shares of Common Stock that may be available for issuance under the Plan. If any shares of Common Stock issued pursuant to a Stock Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares that are forfeited or repurchased will revert to and again become available for issuance under the Plan. Any shares reacquired by the Company in satisfaction of tax withholding obligations on a Stock Award or as consideration for the exercise or purchase price of a Stock Award will again become available for issuance under the Plan.

(c) **Incentive Stock Option Limit.** Subject to the provisions of Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options is 1,259,675.

4.

**(d) Section 162(m) Limitations.** Subject to the provisions of Section 9(a) relating to Capitalization Adjustments, at such time as the Company may be subject to the applicable provisions of Section 162(m) of the Code, the following limitations shall apply.

**(i)** A maximum of three hundred thousand (300,000) shares of Common Stock subject to Options, SARs and Other Stock Awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the Fair Market Value on the date the Stock Award is granted may be granted to any one Participant during any one calendar year, provided, however, that the Company may make an additional one-time grant to any newly-hired Employee of an Option, SAR or Other Stock Award for the purchase of up to an additional one hundred thousand (100,000) shares of Common Stock. An Option which is canceled (or a freestanding SAR as to which the exercise price is reduced to reflect a reduction in the Fair Market Value of the Common Stock) in the same fiscal year of the Company in which it was granted shall continue to be counted against such limit for such fiscal year. Notwithstanding the foregoing, if any additional Options, SARs or Other Stock Awards whose value is determined by reference to an increase over an exercise or strike price of at least one hundred percent (100%) of the Fair Market Value on the date the Stock Award are granted to any Participant during any calendar year, compensation attributable to the exercise of such additional Stock Awards will not satisfy the requirements to be considered qualified performance-based compensation under Section 162(m) of the Code unless such additional Stock Award is approved by the Company's stockholders.

**(ii)** A maximum of fifty thousand (50,000) shares of Common Stock may be granted as a Restricted Stock Award or Restricted Stock Unit Award to any one Participant during any one calendar year, subject to vesting conditions based on the attainment during the Performance Period of the Performance Goals, provided, however, that the Company may make an additional one-time grant to any newly-hired Employee of a Restricted Stock Award or Restricted Stock Unit Award of up to an additional fifteen thousand (15,000) shares of Common Stock.

**(iii)** A maximum of one hundred thousand (100,000) shares of Common Stock subject to Performance Stock Awards may be granted to any one Participant during any one calendar year (whether the grant, vesting or exercise is contingent upon the attainment during the Performance Period of the Performance Goals).

**(iv)** A maximum of \$2,000,000 may be granted as a Performance Cash Award to any one Participant during any one calendar year.

**(e) Limitation on Grants to Non-Employee Directors.** The maximum number of shares of Common Stock subject to Stock Awards granted under the Plan or otherwise during any one fiscal year to any Non-Employee Director, taken together with any cash fees paid by the Company to such Non-Employee Director during such fiscal year for service on the Board, will not exceed \$300,000 in total value (calculating the value of any such Stock Awards based on the grant date fair value of such Stock Awards for financial reporting purposes). The Board may make exceptions to the applicable limit in this Section 3(e) for individual Non-Employee Directors in extraordinary circumstances (for example, to compensate such individual for interim service in the capacity of an officer of the Company), as the Board may determine in its

discretion, provided that the Non-Employee Director receiving such additional compensation may not participate in the decision to award such compensation or in other compensation decisions involving Non-Employee Directors.

**(f) Source of Shares.** The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

**4. ELIGIBILITY.**

**(a) Eligibility for Specific Stock Awards.** Incentive Stock Options may be granted only to employees of the Company or a parent corporation or subsidiary corporation thereof (as such terms are defined in Sections 424(e) and 424(f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided, however*, that Stock Awards may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any parent of the Company, as such term is defined in Rule 405 of the Securities Act, unless (i) the stock underlying such Stock Awards is treated as service recipient stock under Section 409A of the Code (for example, because the Stock Awards are granted pursuant to a corporate transaction such as a spin off transaction), (ii) the Company, in consultation with its legal counsel, has determined that such Stock Awards are otherwise exempt from Section 409A of the Code, or (iii) the Company, in consultation with its legal counsel, has determined that such Stock Awards comply with the distribution requirements of Section 409A of the Code.

**(b) Ten Percent Stockholders.** A Ten Percent Stockholder will not be granted an Incentive Stock Option unless the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five years from the date of grant.

**5. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.**

Each Option or SAR will be in such form and will contain such terms and conditions as the Board deems appropriate. All Options will be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates will be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, or if an Option is designated as an Incentive Stock Option but some portion or all of the Option fails to qualify as an Incentive Stock Option under the applicable rules, then the Option (or portion thereof) will be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided, however*, that each Award Agreement will conform to (through incorporation of provisions hereof by reference in the applicable Award Agreement or otherwise) the substance of each of the following provisions:

**(a) Term.** Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR will be exercisable after the expiration of ten years from the date of its grant or such shorter period specified in the Award Agreement.

6.

**(b) Exercise Price.** Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, the exercise or strike price of each Option or SAR will be not less than 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Award is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise or strike price lower than 100% of the Fair Market Value of the Common Stock subject to the Award if such Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Section 409A and, if applicable, Section 424(a) of the Code. Each SAR will be denominated in shares of Common Stock equivalents.

**(c) Purchase Price for Options.** The purchase price of Common Stock acquired pursuant to the exercise of an Option may be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board will have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to use a particular method of payment. The permitted methods of payment are as follows:

**(i)** by cash, check, bank draft or money order payable to the Company;

**(ii)** pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

**(iii)** by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

**(iv)** if an Option is a Nonstatutory Stock Option, by a net exercise arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; provided, however, that the Company will accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued. Shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are reduced to pay the exercise price pursuant to the net exercise, (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations; or

**(v)** in any other form of legal consideration that may be acceptable to the Board and specified in the applicable Award Agreement.

**(d) Exercise and Payment of a SAR.** To exercise any outstanding SAR, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such SAR. The appreciation distribution payable on the exercise of a SAR will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the SAR) of a

number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such SAR, and with respect to which the Participant is exercising the SAR on such date, over (B) the aggregate strike price of the number of Common Stock equivalents with respect to which the Participant is exercising the SAR on such date. The appreciation distribution may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Award Agreement evidencing such SAR.

**(e) Transferability of Options and SARs.** The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board will determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options and SARs will apply:

**(i) Restrictions on Transfer.** An Option or SAR will not be transferable except by will or by the laws of descent and distribution (or pursuant to subsections (ii) and (iii) below), and will be exercisable during the lifetime of the Participant only by the Participant. The Board may permit transfer of the Option or SAR in a manner that is not prohibited by applicable tax and securities laws. Except as explicitly provided herein, neither an Option nor a SAR may be transferred for consideration.

**(ii) Domestic Relations Orders.** Subject to the approval of the Board or a duly authorized Officer, an Option or SAR may be transferred pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulations Section 1.421-1(b)(2). If an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

**(iii) Beneficiary Designation.** Subject to the approval of the Board or a duly authorized Officer, a Participant may, by delivering written notice to the Company, in a form approved by the Company (or the designated broker), designate a third party who, on the death of the Participant, will thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, the executor or administrator of the Participant's estate will be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. However, the Company may prohibit designation of a beneficiary at any time, including due to any conclusion by the Company that such designation would be inconsistent with the provisions of applicable laws.

**(f) Vesting Generally.** The total number of shares of Common Stock subject to an Option or SAR may vest and become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of Performance Goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary. The provisions of this Section 5(f) are subject to any Option or SAR provisions governing the minimum number of shares of Common Stock as to which an Option or SAR may be exercised.

**(g) Termination of Continuous Service.** Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates (other than for Cause and other than upon the Participant's death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Award as of the date of termination of Continuous Service) within the period of time ending on the earlier of (i) the date three (3) months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the applicable Award Agreement), and (ii) the expiration of the term of the Option or SAR as set forth in the Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR (as applicable) within the applicable time frame, the Option or SAR will terminate.

**(h) Extension of Termination Date.** Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause and other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR will terminate on the earlier of (i) the expiration of a total period of time (that need not be consecutive) equal to the applicable post termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement. In addition, unless otherwise provided in a Participant's Award Agreement, if the sale of any Common Stock received on exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR will terminate on the earlier of (i) the expiration of a period of months (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option or SAR would not be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement.

**(i) Disability of Participant.** Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date twelve (12) months following such termination of Continuous Service (or such longer or shorter period specified in the Award Agreement), and (ii) the expiration of the term of the Option or SAR as set forth in the Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the applicable time frame, the Option or SAR (as applicable) will terminate.

**(j) Death of Participant.** Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Award Agreement for exercisability after the



termination of the Participant's Continuous Service for a reason other than death, then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date eighteen (18) months following the date of death (or such longer or shorter period specified in the Award Agreement), and (ii) the expiration of the term of such Option or SAR as set forth in the Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the applicable time frame, the Option or SAR (as applicable) will terminate.

**(k) Termination for Cause.** Except as explicitly provided otherwise in a Participant's Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a Participant's Continuous Service is terminated for Cause, the Option or SAR will terminate immediately upon such Participant's termination of Continuous Service, and the Participant will be prohibited from exercising his or her Option or SAR from and after the date of such termination of Continuous Service.

**(l) Non-Exempt Employees.** If an Option or SAR is granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the Option or SAR will not be first exercisable for any shares of Common Stock until at least six (6) months following the date of grant of the Option or SAR (although the Award may vest prior to such date). Consistent with the provisions of the Worker Economic Opportunity Act, (i) if such non-exempt Employee dies or suffers a Disability, (ii) upon a Corporate Transaction in which such Option or SAR is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Participant's retirement (as such term may be defined in the Participant's Award Agreement in another agreement between the Participant and the Company, or, if no such definition, in accordance with the Company's then current employment policies and guidelines), the vested portion of any Options and SARs may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay. To the extent permitted and/or required for compliance with the Worker Economic Opportunity Act to ensure that any income derived by a non-exempt employee in connection with the exercise, vesting or issuance of any shares under any other Stock Award will be exempt from the employee's regular rate of pay, the provisions of this Section 5(l) will apply to all Stock Awards and are hereby incorporated by reference into such Stock Award Agreements.

**6. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS AND SARs.**

**(a) Restricted Stock Awards.** Each Restricted Stock Award Agreement will be in such form and will contain such terms and conditions as the Board will deem appropriate. To the extent consistent with the Company's bylaws, at the Board's election, shares of Common Stock underlying a Restricted Stock Award may be (x) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (y) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award

Agreements need not be identical. Each Restricted Stock Award Agreement will conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

- (i) **Consideration.** A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration (including future services) that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.
  - (ii) **Vesting.** Shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.
  - (iii) **Termination of Participant's Continuous Service.** If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right any or all of the shares of Common Stock held by the Participant as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.
  - (iv) **Transferability.** Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement will be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board will determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.
  - (v) **Dividends.** A Restricted Stock Award Agreement may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.
- (b) **Restricted Stock Unit Awards.** Each Restricted Stock Unit Award Agreement will be in such form and will contain such terms and conditions as the Board will deem appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical. Each Restricted Stock Unit Award Agreement will conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:
- (i) **Consideration.** At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.
  - (ii) **Vesting.** At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

- (iii) **Payment.** A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.
- (iv) **Additional Restrictions.** At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.
- (v) **Dividend Equivalents.** Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.
- (vi) **Termination of Participant's Continuous Service.** Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.
- (c) **Performance Awards.**
- (i) **Performance Stock Awards.** A Performance Stock Award is a Stock Award (covering a number of shares not in excess of that set forth in Section 3(d) above) that is payable (including that may be granted, vest or be exercised) contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Stock Award may, but need not, require the completion of a specified period of Continuous Service. The length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained will be conclusively determined by the Committee (or, if not required for compliance with Section 162(m) of the Code, the Board), in its sole discretion. In addition, to the extent permitted by applicable law and the applicable Award Agreement, the Board or Committee may determine that cash may be used in payment of Performance Stock Awards.
- (ii) **Performance Cash Awards.** A Performance Cash Award is a cash award (for a dollar value not in excess of that set forth in Section 3(d) above) that is payable contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Cash Award may also require the completion of a specified period of Continuous Service. At the time of grant of a Performance Cash Award, the length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained will be conclusively determined by the Committee (or, if not required for compliance with Section 162(m) of the Code, the Board), in its sole discretion. The Board or Committee may specify the form of payment of

Performance Cash Awards, which may be cash or other property, or may provide for a Participant to have the option for his or her Performance Cash Award, or such portion thereof as the Board may specify, to be paid in whole or in part in cash or other property.

**(iii) Discretion.** The Board and Committee retain the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for a Performance Period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the Stock Award Agreement or the written terms of a Performance Cash Award.

**(iv) Section 162(m) Compliance.** Unless otherwise permitted in compliance with the requirements of Section 162(m) of the Code with respect to an Award intended to qualify as performance-based compensation thereunder, the Committee will establish the Performance Goals applicable to, and the formula for calculating the amount payable under, the Award no later than the earlier of (a) the date ninety (90) days after the commencement of the applicable Performance Period, and (b) the date on which 25% of the Performance Period has elapsed, and in any event at a time when the achievement of the applicable Performance Goals remains substantially uncertain. Prior to the payment of any compensation under an Award intended to qualify as performance-based compensation under Section 162(m) of the Code, the Committee will certify the extent to which any Performance Goals and any other material terms under such Award have been satisfied (other than in cases where such relate solely to the increase in the value of the Common Stock). Notwithstanding satisfaction of any completion of any Performance Goals, the number of shares of Common Stock, Options, cash or other benefits granted, issued, retainable and/or vested under an Award on account of satisfaction of such Performance Goals may be reduced by the Committee on the basis of such further considerations as the Committee, in its sole discretion, will determine.

**(d) Other Stock Awards.** Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., options or stock rights with an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards provided for under Section 5 and the preceding provisions of this Section 6. Subject to the provisions of the Plan, the Board will have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

**7. COVENANTS OF THE COMPANY.**

**(a) Availability of Shares.** The Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy then-outstanding Awards.

**(b) Securities Law Compliance.** The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of

the Stock Awards; *provided, however*, that this undertaking will not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant will not be eligible for the grant of an Award or the subsequent issuance of cash or Common Stock pursuant to the Award if such grant or issuance would be in violation of any applicable securities law.

(c) **No Obligation to Notify or Minimize Taxes.** The Company will have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company will have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of an Award or a possible period in which the Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of an Award to the holder of such Award.

**8. MISCELLANEOUS.**

(a) **Use of Proceeds from Sales of Common Stock.** Proceeds from the sale of shares of Common Stock pursuant to Awards will constitute general funds of the Company.

(b) **Corporate Action Constituting Grant of Awards.** Corporate action constituting a grant by the Company of an Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (e.g., Board consents, resolutions or minutes) documenting the corporate action constituting the grant contain terms (e.g., exercise price, vesting schedule or number of shares) that are inconsistent with those in the Award Agreement or related grant documents as a result of a clerical error in the papering of the Award Agreement or related grant documents, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Award Agreement or related grant documents.

(c) **Stockholder Rights.** No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to an Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares under, the Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to such Award has been entered into the books and records of the Company.

(d) **No Employment or Other Service Rights.** Nothing in the Plan, any Award Agreement or any other instrument executed thereunder or in connection with any Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Award was granted or will affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of

such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) **Change in Time Commitment.** In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Award to the Participant, the Board has the right in its sole discretion to (x) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Award that is scheduled to vest or become payable after the date of such change in time commitment, and (y) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Award that is so reduced.

(f) **Incentive Stock Option Limitations.** To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds \$100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with the rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(g) **Investment Assurances.** The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, will be inoperative if (A) the issuance of the shares upon the exercise or acquisition of Common Stock under the Award has been registered under a then currently effective registration statement under the Securities Act, or (B) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

**(h) Withholding Obligations.** Unless prohibited by the terms of an Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to an Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Award; *provided, however*, that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such lesser amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from an Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; or (v) by such other method as may be set forth in the Award Agreement.

**(i) Electronic Delivery.** Any reference herein to a written agreement or document will include any agreement or document delivered electronically, filed publicly at [www.sec.gov](http://www.sec.gov) (or any successor website thereto) or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access).

**(j) Deferrals.** To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company. The Board is authorized to make deferrals of Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

**(k) Compliance with Section 409A of the Code.** Unless otherwise expressly provided for in an Award Agreement, the Plan and Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the Awards granted hereunder exempt from Section 409A of the Code, and, to the extent not so exempt, in compliance with Section 409A of the Code. If the Board determines that any Award granted hereunder is not exempt from and is therefore subject to Section 409A of the Code, the Award Agreement evidencing such Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code, and to the extent an Award Agreement is silent on terms necessary for compliance, such terms are hereby incorporated by reference into the Award Agreement. Notwithstanding anything to the contrary in this Plan (and unless the Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding an Award that constitutes deferred compensation under Section 409A of the Code is a specified employee for purposes of Section 409A of the Code, no distribution or payment of any amount that is due because of a separation from service (as defined in Section 409A of the Code without regard to alternative definitions thereunder) will be issued or paid before the date that is six months following the date of such Participant's separation from service or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A of

the Code, and any amounts so deferred will be paid in a lump sum on the day after such six month period elapses, with the balance paid thereafter on the original schedule.

**(l) Clawback/Recovery.** All Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in an Award Agreement as the Board determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of an event constituting Cause. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for good reason or constructive termination (or similar term) under any agreement with the Company.

**9. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.**

**(a) Capitalization Adjustments.** In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3, (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), (iii) the class(es) and maximum number of securities that may be awarded to any person pursuant to Sections 3(d), and (iv) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board will make such adjustments, and its determination will be final, binding and conclusive.

**(b) Dissolution.** Except as otherwise provided in the Stock Award Agreement, in the event of a Dissolution of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) will terminate immediately prior to the completion of such Dissolution, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service, *provided, however*, that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the Dissolution is completed but contingent on its completion.

**(c) Corporate Transaction.** The following provisions will apply to Stock Awards in the event of a Corporate Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. In the event of a Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board will take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Corporate Transaction:



- (i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);
- (ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);
- (iii) accelerate the vesting, in whole or in part, of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Corporate Transaction as the Board will determine (or, if the Board will not determine such a date, to the date that is five days prior to the effective date of the Corporate Transaction), with, if so determined by the Board, such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction;
- (iv) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;
- (v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for such cash consideration, if any, as the Board, in its sole discretion, may consider appropriate; and
- (vi) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of the Stock Award immediately prior to the effective time of the Corporate Transaction, over (B) any exercise price payable by such holder in connection with such exercise.

The Board need not take the same action or actions with respect to all Stock Awards or portions thereof or with respect to all Participants. The Board may take different actions with respect to the vested and unvested portions of a Stock Award.

**(d) Change in Control.** A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, or action by the Board, no such acceleration will occur.

**10. PLAN TERM; EARLIER TERMINATION OR SUSPENSION OF THE PLAN.**

The Board may suspend or terminate the Plan at any time. No Incentive Stock Options may be granted after the tenth anniversary of the earlier of (i) the date the Plan is adopted by the Board (the *Adoption Date*), or (ii) the date the Plan is approved by the stockholders of the Company. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

**11. EFFECTIVE DATE OF PLAN.**

This Plan will become effective on the Effective Date.

**12. CHOICE OF LAW.**

The law of the State of Colorado will govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

**13. DEFINITIONS.** As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) **Affiliate** means, at the time of determination, any parent or subsidiary of the Company as such terms are defined in Rule 405 of the Securities Act. The Board will have the authority to determine the time or times at which parent or subsidiary status is determined within the foregoing definition.

(b) **Award** means a Stock Award or a Performance Cash Award.

(c) **Award Agreement** means a written agreement between the Company and a Participant evidencing the terms and conditions of an Award.

(d) **Board** means the Board of Directors of the Company.

(e) **Capital Stock** means each and every class of common stock of the Company, regardless of the number of votes per share.

(f) **Capitalization Adjustment** means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Adoption Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(g) **Cause** will have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) such Participant's willful misconduct, gross negligence, theft, fraud, or other illegal or dishonest conduct, any of which are considered to be materially harmful to the Company; (ii) such Participant's refusal, unwillingness, failure, or inability to perform material job duties or habitual absenteeism; or (iii) such Participant's violation of fiduciary duty, violation of any duty of loyalty, or material breach of any material term of any contract between the Participant and the Company. The determination that a termination of the Participant's Continuous Service is either for Cause or without Cause will be made by the Company, in its sole discretion. Any

determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant will have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

**(h)** *Change in Control* means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

**(i)** any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control will not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, or (C) solely because the level of Ownership held by any Exchange Act Person (the *Subject Person*) exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control will be deemed to occur;

**(ii)** there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

**(iii)** there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or

(iv) individuals who, on the date the Plan is adopted by the Board, are members of the Board (the ***Incumbent Board*** ) cease for any reason to constitute at least a majority of the members of the Board; *provided, however*, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member will, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing definition or any other provision of the Plan, the term Change in Control will not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company and the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant will supersede the foregoing definition with respect to Awards subject to such agreement; *provided, however*, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition will apply.

(i) ***Code*** means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(j) ***Committee*** means a committee of one or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(k) ***Common Stock*** means the common stock of the Company, having one vote per share.

(l) ***Company*** means ARCA biopharma, Inc., a Delaware corporation.

(m) ***Consultant*** means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a Consultant for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company's securities to such person.

(n) ***Continuous Service*** means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, will not terminate a Participant's Continuous Service ; *provided, however*, that if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, in its sole discretion, such Participant's Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous Service will

be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence will be treated as Continuous Service for purposes of vesting in an Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(o) **Corporate Transaction** means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board, in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least ninety percent (90%) of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(p) **Covered Employee** will have the meaning provided in Section 162(m)(3) of the Code.

(q) **Director** means a member of the Board.

(r) **Disability** means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than twelve (12) months, as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(s) **Dissolution** means when the Company, after having executed a certificate of dissolution with the State of Delaware, has completely wound up its affairs. Conversion of the Company into a Limited Liability Company will not be considered a Dissolution for purposes of the Plan.

(t) **Effective Date** means the effective date of this amended and restated Plan document, which is the date of the annual meeting of stockholders of the Company held in calendar year 2016, provided the Plan is approved by the Company's stockholders at such meeting.

- (u) **Employee** means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an Employee for purposes of the Plan.
- (v) **Entity** means a corporation, partnership, limited liability company or other entity.
- (w) **Exchange Act** means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.
- (x) **Exchange Act Person** means any natural person, Entity or group (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that Exchange Act Person will not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or group (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities.
- (y) **Fair Market Value** means, as of any date, the value of the Common Stock determined as follows:
- (i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock will be, unless otherwise determined by the Board, **the closing sales price** for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) **on the date of determination**, as reported in a source the Board deems reliable.
- (ii) Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing selling price on the last preceding date for which such quotation exists.
- (iii) In the absence of such markets for the Common Stock, the Fair Market Value will be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.
- (z) **Incentive Stock Option** means an option granted pursuant to Section 5 of the Plan that is intended to be, and qualifies as, an incentive stock option within the meaning of Section 422 of the Code.
- (aa) **Non-Employee Director** means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not

be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act ( **Regulation S-K** ), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a non-employee director for purposes of Rule 16b-3.

**(bb)** *Nonstatutory Stock Option* means any option granted pursuant to Section 5 of the Plan that does not qualify as an Incentive Stock Option.

**(cc)** *Officer* means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

**(dd)** *Option* means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

**(ee)** *Option Agreement* means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement will be subject to the terms and conditions of the Plan.

**(ff)** *Optionholder* means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

**(gg)** *Other Stock Award* means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 6(d).

**(hh)** *Other Stock Award Agreement* means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement will be subject to the terms and conditions of the Plan.

**(ii)** *Outside Director* means a Director who either (i) is not a current employee of the Company or an affiliated corporation (within the meaning of Treasury Regulations promulgated under Section 162(m) of the Code), is not a former employee of the Company or an affiliated corporation who receives compensation for prior services (other than benefits under a tax-qualified retirement plan) during the taxable year, has not been an officer of the Company or an affiliated corporation, and does not receive remuneration from the Company or an affiliated corporation, either directly or indirectly, in any capacity other than as a Director, or (ii) is otherwise considered an outside director for purposes of Section 162(m) of the Code.

**(jj)** *Own, Owned, Owner, Ownership* means a person or Entity will be deemed to Own, to have Owned, Owner of, or to have acquired Ownership of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

**(kk)** *Participant* means a person to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

**(ll)** **Performance Cash Award** means an award of cash granted pursuant to the terms and conditions of Section 6(c)(ii).

**(mm)** **Performance Criteria** means the one or more criteria that the Board or Committee will select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that will be used to establish such Performance Goals may be based on any one of, or combination of, the following as determined by the Board or Committee: (i) revenue; (ii) gross margin; (iii) operating margin; (iv) operating income; (v) pre-tax profit; (vi) earnings before interest, taxes and depreciation; (vii) net income; (viii) cash flow; (ix) expenses; (x) the market price of the Stock; (xi) earnings per share; (xii) return on stockholder equity; (xiii) return on capital; (xiv) return on net assets; (xv) economic value added; (xvi) number of customers; (xvii) market share; (xviii) return on investment; (xix) profit after tax; (xx) clinical trial milestones; (xxi) regulatory product approval milestones; (xxii) strategic partnership milestones; (xxiii) customer satisfaction; and, to the extent that an Award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by the Board or Committee.

**(nn)** **Performance Goals** means, for a Performance Period, the one or more goals established by the Board or Committee for the Performance Period based upon the Performance Criteria. Performance Goals may be based on a Company-wide basis, with respect to one or more business units, divisions, Affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Board or Committee (i) in the Award Agreement at the time the Award is granted or (ii) in such other document setting forth the Performance Goals at the time the Performance Goals are established, the Board or Committee will appropriately make adjustments in the method of calculating the attainment of Performance Goals for a Performance Period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any unusual or infrequently occurring items as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a Performance Period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of common stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under the Company's bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles and (12) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item. In addition, the Board or Committee retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for such Performance Period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of



achievement as specified in the Stock Award Agreement or the written terms of a Performance Cash Award.

**(oo)** *Performance Period* means the period of time selected by the Board or Committee over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant's right to and the payment of a Stock Award or a Performance Cash Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Board.

**(pp)** *Performance Stock Award* means a Stock Award granted under the terms and conditions of Section 6(c)(i).

**(qq)** *Plan* means this ARCA biopharma, Inc. 2013 Equity Incentive Plan.

**(rr)** *Restricted Stock Award* means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

**(ss)** *Restricted Stock Award Agreement* means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement will be subject to the terms and conditions of the Plan.

**(tt)** *Restricted Stock Unit Award* means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

**(uu)** *Restricted Stock Unit Award Agreement* means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement will be subject to the terms and conditions of the Plan.

**(vv)** *Rule 16b-3* means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

**(ww)** *Securities Act* means the Securities Act of 1933, as amended.

**(xx)** *Stock Appreciation Right* or *SAR* means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 5.

**(yy)** *Stock Appreciation Right Agreement* means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement will be subject to the terms and conditions of the Plan.

**(zz)** *Stock Award* means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right, a Performance Stock Award or any Other Stock Award.

**(aaa) *Stock Award Agreement*** means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement will be subject to the terms and conditions of the Plan.

**(bbb) *Subsidiary*** means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation will have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

**(ccc) *Ten Percent Stockholder*** means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than ten percent of the total combined voting power of all classes of stock of the Company or any Affiliate.

x

Using a **black ink** pen, mark your votes with an **X** as shown in this example. Please do not write outside the designated areas.

**Electronic Voting Instructions**

**Available 24 hours a day, 7 days a week!**

Instead of mailing your proxy, you may choose one of the voting methods outlined below to vote your proxy.

VALIDATION DETAILS ARE LOCATED BELOW IN THE TITLE BAR.

**Proxies submitted by the Internet or telephone must be received by 1:00 a.m., Mountain Time, on June 9, 2016.**

**Vote by Internet**

Go to [www.investorvote.com/ABIO](http://www.investorvote.com/ABIO)

Or scan the QR code with your smartphone

Follow the steps outlined on the secure website

**Vote by telephone**

Call toll free 1-800-652-VOTE (8683) within the USA, US territories & Canada on a touch tone telephone

Follow the instructions provided by the recorded message

q **IF YOU HAVE NOT VOTED VIA THE INTERNET OR TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE.** q

**A Proposals** The Board of Directors recommends a vote **FOR** the nominee listed and **FOR** Proposals 2, 3 and 4.

1. Election of one director to hold office until the 2019 Annual Meeting of Stockholders.

	<b>For</b>	<b>Withhold</b>	+
01 - Dr. Linda Grais	..	..	

	<b>For</b>	<b>Against</b>	<b>Abstain</b>
2. To ratify the selection of KPMG LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2016.	..	..	..

4. To approve, on an advisory basis, the compensation of the Company's named executive officers as disclosed in the proxy statement.	..	..	..
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	<b>For</b>	<b>Against</b>	<b>Abstain</b>
3. To approve the Amended and Restated ARCA 2013 Equity Incentive Plan.	..	..	..

In their discretion, the proxies are also authorized to vote upon such other matters as may properly come before the Annual Meeting.

**B Non-Voting Items**

**Change of Address** Please print your new address below. **Comments** Please print your comments below.

**Meeting Attendance**

Mark the box to the right .. if you plan to attend the

Annual Meeting.

**C Authorized Signatures** This section must be completed for your vote to be counted. **Date and Sign Below**

Please date and sign exactly as the name appears on this card. Joint owners should each sign. Please give full title when signing as executor, administrator, trustee, attorney, guardian for a minor, etc. Signatures for corporations and partnerships should be in the corporate or firm name by a duly authorized person.

Date (mm/dd/yyyy) Please print date below. / / Signature 1 Please keep signature within the box. Signature 2 Please keep signature within the box.

02BT5D

**Important notice regarding the Internet availability of  
proxy materials for the Annual Meeting of Stockholders.**

**The ARCA biopharma, Inc. Annual Report**

**and ARCA biopharma, Inc. Notice of Annual Meeting are available at: [www.edocumentview.com/ABIO](http://www.edocumentview.com/ABIO)**

**q IF YOU HAVE NOT VOTED VIA THE INTERNET OR TELEPHONE, FOLD ALONG THE  
PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. q**

**Proxy ARCA BIOPHARMA, INC.**

**PROXY SOLICITED BY THE BOARD OF DIRECTORS OF ARCA BIOPHARMA, INC.**

**FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JUNE 9, 2016**

The undersigned hereby acknowledges receipt of the Notice of Annual Meeting of Stockholders and Proxy Statement of ARCA biopharma, Inc. (the Company) in connection with the Company's Annual Meeting of Stockholders to be held at the Boulder Marriott Hotel, 2660 Canyon Boulevard, Boulder, CO 80302, at 9:00 a.m., Mountain Time, on Thursday, June 9, 2016, and does hereby appoint Michael R. Bristow, M.D., Ph.D., Thomas A. Keuer and Christopher D. Ozeroff, and each of them (with full power to act alone), as proxies of the undersigned with all the powers the undersigned would possess if personally present and with full power of substitution in each of them, to appear and vote all shares of Common Stock of the Company which the undersigned would be entitled to vote if personally present at the 2016 Annual Meeting of Stockholders, and at any postponement or adjournment thereof.

The shares represented hereby will be voted as directed herein. **IN EACH CASE, IF NO DIRECTION IS INDICATED, SUCH SHARES WILL BE VOTED FOR THE NOMINEE LISTED AND FOR PROPOSALS 2, 3 AND 4. AS TO ANY OTHER MATTER THAT MAY PROPERLY COME BEFORE THE MEETING OR ANY POSTPONEMENT OR ADJOURNMENT THEREOF, SAID PROXY HOLDERS WILL VOTE IN ACCORDANCE WITH THEIR BEST JUDGMENT. THIS PROXY MAY BE REVOKED IN WRITING AT ANY TIME PRIOR TO THE VOTING THEREOF.**

**PLEASE VOTE, DATE AND SIGN ON THE REVERSE SIDE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE.**

**Please be sure to sign and date this Proxy.**