ARCA biopharma, Inc. Form DEF 14A August 01, 2013

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))
- x 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)

- x No fee required.
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 - 1. Title of each class of securities to which transaction applies:

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| 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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| Che | paid previously with preliminary materials. ck box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing. |
| 6. | Amount Previously Paid: |
| 7. | Form, Schedule or Registration Statement No.: |
| 8. | Filing Party: |

9. Date Filed:

ARCA BIOPHARMA, INC.

8001 Arista Place, Suite 430

Broomfield, Colorado 80021

August 1, 2013

Dear Stockholders of ARCA biopharma, Inc.:

You are cordially invited to attend the Annual Meeting of Stockholders of ARCA biopharma, Inc., a Delaware corporation (the Company or ARCA). The meeting will be held on Tuesday, September 17, 2013 at 9:00 a.m. local time at the Aloft Broomfield Denver Hotel, 8300 Arista Place, Broomfield, CO 80021.

The matters scheduled to be considered at the meeting are (1) to elect the Board's nominees, Dr. Linda Grais and Dr. John L. Zabriskie, to the Board of Directors to hold office until the 2016 Annual Meeting of Stockholders, (2) to ratify the selection by the Audit Committee of the Board of Directors of KPMG LLP (KPMG) as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2013; (3) to approve the 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 indicate, on an advisory basis, the preferred frequency of stockholder advisory votes on the compensation of the Company s named executive officers; and (6) 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, 2012, filed with the SEC on March 21, 2013, as amended by our Form 10-K/A filed with the SEC on April 18, 2013) over the Internet, we intend to send a Notice of Internet Availability of Proxy Materials (Notice) on or about August 8, 2013 to our stockholders of record as of July 30, 2013. We will also provide access to our proxy materials over the Internet by August 8, 2013. 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.

8001 Arista Place, Suite 430

Broomfield, Colorado 80021

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD ON SEPTEMBER 17, 2013

Notice is hereby given that the Annual Meeting of Stockholders of (the Annual Meeting) ARCA biopharma, Inc., a Delaware corporation (the Company or ARCA) will be held on Tuesday, September 17, 2013 at 9:00 a.m. local time at the Aloft Broomfield Denver Hotel, 8300 Arista Place, Broomfield, CO 80021 for the following purposes:

- To elect the Board s nominees, Dr. Linda Grais and Dr. John L. Zabriskie, to the Board of Directors to hold office until the 2016 Annual Meeting of Stockholders.
- 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, 2013.
- 3. To approve the 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 indicate, on an advisory basis, the preferred frequency of stockholder advisory votes on the compensation of the Company s named executive officers.
- 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 July 30, 2013. 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

BROOMFIELD, CO

August 1, 2013

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 July 30, 2013 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 August 8, 2013.

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.

8001 Arista Place, Suite 430

Broomfield, Colorado 80021

PROXY STATEMENT

FOR THE 2013 ANNUAL MEETING OF STOCKHOLDERS

SEPTEMBER 17, 2013

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 Stock). Proxies are being solicited on behalf of the Board Directors of ARCA (the Board of Directors) to be used at the Annual Meeting of Stockholders (the Annual Meeting) to be held on Tuesday, September 17, 2013 at 9:00 a.m. local time at the Aloft Broomfield Denver Hotel, 8300 Arista Place, Broomfield, CO 80021 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, 2012, filed with the SEC on March 21, 2013, as amended by our Form 10-K/A filed with the SEC on April 18, 2013 (the 2012 Annual Report), collectively, the Proxy Materials) on or about August 8, 2013. We will also provide access to our Proxy Materials over the Internet by August 8, 2013. 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 2012 Annual Report, which are available at 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 August 8, 2013, 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?

The meeting will be held on Tuesday, September 17, 2013 at 9:00 a.m. local time at the Aloft Broomfield Denver Hotel, 8300 Arista Place, Broomfield, CO 80021. Directions to the annual meeting may be found at www.arcabiopharma.com. Information on how to vote in person at the Annual Meeting is discussed below.

Who can vote at the Annual Meeting?

Only stockholders of record at the close of business on July 30, 2013 will be entitled to vote at the Annual Meeting. On this record date, there were 10,360,862 shares of common stock outstanding and entitled to vote. This figure does not include shares of our common stock which would be issued if outstanding shares of our non-voting Series A Convertible Preferred Stock are converted.

Stockholder of Record: Shares Registered in Your Name

If on July 30, 2013 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. Because our Series A Convertible Preferred Stock is non-voting, the holders of this preferred stock who have not converted it into common stock as of July 30, 2013 are not entitled to vote in person or otherwise.

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

If, on July 30, 2013, 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. Because our Series A Convertible Preferred Stock is non-voting, the holders thereof who have not converted such preferred stock into common stock as of July 30, 2013 are not entitled to vote in person or otherwise.

What am I voting on?

| There | are five | matters | schedu | led for a | vote. |
|-------|----------|---------|--------|-----------|-------|
| | | | | | |

Election of two directors;

Ratification of selection by the Audit Committee of the Board of Directors of KPMG as independent registered public accounting firm of the Company for its fiscal year ending December 31, 2013;

Approval of the ARCA 2013 Equity Incentive Plan;

Advisory approval of the compensation of the Company s named executive officers, as disclosed in this proxy statement in accordance with SEC rules; and

Advisory indication of the preferred frequency of stockholder advisory votes on 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?

You may either vote For all the nominees to the Board of Directors or you may Withhold your vote for any nominee you specify. For 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 ensure your vote is counted. You may still attend the meeting and vote in person even if you have already voted by proxy.

To vote in person, come to the Annual Meeting and we will give you a ballot when you arrive.

To vote using the proxy card, simply complete, sign and date the 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.

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 September 17, 2013 to be counted.

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 September 17, 2013 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 own as of July 30, 2013.

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 both nominees for director, For the ratification of KMPG as the Company s independent registered public accounting firm for the fiscal year 2013, For approval of the ARCA 2013 Equity Incentive Plan, For the advisory approval of executive compensation and for Three Years as the preferred frequency of advisory votes to approve executive compensation. 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 the Notices to ensure that all of your shares are voted.

Can I change my vote after submitting my proxy?

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

You may submit another properly completed proxy card with a later date.

You may grant a subsequent proxy by telephone or through the Internet.

You may send a timely written notice that you are revoking your proxy to ARCA s Secretary at 8001 Arista Place, Suite 430, Broomfield Colorado, 80021.

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 the 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 April 10, 2014, to ARCA s Secretary at 8001 Arista Place, Suite 430, Broomfield Colorado, 80021. 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 June 19, 2014 and no later than July 19, 2014. 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, who will separately count 1) for the proposal to elect directors, votes For and Withhold; 2) with respect to the proposal regarding frequency of stockholder advisory votes to approve executive compensation, votes for frequencies of one year, two years or three years, abstentions and broker non-votes; and, 3) with respect to other proposals, votes For and Against, abstentions and, if applicable, broker non-votes. Abstentions will be counted towards the vote total for each of Proposals 2, 3 and 4, and will have the same effect as Against votes. For Proposal 5, regarding frequency of stockholder advisory votes to approve executive compensation, abstentions will be counted towards the vote total, and will have the same effect as votes against each of the proposed voting frequencies. Broker non-votes have no effect and will not be counted towards the vote total for any proposal.

What are broker non-votes ?

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

How many votes are needed to approve each proposal?

For the election of directors, the two nominees 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 will affect the outcome.

To be approved, Proposal No. 2 to ratify the selection of KPMG LLP as the Company s independent registered public accounting firm for fiscal year 2013 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.

To be approved, Proposal No. 3 to approve the ARCA 2013 Equity Incentive Plan 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.

To be approved, Proposal No. 4, an advisory approval of the compensation of the Company s named executive officers, the 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.

To be approved, Proposal No. 5, the advisory vote on the frequency of stockholder advisory votes on executive compensation, the frequency receiving the votes of the holders of a majority of shares present in person or represented by proxy and entitled to vote at the annual meeting will be considered the frequency preferred by the stockholders. 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, July 30, 2013, there were 10,360,862 shares of common stock outstanding and entitled to vote. Thus, the holders of 5,180,431 shares of common stock must be present in person or represented by proxy at the meeting to have a quorum. Because our Series A Convertible Preferred Stock is non-voting, holders of such preferred stock who have not converted it into common stock as of July 30, 2013 are not entitled to vote in person or otherwise and will have no effect on the quorum requirement.

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.

EXPLANATORY NOTE

The Company, a Delaware Corporation formerly known as Nuvelo, Inc., completed a merger transaction on January 27, 2009, with ARCA biopharma, Inc., a Delaware Corporation (ARCA Colorado), in which ARCA Colorado became a subsidiary of the Company, and ARCA Colorado shareholders acquired a majority of the outstanding stock of the Company. The Company then changed its name to ARCA biopharma, Inc. These transactions are referred to herein as the merger. Unless the context otherwise requires or as otherwise stated herein, all references herein to the Company, ARCA, we, us and our refer to ARCA Colorado prior to the completion of the merger and to ARCA biopharma, Inc following the completion of the merger and the name change, and all references to Nuvelo refer to Nuvelo, Inc. prior to the completion of the merger and the name change. On June 4, 2013, the Company issued 125,000 shares of Series A Convertible Preferred Stock. Each share of Series A Convertible Preferred Stock is convertible into 100 shares of the Company s Common Stock. As of July 30, 2013, there were 53,247 shares of Series A Convertible Preferred Stock outstanding. Other than the Series A Convertible Preferred Stock, the Company has no other shares of Preferred Stock outstanding. Unless otherwise noted, all references in this document to shares outstanding refer only to outstanding shares of Common Stock and do not include shares issuable upon the conversion of outstanding Series A Convertible Preferred Stock.

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 is currently one Class II director, whose term expires at the annual stockholders meeting in 2014, and two Class I directors whose terms expire at the annual stockholders meeting in 2013. The Board of Directors has nominated two Class I directors, Dr. Linda Grais and Dr. John L. Zabriskie, for election to the Board of Directors, each for a three-year term ending on the date of the annual meeting in 2016 or until a successor is duly elected and qualified or appointed. There is currently one vacancy on the Board. Vacancies on the Board may be filled only by persons elected by a majority of the remaining directors. A director elected by the Board to fill a vacancy in a class, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director s successor is duly elected and qualified. The Company may also reduce or increase the size of the Board by resolution adopted by the affirmative vote of a majority of the directors.

If elected at the Annual Meeting, each of these nominees would serve until the 2016 annual meeting and until his or her successor has been duly elected and qualified, or, if sooner, until the director s death, resignation or removal. It is the Company s policy to encourage directors and nominees for director to attend the Annual Meeting. Four of the Company s directors then on the Board attended the 2012 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 two nominees receiving the highest number of affirmative votes will be elected. Each person nominated for election has agreed to serve if elected. The Company s management has no reason to believe that any nominee will be unable to serve.

Director Qualifications and Diversity

The below paragraphs provide information as of the date of this proxy statement about each 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 specific experience, qualifications, attributes and skills that led the Board to conclude that such director or nominee should be able to serve as a director, the Board 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.

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 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.

Nominees for Election for a Three-year Term Expiring at the 2016 Annual Meeting

THE BOARD OF DIRECTORS RECOMMENDS

A VOTE IN FAVOR OF EACH NAMED NOMINEE.

Linda Grais, M.D.

Dr. Grais, age 57, has served as a member of the Company s Board of Directors since the merger with Nuvelo in January 2009. Before the merger, Dr. Grais had served as a director of ARCA Colorado since May 2007. Dr. Grais has been a director of Ocera Therapeutics, Inc., a privately held 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 focusing on new treatments for cancer. 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. Dr. Grais is an appropriate nominee to the Company s 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 had extensive experience with and knowledge of the Company s business from her service on the Board of ARCA Colorado since 2007, and her service as a Board and Committee member for the Company since January 2009.

John L. Zabriskie, Ph.D.

Dr. Zabriskie, age 74, has served as a member of the Company s Board of Directors since the merger with Nuvelo in January 2009. Before the merger, Dr. Zabriskie had served as a director of ARCA Colorado since March 2005. Dr. Zabriskie is Co-Founder and Director of PureTech Ventures, LLC, a firm that co-founds life science companies, and the past Chairman of the Board, Chief Executive Officer, and President of NEN Life Science Products, Inc., a supplier of kits for labeling and detection of DNA. Prior to joining NEN Life Science Products in July 1997, Dr. Zabriskie was President and Chief Executive Officer of Pharmacia and Upjohn, Inc., a pharmaceutical company. Prior to joining Upjohn in 1994, Dr. Zabriskie was Executive Vice President for Merck & Co., Inc. He currently serves on the Board of Directors of Array BioPharma Inc., Kellogg Co. and PureTech Ventures. As part of a member of the Board of Directors for Kellogg Co., Dr. Zabriskie has served on the audit committee and compensation committee for the past ten years. Within the past five years, Dr. Zabriskie has also served on the Board of Directors of MacroChem Corporation. Dr. Zabriskie received his undergraduate degree in chemistry from Dartmouth College and his Ph.D. in organic chemistry from the University of Rochester. Dr. Zabriskie is an appropriate nominee to the Company s Board of Directors due to his extensive experience in the pharmaceutical industry, including senior management experience up to the level of president and chief executive officer of significant public companies, as well as his experience on the boards of directors of public companies, including service on audit committees. Dr. Zabriskie also has extensive experience with and knowledge of the Company s business from his service on the Board of ARCA Colorado since 2005, his service as a Board member and Chairman of the Audit Committee of the Company since January 2009, and his service as a member of the Compensation Committee since March 2011.

DIRECTORS CONTINUING IN OFFICE UNTIL THE 2014 ANNUAL MEETING

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

Dr. Bristow, age 68, has served as the Company s President and Chief Executive Officer since July 2009. Prior to that time, Dr. Bristow served as the Company s Chief Science and Medical Officer and a director since the merger with Nuvelo. Dr. Bristow has also served as a director of ARCA Colorado since November 2006. Dr. Bristow was one of the founders of ARCA Colorado in September 2004, and served as its Chairman and

Chief Executive Officer from that date until he was appointed to the position of Chief Science and Medical Officer in November 2006. 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., a cardiovascular therapeutics company, 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 a 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 ARCA Colorado, and the current President and Chief Executive Officer of ARCA, and as a Board member of ARCA Colorado since 2005, and of the Company since January 2009.

DIRECTORS CONTINUING IN OFFICE UNTIL THE 2015 ANNUAL MEETING

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

Dr. Woosley, age 70, was appointed to the ARCA 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 from 2005 to 2011. Since 2012, Dr. Woosley has also been the Director of the Arizona Center for Education and Research on Therapeutics (AzCERT), 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 Company s Board of Directors, given his expertise and experience in cardiovascular clinical pharmacology, anti-arrhythmic therapeutics, pharmacogenetic drug development and therapeutic regulatory approval.

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. The Board consults with the Company s counsel to ensure that the Board s 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 has affirmatively determined that the following four directors are independent directors within the meaning of the applicable NASDAQ listing standards: Dr. Woosley, Dr. Grais, and Dr. Zabriskie. In making this determination, the Board 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 Board has a Lead Independent Director, Dr. Linda Grais, who performs many of the duties of the Chairman when such position has not been appointed. In this capacity, Dr. Grais, among other things, calls and presides over Board meetings, including meetings of the independent directors, and sets meeting agendas. Accordingly, the Lead Independent Director has substantial ability to shape the work the of the Board when performing many of the duties of the Chairman of the Board.

The Company separates the roles of CEO and Chairman of the Board in recognition of the differences between the two roles. The Company believes that the CEO should be responsible for the day to day leadership and performance of the Company, while the Chairman of the Board should set the strategic direction and provide guidance to the CEO. The Chairman also sets the agenda for Board meetings and presides over them. The Company currently has no formal Chairman, but as Lead Independent Director, and given her association with ARCA Colorado since soon after its inception, Dr. Grais is well-suited to perform many of the functions of the Chairman of the Board. As CEO, Dr. Bristow is able to implement the strategic initiatives and business plans approved by the Board.

Because the former ARCA Chairman was not independent, the Board appointed Dr. Grais as Lead Independent Director to help reinforce the independence of the Board as a whole. The position of Lead Independent Director has been structured to serve as an effective balance to the Chief Executive Officer and Board Chair. The Lead Independent Director is empowered to coordinate the activities of the other independent directors and perform such other duties and responsibilities as the Board may determine, including: scheduling and presiding over regular meetings of the independent directors; serving as principal liaison between the Chairman of the Board and the independent directors; providing the Chairman of the Board with input as to the preparation of the agendas for Board; providing the Chairman with input as to the information submitted by the Company s management in order for the independent directors to perform their duties; making recommendations to the Board on behalf of the independent directors; and undertaking such further responsibilities that the independent directors as a whole may designate to the Lead Independent Director from time to time.

In addition, the Company believes that the Lead Independent Director can effectively coordinate between the Board and management with regard to the determination and implementation of responses to any problematic risk management issues. As a result, the Company believes that the Lead Independent Director can help ensure the effective independent functioning of the Board in its oversight responsibilities. In addition, the Company believes that the Lead Independent Director is well positioned to build a consensus among directors and to serve as a conduit between the other independent directors and the Board Chairman, for example, by facilitating the inclusion on meeting agendas of matters of concern to the independent directors.

ROLE OF THE BOARD IN RISK OVERSIGHT AND RISK MANAGEMENT

One of the Board s key functions is informed oversight of the Company s risk management process. The Board does not have a standing risk management committee, but rather administers this oversight function directly through the Board as a whole, as well as through various Board standing committees that address risks inherent in their respective areas of oversight. In particular, while the Board 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 monitors the effectiveness of the corporate governance guidelines, including whether they are successful in preventing illegal or improper liability-creating conduct. The compensation committee assesses and monitors whether any compensation policies and programs have the potential to encourage excessive risk-taking. The entire Board 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 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 as quickly as possible.

MEETINGS OF THE BOARD OF DIRECTORS

The Board of Directors met fourteen times during the 2012 fiscal year. The independent members of the Board met separately as a group in connection with each of the four regularly scheduled meetings in 2012.

Information Regarding Committees of the Board of Directors

The Board has three standing committees: an Audit Committee, a Compensation Committee, and a Nominating and Corporate Governance Committee. The following table provides membership and meeting information for fiscal year 2012, for each of the Board committees:

| Name | Audit | Compensation | Nominating and Corporate Governance |
|-------------------------------|-------|--------------|---|
| Dr. Michael R. Bristow | | _ | |
| Dr. Jean-François Formela(1) | | X | |
| Dr. John L. Zabriskie | X* | X | |
| Dr. Linda Grais | X | X* | X* |
| Total meetings in fiscal 2012 | 5 | 4 | 4 |

- (1) On July 26, 2013 Dr. Formela resigned from the Board.
- * 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 of the Board of Directors was established by the Board in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the Exchange Act), to oversee the Company s corporate accounting and financial reporting processes and audits of its financial statements. For this purpose, the Audit Committee performs several functions. The Audit Committee evaluates the performance of and assesses the qualifications of the independent 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 two directors: Dr. Zabriskie (chair) and Dr. Grais, as a result of the death of the third member in May, 2013. The Audit Committee met five times during the fiscal year. The Audit Committee has adopted a written charter that is available to stockholders on the Company s website at www.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 Company s Audit Committee are independent (as independence is currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the NASDAQ listing standards). The Board of Directors has also determined that Dr. Zabriskie qualifies as an audit committee financial expert, as defined in applicable SEC rules. The Board made a qualitative assessment of Dr. Zabriskie 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 ¹

The Audit Committee has reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2012 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, 2012.

Dr. John Zabriskie

Dr. Linda Grais

Compensation Committee

The Compensation Committee is currently composed of two directors: 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 four 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.

The Compensation Committee of the Board of Directors acts on behalf of the Board 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;

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

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:

preparing and discussing with the Company s management the Compensation Discussion and Analysis, or the CD&A, if required to be included in the Company s annual meeting proxy statement, and recommending to the Board that the CD&A be included in the annual meeting proxy statement, to the extent required; 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.

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 early 2009, the Compensation Committee retained the services of a compensation consultant, Compensia, to assist the Compensation Committee in assessing ARCA's equity and cash compensation to all employees. In February 2009, the Company's Board of Directors and Compensation Committee completed a review of the Company's executive compensation in light of general market conditions in the life science industry and the completion of the merger with Nuvelo, pursuant to which the management of ARCA became the management of the Company. Compensia assisted in this review. As part of this review process, Compensia identified a peer group of pre-revenue generating biotechnology companies that had become public companies prior to the middle of 2006. This peer group included Acadia Pharmaceuticals, Alexza Pharmaceuticals, Allos Therapeutics, Array Biopharma, Cytokinetics, Cytori Therapeutics, Dendreon, Geron, Incyte, Intermune, Neurocrin Biosciences and Pain Therapeutics. No other services were retained from compensation consultants.

In setting 2009 base salary and cash bonus award amounts for the ARCA Named Executive Officers, the Compensation Committee analyzed the peer group data and targeted cash compensation in the 50th percentile of cash compensation paid to similarly situated executive officers within the peer group. In 2010, the Compensation Committee reassessed these salary determinations in light of the Company's financial condition and current market conditions, and adjusted these salaries accordingly. The Board recommended and approved no increases in salaries for executive officers for the fiscal year 2010, except for an increase in salary for the Chief Financial Officer. In early 2011, the Board recommended and approved three percent increases to executive officer salaries for the fiscal year 2011. In early 2012, the Compensation Committee determined not to increase executive salaries in light of Company financial status and uncertainty regarding the timing or nature of Company financing activities. In 2013, after the Company had successfully completed a financing, the Compensation Committee recommended and the Board approved bonuses based on previous performance for the ARCA Named Executive Officers and a salary increase for the Chief Financial Officer.

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. 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 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 Committee by the Chief Executive Officer. The 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 Committee may solicit comments from the other non-employee members of the Board and lead the Board in an overall review of the Chief Executive Officer s performance in an executive session of non-employee Board members. If the compensation for the Chief Executive Officer or any other executive officer is governed by an employment agreement, the Committee approves such employment agreement and any amendments thereto.

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 of the Board of Directors is responsible for identifying, reviewing and evaluating candidates to serve as directors of the Company (consistent with criteria approved by the Board), reviewing and evaluating incumbent directors, recommending to the Board candidates for election to the Board of Directors, making recommendations to the Board regarding compensation for Board and Committee service, making recommendations to the Board regarding the membership of the committees of the Board, assessing the performance of the Board and developing a set of corporate governance principles for the Company. The Nominating and Corporate Governance Committee is currently composed of two directors, Dr. Grais and Dr. Woosley. All members of the Nominating and Corporate Governance Committee in 2012 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 2012 fiscal year. The Nominating and Corporate Governance Committee has adopted a written charter that is available to stockholders on the Company s website and www.arcabiopharma.com.

The Board has adopted a process for identifying and evaluating director nominees, including stockholder nominees. Before recommending an individual to the Board for Board membership, the Nominating and Corporate Governance Committee canvasses its members and the Company s management team for potential members of the Board of Directors. 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 regularly 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 has not adopted a fixed set of minimum qualifications for candidates for Board membership, the Nominating and Corporate Governance Committee generally considers several factors in its evaluation of each potential member, such as the potential member s area of expertise, education, and professional background, experience in corporate governance, 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 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, the operating requirements of the Company and the long-term interests of stockholders. In conducting this assessment, the Nominating and Corporate Governance Committee typically considers diversity, age, skills and such other factors as it deems appropriate given the current needs of the Board and the Company, to maintain a balance of knowledge, experience and capability. The Nominating and Corporate Governance Committee believes it is essential that Board members come from a variety of backgrounds and experiences. In the case of incumbent directors whose terms of office are set to expire, the Nominating and Corporate Governance Committee reviews these directors overall service to the Company during their terms, including the number of meetings attended, level of participation, quality of performance and any other relationships and transactions that might impair the directors independence. In the case of new director candidates, the Nominating and Corporate Governance Committee also determines whether the nominee is independent for NASDAQ purposes, which determination is based upon applicable NASDAQ listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The Nominating and Corporate Governance Committee then uses its network of contacts to compile a list of potential candidates, but may also engage, if it deems appropriate, a professional search firm. The Nominating and Corporate Governance Committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the Board. The Nominating and Corporate Governance Committee meets to discuss and consider the candidates qualifications and then selects a nominee for recommendation to the Board by majority vote.

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 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 or stockholders holding more than 5% of the Company s voting stock.

In 2012, the Nominating and Corporate Governance Committee did not pay any fees to anyone to assist in the process of identifying or evaluating director candidates.

STOCKHOLDER COMMUNICATIONS WITH THE BOARD OF DIRECTORS

The Company s Board has adopted a formal process by which stockholders may communicate with the Board or any of its directors. Stockholders who wish to communicate with the Board may do so by mail or e-mail as specifically set forth on ARCA s website at www.arcabiopharma.com, under the section titled, Investors and the subsection titled Corporate Governance.

CODE OF 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. 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 of the Board of Directors has selected KPMG LLP as the Company s independent registered public accounting firm for the fiscal year ending December 31, 2013 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 audited the Company s 2009, 2010, 2011 and 2012 fiscal year financial statements as well. 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 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 of the Board will reconsider whether or not to retain that firm. Even if the selection is ratified, the Audit Committee of the Board in its discretion may direct the appointment of 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 LLP. 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, 2012 and December 31, 2011 by KPMG, the Company s independent registered public accounting firm.

| | Fiscal Year Ended 2012 | Fiscal Year Ended 2011 |
|--------------------|---------------------------|---------------------------|
| Audit Fees (1) | \$ 148,875 | \$ 172,759 |
| Audit-related Fees | | |
| Tax Fees (2) | | \$ 16,500 |
| All Other Fees | | |
| | | |
| Total Fees | \$ 147,875 | \$ 189,259 |

- (1) Audit Fees include fees for the (i) audit of the consolidated financial statements included in our Form 10-K for our fiscal years ended December 31, 2012 and December 31, 2011, (ii) review of interim consolidated financial statements included on Forms 10-Q and (iii) attest, consent and review services normally provided by the accountant in connection with SEC filings.
- (2) Tax fees include fees for services rendered by KPMG for tax compliance, tax advice and tax planning. 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 describes 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 member must update the Audit Committee at the next regularly scheduled meeting of any services that were granted specific pre-approval.

The report of the independent registered public accounting firm, KPMG, on the consolidated financial statements of the Company for the year ended December 31, 2012, included in Item 8. Financial Statements and Supplementary Data of our Form 10-K/A, filed with the SEC on April 18, 2013, states that the Company s recurring losses from operations, dependence upon raising additional funds from strategic transactions, sales of equity, and/or issuance of debt, and the uncertainty surrounding the Company s ability to consummate such transactions, raise substantial doubt about the Company s ability to continue as a going concern. KPMG s report on the consolidated financial statements for the past two years contained no adverse opinion or disclaimer of opinion and was not qualified as to audit scope or accounting principles.

The Audit Committee pre-approved all audit related, tax and other services rendered in 2012 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 ARCA 2013 EQUITY INCENTIVE PLAN

The ARCA biopharma, Inc. 2013 Equity Incentive Plan or 2013 Plan was adopted by our Board of Directors on July 26, 2013, subject to stockholder approval. The 2013 Plan is the successor to the Amended and Restated ARCA biopharma, Inc. 2004 Equity Incentive Plan or 2004 Plan.

Approval of the 2013 Plan will allow us to continue to grant stock awards at levels determined appropriate by our Board of Directors and Compensation Committee. The 2013 Plan will allow us to utilize a broad array of equity incentives and performance cash incentives in order 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 2013 Plan includes 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 2013 Plan does not contain an annual evergreen provision. The 2013 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. We are not requesting an increase to the number of shares of common stock available for issuance at this time.

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.

Impact of Stockholder Approval

We manage our long-term stockholder dilution by limiting the number of equity incentive awards granted annually. The Board carefully monitors our annual burn rate, dilution, and equity expense to ensure that we maximize stockholders value by granting only the appropriate number of equity incentive awards necessary to attract, reward, and retain employees.

Our gross and net burn rates for our options plans for the prior three years are in the table below.

| | 2012 | 2011 | 2010 |
|---------------------|------|-------|-------|
| Gross Burn Rate (1) | 6.7% | 11.1% | 12.3% |
| Net Burn Rate (2) | 6.5% | 8.6% | 11.8% |

- (1) Gross Burn Rate is (shares subject to options granted + shares subject to other equity incentive awards granted)/weighted average common shares outstanding.
- (2) Net Burn Rate is (shares subject to options granted + shares subject to other equity incentive awards granted shares subject to options and other equity incentives that expired, terminated or were forfeited)/weighted average common shares outstanding.

If our request to approve the 2013 Equity Plan is approved by our stockholders, we will have approximately 2,250,000 shares available for grant after our 2013 Annual Meeting of Stockholders, which we anticipate being a three year pool of shares and necessary to provide a predictable amount of equity for attracting, retaining, and motivating employees.

If this Proposal 3 is approved by our stockholders, the 2013 Plan will become effective September 17, 2013, following which no additional stock awards will be granted under the 2004 Plan (although all outstanding stock awards granted under the 2004 Plan will continue to be subject to the terms and conditions as set forth in the

agreements evidencing such stock awards and the terms of the 2004 Plan). In the event that our stockholders do not approve this Proposal 3, the 2013 Plan will not become effective and the 2004 Plan will continue in its current form.

Approval of the 2013 Plan by our stockholders will also constitute approval of terms and conditions set forth therein that will permit us to grant stock options and performance awards under the 2013 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 stock options and performance stock 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 2013 Plan, which includes terms regarding eligibility for awards, per-person limits on awards and the business criteria for performance awards granted under the 2013 Plan (as described in the summary below).

Description of the 2013 Plan

The material features of the 2013 Plan are outlined below. This summary is qualified in its entirety by reference to the complete text of the 2013 Plan. Stockholders are urged to read the actual text of the 2013 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.

Types of Awards

The terms of the 2013 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 3 is approved, the aggregate number of shares of our common stock that may be issued pursuant to stock awards under the 2013 Plan will not exceed 2,250,000 shares. Such maximum number of shares reserved for issuance consists of 2,250,000 newly requested shares.

If a stock award granted under the Plan (1) expires or otherwise terminates without all of the shares covered by the stock award being issued, or (2) is settled in cash (that is, the holder of the stock 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 award granted under the 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 Plan. Any shares that we reacquire in satisfaction of tax withholding obligations on a stock award or as consideration for the exercise price or purchase price of a stock award will again become available for issuance under the Plan.

As of July 30, 2013, there were 85,500 shares available for grant under the 2004 Plan. As of July 30, 2013, stock options to purchase approximately 137,705 shares were outstanding and awards other than stock options covering aggregate of 2,783 shares were outstanding. The weighted-average exercise price of all stock options outstanding as of July 30, 2013 was \$18.05, and the weighted-average remaining term of such stock options was 4.41 years. As of July 30, 2013, the closing price of our common stock as reported on the NASDAQ Global Market was \$1.40 per share, a total of 10,360,862 shares of our common stock were outstanding and a total of 53,247 shares of our Series A Convertible Preferred Stock were outstanding, which in the aggregate are convertible into 532,470 shares of our common stock. As of July 30, 2013, no awards have been granted under the 2013 Plan.

Eligibility

All of our employees, non-employee directors and consultants are eligible to participate in the 2013 Plan and may receive all types of awards; provided that incentive stock options may be granted under the 2013 Plan only to our employees (including officers) and employees of our affiliates. As of July 30, 2013, we have 11 employees and three non-employee directors.

Grant Limits

Under the 2013 Plan, a maximum of 1,000,000 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 500,000 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 200,000 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 75,000 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 200,000 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 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.

Administration

The 2013 Plan is administered by our Board of Directors, which may in turn delegate authority to administer the 2013 Plan to a committee. Our Board of Directors has delegated concurrent authority to administer the 2013 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 2013 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 2013 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.

Repricing; Cancellation and Re-Grant of Stock Awards

Under the 2013 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 2013 Plan pursuant to stock option agreements. The 2013 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 2013 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 2013 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 2013 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 2013 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 2013 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 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 2013 Plan is 6,750,000 shares.

Restricted Stock Awards

Restricted stock awards may be granted under the 2013 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 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 2013 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 2013 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 2013 Plan.

Performance Awards

The 2013 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 2013 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 2013 Plan will be based on any one or more of the following performance criteria: (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; (xxii) 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 of Directors.

(i) 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 (and the Board of Directors, to the extent that an award is not intended to comply with Section 162(m) of the Code) may provide that performance will be appropriately adjusted 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 extraordinary 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 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.

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 2013 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 2013 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 2013 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 2013 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 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 2013 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 2013 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 2013 Plan) as may be provided in the stock award agreement or other written agreement with the participant, but in the absence of such provision, 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 2013 Plan at any time. However, except as otherwise provided in the 2013 Plan, no amendment or termination of the 2013 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 2013 Plan as required by applicable law and listing requirements. No ISOs may be granted under the 2013 Plan after the tenth anniversary of the earlier of the date the 2013 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 2013 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 if the stock option is granted with an exercise price equal to the fair market value of the underlying stock on the grant date. 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 is 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 is 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.

Incentive Stock Options

The 2013 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 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.

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 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 2013 Plan stock appreciation rights separate from any other award or in tandem with other awards under the 2013 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.

New Plan Benefits

Awards under the 2013 Plan are discretionary and are not subject to set benefits or amounts, and we have not approved any awards that are conditioned on stockholder approval of the 2013 Plan. Accordingly, we cannot currently determine the benefits or number of shares subject to awards that may be granted in the future to executive officers, directors or employees under the 2013 Plan.

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.

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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 now entitled to vote to approve, on an advisory basis, the compensation of the Company s 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 Company s 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 Company s 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 is asking the stockholders to indicate their support for the compensation of the Company s 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.

Because the vote is advisory, it is not binding on the Board. Nevertheless, the views expressed by the stockholders, whether through this vote or otherwise, are important to management and the Board and, accordingly, the Board 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

Proposal 5

ADVISORY VOTE ON THE FREQUENCY OF SOLICITATION OF THE ADVISORY VOTE ON EXECUTIVE COMPENSATION

The Dodd-Frank Act and Section 14A of the Exchange Act also enable the Company s stockholders to indicate their preference regarding how frequently the Company should solicit a non-binding advisory vote on the compensation of the Company s named executive officers as disclosed in the Company s proxy statements. Accordingly, the Company is asking stockholders to indicate whether they would prefer an advisory vote every year, every other year or every three years or abstaining from voting.

After considering the benefits and consequences of each alternative, the Board recommends that the advisory vote on the compensation of the Company s named executive officers be submitted to the stockholders once every three years.

The Board believes that a triennial advisory vote on the compensation of the Company s named executive officers is most consistent with our approach to compensation. Our reasons include our beliefs that:

an effective compensation program should incentivize performance over the short- and long-term;

long-term incentives should be a significant component of executive compensation, particularly because the biopharmaceutical industry requires focus on long-term goals and objectives that can take several years to achieve, such as obtaining regulatory approval to market the Company s product candidates, advancing drug development programs, pursuing new indications, expanding research and development efforts and expanding the Company s product portfolio. As a result, the actions and decisions of the Company s named executive officers often require a long time horizon before the Company realizes a tangible financial benefit;

a three-year advisory vote cycle gives the Board sufficient time to thoughtfully consider the results of the advisory vote regarding named executive officer compensation and to implement any desired changes to its named executive officer compensation policies and procedures; and

a three-year advisory vote cycle will provide the Company s stockholders sufficient time to evaluate the effectiveness of the Company s short- and long-term named executive officer compensation strategies and its related performance.

The Board intends that the compensation program be responsive to stockholder concerns, but is concerned that an annual vote could encourage a short-term approach to our compensation plans, based on short-term business or market conditions, and undermine some of the compensation program s key features. The Company believes that a vote on its executive compensation by its stockholders every three years will encourage stockholders to take the same long-term approach to the Company s compensation programs taken by its executives and Compensation Committee

Accordingly, the Board is asking stockholders to indicate their preferred voting frequency by voting for one, two or three years or abstaining from voting on the resolution below:

RESOLVED, that the alternative of soliciting advisory stockholder approval of the compensation of the Company s named executive officers once every one, two or three calendar years that receives the highest number of votes from the holders of shares present in person or represented by proxy and entitled to vote at the annual meeting shall be considered the frequency preferred by the stockholders.

While the Board believes that its recommendation is appropriate at this time, the stockholders are not voting to approve or disapprove that recommendation, but are instead asked to indicate their preferences, on an advisory basis, as to whether the non-binding advisory vote on the approval of the Company s executive officer compensation practices should be held every year, every other year or every three years. The option among those

choices that receives the highest number of votes from the holders of shares present in person or represented by proxy and entitled to vote at the annual meeting will be deemed to be the frequency preferred by the stockholders.

The Board and the Compensation Committee value the opinions of the stockholders in this matter, and the Board intends to hold say-on-pay votes in the future in accordance with the alternative that receives the most stockholder support, even if that alternative does not receive the support of a majority of the shares present and entitled to vote.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS

A VOTE IN FAVOR OF THREE YEARS ON PROPOSAL 5

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 June 17, 2013 by: (i) each 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., 8001 Arista Place, Suite 430, Broomfield, CO 80021. The following table does not include 59,881 outstanding shares of our Series A Convertible Preferred Stock, or the 598,810 shares of Common Stock into which such shares were convertible, as of June 17, 2013.

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 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 or warrants held by that person that are currently exercisable or exercisable within 60 days of June 17, 2013. 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 9,697,462 shares of our common stock outstanding as of June 17, 2013.

| Beneficial Owner | Shares Beneficially Owned | Percentage of Shares Beneficially Owned |
|--|---------------------------------|--|
| Directors and Named Executive Officers | | |
| Michael R. Bristow, M.D., Ph.D. (1) | 720,638 | 7.22% |
| Patrick M. Wheeler (2) | 13,484 | * |
| Christopher D. Ozeroff (3) | 28,944 | * |
| Jean-Francois Formela, M.D. (4) | 318,501 | 3.27% |
| Linda Grais, M.D. (5) | 2,999 | * |
| John L. Zabriskie, Ph.D. (6) | 48,172 | * |
| All current directors and executive officers as a group (6 persons) (7) | 1,132,737 | 11.24% |
| 5% Stockholders | | |
| Michael R. Bristow, M.D., Ph.D. (1) | 720,638 | 7.22% |
| Entities affiliated with Sabby Healthcare Volatility Master Fund, Ltd. (8) | 636,476 | 9.99% |

- * Represents beneficial ownership of less than 1% of our Common Stock.
- (1) Includes the following owned by (i) Investocor Trust: (a) 139,082 shares and (b) 104,311 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) 178,215 shares and (b) 124,750 shares issuable upon the exercise of warrants, which warrants are immediately exercisable; and (iii) options to purchase 10,451 shares that are exercisable within 60 days of June 17, 2013.
- (2) Includes options to purchase 12,928 shares that are exercisable within 60 days of June 17, 2013.
- (3) Includes (a) options to purchase 3,473 shares that are exercisable within 60 days of June 17, 2013, and (b) 7,934 shares issuable upon the exercise of warrants, which warrants are immediately exercisable.

- (4) Includes the following owned directly by Atlas Venture Fund VII, L.P. (AV VII): (a) 263,256 shares and (b) 52,247 shares issuable upon exercise of warrants, which warrants are immediately exercisable. Atlas Venture Associates VII, L.P. (AVA VII LP) is the general partner of AV VII. Atlas Venture Associates VII, Inc (AVA VII Inc.) is the general partner of AVA VII LP. Each AVA VII LP and AVA VII Inc., may also be deemed to beneficially own these shares. Dr. Formela, a director at AV VII Inc., and one of the Company s directors may be deemed to beneficially own these shares. Dr. Formela disclaims beneficial ownership of these shares except to the extent of his pecuniary interest therein. Each of AV VII, AVA VII LP and AVA VII Inc. disclaims beneficial ownership of the shares except to the extent of its pecuniary interest therein. Also includes options to purchase 2,999 shares that are exercisable within 60 days of June 17, 2013. These options were granted to Dr. Formela and the proceeds of any sale of the Company s Common Stock issued to Dr. Formela upon the exercise of this option will be transferred to Atlas Venture Advisors, Inc. (Atlas Advisors) and therefore Dr. Formela disclaims beneficial ownership of such shares which belong to Atlas Advisors. The address for Dr. Formela is 25 First Street, Suite 303, Cambridge, MA 02141.
- (5) Includes options to purchase 2,999 shares that are exercisable within 60 days of June 17, 2013.
- (6) Consists of (a) options to purchase 6,282 shares that are exercisable within 60 days of June 17, 2013 granted to Dr. Zabriskie, and (b) 26,021 shares and 15,868 shares issuable upon the exercise of warrants, which warrants are immediately exercisable, owned directly by Lansing Brown Investments, LLC. Dr. Zabriskie, one of the Company s directors, is the President of Lansing Brown Investments, LLC. Dr. Zabriskie has shared voting and dispositive powers over the shares held by Lansing Brown Investments, LLC. He disclaims beneficial ownership of these shares, except to the extent of his pecuniary interest in them.
- (7) See Notes (1) through (6) above.
- (8) Based solely upon a Schedule 13G filed with the SEC on June 3, 2013. The address for Sabby Healthcare Volatility Master Fund, Ltd. is c/o Ogier Fiduciary Services (Cayman) Limited, 89 Nexus Way, Camana Bay, Grand Cayman KY1-9007, Cayman Islands.

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, 2012, all Section 16(a) filing requirements applicable to its officers, directors and ten percent beneficial owners were complied with.

EXECUTIVE OFFICERS

Set forth below is information regarding each of the executive officers as of August 1, 2013.

| Name | Age | Position |
|----------------------------------|-----|--|
| Michael R. Bristow, M.D., Ph.D.* | 68 | President and Chief Executive Officer |
| Patrick M. Wheeler | 44 | Chief Financial Officer |
| Christopher D. Ozeroff | 54 | Secretary, Senior Vice President and General Counsel |

^{*} Also serves as a director.

Michael R. Bristow, M.D., Ph.D. Dr. Bristow s biography is included under Directors Continuing in Office Until the 2014 Annual Meeting above.

Patrick M. Wheeler. Mr. Wheeler has served as the Company s Chief Financial Officer since May 21, 2010. Previously, he held the position of Acting Chief Financial Officer since December 7, 2009, and he held the position of Senior Vice President, Finance of the Company since our merger with Nuvelo, Inc. in January 2009. Mr. Wheeler joined ARCA Colorado in July 2006 as Vice President, Finance and held the position of Senior Vice President, Finance from February 2008 until the completion of the merger with Nuvelo. Prior to his time with ARCA Colorado, he served as Director of Finance for Dharmacon, Inc., a Fisher Scientific, Inc. life science company, from June 2003 to July 2006. Mr. Wheeler has a B.A. in economics from the University of Colorado and an M.B.A. from Regis University.

Christopher D. Ozeroff. Mr. Ozeroff has served as the Company s Senior Vice President since December 2009. Additionally, Mr. Ozeroff has served as the Company s General Counsel and Secretary since January 2009. Previously, Mr. Ozeroff served as the Company s Executive Vice President of Business Development, General Counsel and Secretary since the merger with Nuvelo. Before the merger, Mr. Ozeroff was a co-founder of ARCA Colorado in September 2004, and had served as its Executive Vice President of Business Development, General Counsel and Secretary since that date. 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, 2011 and December 31, 2012, compensation awarded to, paid to, or earned by the Company s principal executive officers and its other named executive officers as of December 31, 2012, collectively, the Named Executive Officers:

SUMMARY COMPENSATION TABLE FOR FISCAL 2012 AND 2011

| Name and Principal Position | Year | Salary (\$)(2) | Option Awards (\$)(1) | Bonus (\$) | All Other Compensation (\$) | Total (\$) |
|---|------|-------------------|-----------------------------|---------------|-----------------------------------|------------|
| • | | | (\$)(1) | | | (., |
| Michael R. Bristow, President and Chief Executive Officer | 2012 | 246,705 | | 13,304 | 9,868 | 269,877 |
| | 2011 | 272,950 | 54,756 | | 10,912 | 338,618 |
| Patrick M. Wheeler, Chief Financial Officer | 2012 | 200,157 | | | 8,006 | 208,163 |
| | 2011 | 221,450 | 36,504 | | 8,853 | 266,807 |
| Christopher D. Ozeroff, Senior Vice President and General | | | | | | |
| Counsel | 2012 | 241,119 | | | 4,606 | 245,725 |
| | 2011 | 266,770 | 36,504 | | 4,509 | 307,783 |

- (1) The amounts reported under Option 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 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 9 to the Company s consolidated financial statements included in our annual report on Form 10-K for the year ended December 31, 2012 and filed with the SEC on March 21, 2013.
- (2) 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.

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.

The Company s Board of Directors approved a 2011 base salary for Dr. Bristow of \$272,950 and a 2012 base salary of \$245,655 as a measure to preserve the Company s available capital. Dr. Bristow s salary is subject to annual increases if approved by the Company s Board of Directors or Compensation Committee and he is eligible to receive an annual bonus as determined by the Board of Directors or Compensation Committee in its sole discretion.

On March 26, 2012, the Compensation Committee approved a 2011 cash bonus for Dr. Bristow in the amount of \$60,049 for partial achievement of the Company s 2011 performance goals. Specifically, the Board determined that the Company had achieved certain of its 2011 performance goals during the fiscal year 2011 by maintaining Nasdaq listing requirements, meeting Company budget goals and by achieving certain product development goals, and had engaged in substantial efforts towards achieving the goal to advance the Company s Gencaro atrial fibrillation regulatory approval process. However, due to the Company s limited financial resources, the Board concluded that the Company would pay cash bonuses for partial achievement of the 2011 performance goals during the 2012 fiscal year upon the Company s completing a transaction providing financing for the Company s planned atrial fibrillation clinical trial (the AF Milestone). Because the AF Milestone was not achieved in 2012, Dr. Bristow s deferred 2011 cash bonus was not paid and will not be rolled over. Dr. Bristow received a bonus of \$13,304 in 2012 to reimburse him for certain health benefit costs. Other than such reimbursement, no bonuses were paid to any Company employees in 2012 as a measure to preserve the Company s available capital.

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) 6 months of his base salary (if such termination occurs on the same day as or within thirteen 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 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 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 the employment agreement or the Employee Intellectual Property, Confidentiality and Non-Compete Agreement, or any other agreement, with the Company. Good reason includes a relocation of 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.

On June 13, 2013, the Board, upon the recommendation of the Compensation Committee, approved a cash bonus of \$70,000 for Dr. Bristow, which was paid on June 28, 2013. The Board also approved, upon the recommendation of the Compensation Committee, a 2013 base salary of \$272,950 for Dr. Bristow. The Board, upon the recommendation of the Committee, determined the bonus is to be paid to Dr. Bristow in recognition of his past efforts and increased his salary to the level that was in place prior to the Dr. Bristow s voluntary salary reduction which was implemented to save the Company s available capital. Dr. Bristow s new base salary became effective on June 24, 2013. The Board, upon the recommendation of the Committee, also approved the grant of a severance package for Dr. Bristow which would require the Company to make severance payments, in an amount equal to 6 months of his base salary, to Dr. Bristow in the event his employment is terminated under certain situations, as summarized above.

Patrick M. Wheeler. Mr. Wheeler serves as the Company s Chief Financial Officer under an Employment Agreement dated February 11, 2009, as amended pursuant to a Waiver and Amendment Agreement executed as of March 30, 2012. Under his employment agreement, Mr. Wheeler is entitled to receive an annual base salary of \$215,000, 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. The Company s Board of Directors approved a 2011 base salary for Mr. Wheeler of \$221,450 and a 2012 base salary of \$199,305 as measure to preserve the Company s available capital.

On March 26, 2012, the Compensation Committee approved a 2011 cash bonus for Mr. Wheeler in the amount of \$29,231 for partial achievement of the Company s 2011 performance goals. Specifically, the Board determined that the Company had achieved certain of its 2011 performance goals during the fiscal year 2011 by maintaining Nasdaq listing requirements, meeting Company budget goals and by achieving certain product development goals, and had engaged in substantial efforts towards achieving the goal to advance the Company s Gencaro atrial fibrillation regulatory approval process. However, due to the Company s limited financial resources, the Board concluded that the Company would pay cash bonuses for partial achievement of the 2011 performance goals during the 2012 fiscal year upon the achievement of the AF Milestone. Because the AF Milestone was not achieved in 2012, Mr. Wheeler s deferred 2011 cash bonus was not paid and will not be rolled over. No bonuses were paid to Mr. Wheeler in 2012 as a measure to preserve the Company s available capital.

If the Company terminates Mr. Wheeler s employment without cause, or if Mr. Wheeler terminates his employment with good reason (as these terms are defined in his employment agreement), the Company has agreed to pay Mr. Wheeler a severance payment equivalent to (i) 6 months of his base salary (if such termination occurs on the same day as or within thirteen 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 Mr. Wheeler s Employee Intellectual Property, Confidentiality and Non-Compete Agreement for such additional period. The severance payment is conditioned on the execution by Mr. Wheeler of a legal release in a form acceptable to the Company. A termination for cause includes 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 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 the employment agreement or the Employee Intellectual Property, Confidentiality and Non-Compete Agreement, or any other agreement, with the Company. Good reason includes a relocation of 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. Wheeler s job responsibilities.

On June 13, 2013, the Board, upon the recommendation of the Compensation Committee, approved a cash bonus of \$60,000 for Mr. Wheeler, which was paid on June 28, 2013. The Board also approved, upon the recommendation of the Compensation Committee, a 2013 base salary of \$265,000 for Mr. Wheeler. The Board, upon the recommendation of the Committee, determined the bonus is to be paid to Mr. Wheeler in recognition of his past efforts and increased his salary to the level that was in place prior to the Mr. Wheeler s voluntary salary reduction which was implemented to save the Company s available capital, plus an additional \$43,550. Mr. Wheeler s new base salary became effective on June 24, 2013. The Board, upon the recommendation of the Committee, also approved the grant of a severance package for Mr. Wheeler which would require the Company to make severance payments, in an amount equal to 6 months of his base salary, to Mr. Wheeler in the event his employment is terminated under certain situations, as summarized above.

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. The Board of Directors approved a 2011 base salary for Mr. Ozeroff of \$266,770 and a 2012 base salary of \$240,093 as a measure to preserve the Company s available capital.

On March 26, 2012, the Compensation Committee approved a 2011 cash bonus for Mr. Ozeroff in the amount of \$35,214 for partial achievement of the Company s 2011 performance goals. Specifically, the Board determined that the Company had achieved certain of its 2011 performance goals during the fiscal year 2011 by maintaining Nasdaq listing requirements, meeting Company budget goals and by achieving certain product development goals, and had engaged in substantial efforts towards achieving the goal to advance the Company s Gencaro atrial fibrillation regulatory approval process. However, due to the Company s limited financial resources, the Board concluded that the Company would pay cash bonuses for partial achievement of the 2011 performance goals during the 2012 fiscal year upon the achievement of the AF Milestone. No bonuses were paid to Mr. Ozeroff in 2012 as a measure to preserve the Company s available capital.

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) 6 months of his base salary (if such termination occurs on the same day as or within thirteen 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 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 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 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 the employment agreement or the Employee Intellectual Property, Confidentiality and Non-Compete Agreement, or any other agreement, with the Company. Good reason includes a relocation of 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.

On June 13, 2013, the Board, upon the recommendation of the Compensation Committee, approved a cash bonus of \$35,000 for Mr. Ozeroff, which was paid on June 28, 2013. The Board also approved, upon the recommendation of the Compensation Committee, a 2013 base salary of \$266,770 for Mr. Ozeroff. The Board, upon the recommendation of the Committee, determined the bonus is to be paid to Mr. Ozeroff in recognition of his past efforts and increased his salary to the level that was in place prior to the Mr. Ozeroff s voluntary salary reductions which was implemented to save the Company s available capital. Mr. Ozeroff s new base salary became effective on June 24, 2013. The Board, upon the recommendation of the Committee, also approved the grant of a severance package for Mr. Ozeroff which would require the Company to make severance payments, in an amount equal to 6 months of his base salary, to Mr. Ozeroff in the event his employment is terminated under certain situations, as summarized above.

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.

For incentive bonuses tied to 2012 performance, the Compensation Committee and Board of Directors approved a similar bonus structure as they approved for 2011. For 2012 performance, the Compensation Committee of the Board of Directors set a potential bonus target of 50% of base salary for Dr. Bristow and 30% of base salary for Mr. Wheeler and Mr. Ozeroff. For incentive bonuses tied to ARCA s 2012 performance, the Compensation Committee approved a set of weighted goals, which the Board of Directors of ARCA believed were attainable with a very high level of executive performance and would be challenging to achieve. These goals included:

| obtaining funding for the atrial fibrillation clinical trial; |
|--|
| completing the planning and regulatory process for the atrial fibrillation clinical trial; |
| obtaining government or partner support for another clinical study; |
| complying with securities laws and stock exchange listing requirements applicable to public companies; |
| developing additional product candidates; |

The Compensation Committee and Board of Directors reviewed the 2012 corporate goals described above and determined that they had not sufficiently been achieved and therefore no bonuses were paid.

The Compensation Committee and Board of Directors have not approved a bonus structure or goals for 2013.

Equity Incentive Compensation

The option awards reported in the table above were granted to the Executives in 2011. Each of the option awards were priced at \$13.44, the market closing price on the date of grant, after adjusting for the 1 for 6 stock split completed by ARCA on March 4, 2013. These awards vest in monthly installments through May 20, 2014 and have an acceleration provision in the event of a Change of Control of the Company. Upon a Change in Control of the Company, the vesting of these option grants accelerates as follows:

- a) Fifty percent (50%) of the unvested option shares 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 s involuntary termination, whichever occurs first, the remaining unvested option shares shall become fully vested and exercisable.

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, 2012 for all of our equity compensation plans:

| | No. of Securities to be Issued Upon Exercise of Outstanding | A Exerc | eighted verage ise Price of standing | No. of Securities Remaining Available for Future Issuance Under Equity Compensation Plans Excluding Securities Reflected in |
|--|---|------------|---|---|
| | Options (a) | 0 | options (b) | Column(a) (c) |
| Equity compensation plans approved by security holders | 144,019 | \$ | 18.28 | 80,255 |
| Total | 144,019 | \$ | 18.28 | 80,255 |

A description of the equity incentive plans we maintain is set forth in Note 9 to the Company s consolidated financial statements included in our annual report on Form 10-K for the year ended December 31, 2012 and filed with the SEC on March 21, 2013. For the avoidance of doubt, the above table does not include any securities which would be issuable pursuant to the Company s 2013 Equity Incentive Plan, which is being submitted to the stockholders of the Company for approval as set forth in Proposal 3 above.

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. 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 Company s compensation committee assesses and monitors whether any of ARCA s compensation policies and programs has the potential to encourage excessive risk-taking.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END.

The following table shows for the fiscal year ended December 31, 2012, certain information regarding outstanding equity awards at fiscal year end for the Named Executive Officers.

OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2012

A description of the equity incentive plans we maintain is set forth in Note 9 to the Company s consolidated financial statements included in our annual report on Form 10-K for the year ended December 31, 2012 and filed with the SEC on March 21, 2013.

| Name | Number of Securities Underlying Unexercised Options (#) Exercisable | Option And Number of Securities Underlying Unexercised Options (#) Unexercisable | Option Exercise Price (\$) | Option Expiration Date |
|--|---|--|----------------------------|------------------------------|
| Michael R. Bristow, President and Chief Executive Officer | 4,087 | 87(1) | 33.42 | 1/23/2019 |
| | 2,518 | 148(6) | 17.82 | 2/18/2020 |
| | 2,638 | 2,362(7) | 13.44 | 5/20/2021 |
| Patrick Wheeler, Chief Financial Officer | 835 | (5) | 5.40 | 8/3/2016 |
| | 278 | (4) | 10.80 | 5/3/2017 |
| | 4,035 | (3) | 11.16 | 2/12/2018 |
| | 2,916 | 417(2) | 17.40 | 6/25/2019 |
| | 953 | 21(1) | 33.42 | 1/23/2019 |
| | 1,007 | 59(6) | 17.82 | 2/18/2020 |
| | 1,759 | 1,574(7) | 13.44 | 5/20/2021 |
| Christopher Ozeroff, Senior Vice President and General Counsel | 1,007 | 59(6) | 17.82 | 2/18/2020 |
| | 1,759 | 1,574(7) | 13.44 | 5/20/2021 |

- (1) Options vest in monthly installments through January 23, 2013.
- (2) Options vest in monthly installments through June 25, 2013.
- (3) Options vest in quarterly installments through February 12, 2012.
- (4) Options vest in quarterly installments through May 3, 2011.
- (5) Options vest in quarterly installments through July 31, 2010.
- (6) Options vest in monthly installments through February 18, 2013.
- (7) Options vest in monthly installments through May 20, 2014.

For the avoidance of doubt, the above table does not include any securities which would be issuable pursuant to the Company s 2013 Equity Incentive Plan, which is being submitted to the stockholders of the Company for approval as set forth in Proposal 3 above.

DIRECTOR COMPENSATION

The following table shows for the fiscal year ended December 31, 2012 certain information with respect to the compensation of all non-employee directors of the Company:

DIRECTOR COMPENSATION FOR FISCAL 2012 (1)

| | Fees Earned or Paid in Cash (\$) | Stock Awards (\$) | Non-Equity Incentive Plan Compensation (\$) | Nonqualified Deferred Compensation Earnings (\$) | All Other Compensation (\$) | Option Awards (\$) | Total (\$) |
|---------------------------------|--|-------------------------|---|--|-----------------------------------|--------------------------|------------|
| Jean-Francois Formela, M.D. (2) | 17,500 | | | | | 5,457 | 22,957 |
| Lind Grais, M.D. (3) | 30,000 | | | | | 5,457 | 35,457 |
| Burton E. Sobel, M.D. (4) | 22,500 | | | | | 5,457 | 27,957 |
| John L. Zabriskie, Ph.D. (5) | 26,250 | | | | | 5,457 | 31,707 |
| Richard B. Brewer (6) | 22,500 | | | | | 5,457 | 27,957 |

- (1) See Summary Compensation Table for disclosure related to Dr. Bristow
- (2) Only July 26, 2013 Dr. Formela resigned from the Company s Board of Directors. The aggregate number of options awards outstanding at December 31, 2012 for Dr. Formela was 3,026
- (3) The aggregate number of options awards outstanding at December 31, 2012 for Dr. Grais was 2,999
- (4) On May 2, 2013 Dr. Sobel passed away. The aggregate number of options awards outstanding at December 31, 2012 for Dr. Sobel was 3,477 and his estate has until May 2, 2014 to exercise the options
- (5) The aggregate number of options awards outstanding at December 31, 2012 for Dr. Zabriskie was 6,282
- (6) On August 15, 2012 Mr. Brewer passed away. The aggregate number of options awards outstanding at December 31, 2012 for Mr. Brewer was 32,765 and his estate has until August 15, 2013 to exercise the options

In 2012, non-employee directors were compensated for their service on the Company s Board, as follows:

Each non-employee director was entitled to an annual retainer fee of \$30,000;

As additional compensation for their services, each non-employee director, upon joining the Board, was entitled to an initial grant of options to purchase 1,250 shares of the Company s common stock under the ARCA biopharma, Inc. 2004 Equity Incentive Plan (the Option Plan) and an annual grant of an additional 583 shares of the Company s common stock under the Option Plan;

The Audit Committee chair was entitled to receive an additional \$15,000 for service as the Audit Committee chair;

If a non-employee director served as the chair of any other Committee, that director was entitled to receive an additional \$10,000 per chair and the Chairman of the Board was entitled to receive an additional \$15,000;

Each of the members of the Audit Committee, other than the chair, was entitled to receive an additional \$5,000 for his or her service on the Audit Committee;

For membership on any other Committee, except for the chair of such Committee, a non-employee director was entitled to receive an additional \$5,000; and

The director designated as the Lead Independent Director was entitled to an annual fee of \$10,000.

At the June 21, 2012 meeting of the Board of Directors, the Board agreed to forgo future Board payments for an indeterminate time as a measure to preserve the Company s available capital. At the June 13, 2013 meeting of the Board of Directors, the Board decided to reinstate payments for non-employee Directors starting in Q3 2013 at the compensation levels in place in 2012. Only July 26, 2013, Drs. Grais and Zabriskie each were granted options to purchase 583 shares of the Company s common stock under the Option Plan, in consideration of their service on the Board during 2013, and Dr. Woosley was granted options to purchase 1,250 shares of the

Company s common stock under the Option Plan, in consideration of Dr. Woosley joining the Board as a new member. The purchase price for these options was \$1.40, which was equal to the closing price of the Company s common stock on the date of the grant on the Nasdaq Global Market (Nasdaq).

On February 10, 2012, Mr. Brewer and Drs. Formela, Sobel, Zabriskie and Grais each were granted options to purchase 1,166 shares of the Company s common stock under the Option Plan, 583 of which were compensation for service on the Board in 2011 and 583 of which were compensation for service rendered and to be rendered on the Board in 2012. The purchase price for these options was \$6.00, which was equal to the closing price of the Company s common stock on the date of the grant on Nasdaq.

If the Company s 2013 Equity Incentive Plan is adopted, it is anticipated that non-employee directors would be entitled to receive the same number of options under the 2013 Equity Incentive as non-employee directors were entitled to receive under the Option Plan in 2012, as described above.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Transactions with the Company s President and Chief Executive Officer

The Company has entered into unrestricted research grants with the University of Colorado Foundation to support its President and Chief Executive Officer's, Dr. Bristow s, 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, 2012 and 2011 was \$63,000 and \$155,000 respectively, and \$1.5 million from Inception through December 31, 2012. On July 19, 2013, the Audit Committee approved an unrestricted research grant commitment of approximately \$341,000 for the 2013/2014 academic year to the University of Colorado Foundation along with an additional unrestricted research grant of approximately \$53,000 in support of research activities and efforts performed during the 2012/2013 academic year.

Dr. Bristow was also an investor in connection with the Company s May 2013 public offering of its Series A Convertible Preferred Stock and warrants to purchase Common Stock, in which he purchased 781 shares of Series A Convertible Preferred Stock and accompanying warrants for a purchase price equal to \$160 per share.

Certain Transactions With or Involving Related Persons

The following is a summary of transactions since January 1, 2012 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 2011 and 2012, 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 .

The Private Placements

The following tables summarize private placement purchases of our common stock and warrants by 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 and their affiliated entities.

| October 2012 PIPES Offering | Name of Purchaser | Dollars Invested | Post-Split Shares | Post-Split Warrant Shares |
|------------------------------|--|---------------------|----------------------|------------------------------|
| 5% shareholder and Affiliate | Atlas Venture Fund VII, L.P. | \$ 125,000.00 | 52,896 | 39,672 |
| | Jean-François Formela, Director | | | |
| 5% shareholder and Affiliate | Investocor Trust | \$ 125,000.00 | 52,896 | 39,672 |
| | Dr. Michael Bristow, M.D., Ph.D., CEO and Director | | | |
| Affiliate | Lansing Brown Investments, LLC | \$ 50,000.00 | 21,159 | 15,868 |
| | John L. Zabriskie, Ph.D. Director | | | |
| Affiliate | Christopher D. Ozeroff | \$ 25,000.00 | 10,579 | 7,934 |

On October 22, 2012, we entered into a subscription agreement with certain investors named in the table above pursuant to which we agreed to sell 137,530 units, with each unit consisting of one share of our common stock and a warrant to purchase 0.75 shares of our common stock. The warrants have an exercise price of approximately \$1.80, became exercisable on October 25, 2012 and expire five years after becoming exercisable, unless earlier terminated. On October 25, 2012, we closed the private placement and received gross proceeds of approximately \$325,000, before deduction of offering expenses. In connection with the closing of the private placement on October 25, 2012, we also entered into a registration rights agreement with the investors, pursuant to which we agreed to file a registration statement with the Securities Exchange Commission to register for resale the shares issued in the private placement and the shares issuable upon exercise of the warrants issued in the private placement. We filed such registration statement on Form S-3 (File No.333-186584) (the PIPE Registration Statement) on February 11, 2013, which became effective on February 14, 2013.

| | | Dollars | Post-Split | Post-Split Warrant | |
|------------------------------|---|---------------|------------|-----------------------|--|
| December 2012 PIPES Offering | Name of Purchaser | Invested | Shares | Shares | |
| 5% shareholder and Affiliate | Investocor Trust Dr. Michael Bristow, M.D., | \$ 250,000.00 | 86,186 | 64,639 | |
| | Ph.D., CEO and Director | | | | |

On December 18, 2012, we entered into a subscription agreement with an investor named in the table above pursuant to which we agreed to sell 86,186 units, with each unit consisting of one share of our common stock and a warrant to purchase 0.75 shares of our common stock. The warrants have an exercise price of approximately \$2.34, became exercisable on December 20, 2012 and expire five years after becoming exercisable, unless earlier terminated. On December 20, 2012, we closed the private placement and received gross proceeds of approximately \$250,000, before deduction of offering expenses. In connection with the closing of the private placement, on December 20, 2012, we also entered into a registration rights agreement with the investor, pursuant to which we agreed to file a registration statement with the Securities Exchange Commission to register for resale the shares issued in the private placement and the shares issuable upon exercise of the warrants issued in the private placement. We filed such registration statement, the PIPE Registration Statement, on February 11, 2013, which became effective on February 14, 2013.

Registered Direct Offering

The following tables summarize registered direct offering purchases of our common stock and warrants by 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 and their affiliated entities, as of the closing of such Registered Direct Offering.

August 2012 Registered Direct

| August 2012 Registered Direct | | | | Post-Split |
|-------------------------------|--|---------------------|----------------------|-------------------|
| Offering | Name of Purchaser | Dollars Invested | Post-Split Shares | Warrant Shares |
| 5% shareholder | Sabby Healthcare Volatility Master Fund, Ltd. | \$ 333,333.76 | 142,086 | 106,564 |
| 5% shareholder | Sabby Volatility Warrant Master Fund, Ltd. | \$ 166,666.10 | 71,042 | 53,282 |

On August 2, 2012, we sold approximately \$953,000 of ARCA s common stock and warrants for common stock in a Registered Direct Offering under the Company s registration statement on Form S-3 (File No.333-172686) (the Registration Statement) in which we issued 406,099 shares of common stock and warrants to purchase 304,575 shares of common stock. The net proceeds, after deducting placement agent fees and other offering expenses payable by us, was approximately \$741,000, and these proceeds are being used solely for general working capital purposes. Each unit, consisting of a share of common stock and a warrant to purchase 0.75 shares of common stock, was sold at a purchase price of \$2.35 per unit, which was a 15 percent discount to the consolidated price of the stock and warrants, based on the closing bid price of \$2.76 as reported on the NSADAQ Capital Market on August 2, 2012. The warrants become exercisable six months after issuance, expire 6 years thereafter, and have an exercise price of \$2.76 per share, equal to 100% of the closing bid price of ARCA s common stock on the Nasdaq Capital Market on August 2, 2012. The Registered Direct Offering was effected as a takedown off the Registration Statement, which became effective on April 4, 2011, pursuant to a prospectus supplement filed with the SEC on August 3, 2012.

Policies and Procedures for Related Party Transactions

In January 2009, in conjunction with our merger with Nuvelo, Inc., our board of directors adopted an audit committee charter that provides that the audit committee will review and approve all related party transactions. Accordingly, all related party transactions are reviewed and approved by our audit committee, including the private placements described above. 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.

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., 8001 Arista Place, Suite 430, Broomfield, CO 80021 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

August 1, 2013

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, 2012, as amended, is available without charge upon written request to: Corporate Secretary, ARCA biopharma, Inc., 8001 Arista Place, Suite 430, Broomfield, Colorado 80021.