

**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

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 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant To §240.14a-12

**ARROWHEAD RESEARCH CORPORATION**

(Name of Registrant as Specified in Its Charter)

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

Payment of filing fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

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

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

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

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

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

(1) Amount Previously Paid:

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

(3) Filing party:

(4) Date filed:



**ARROWHEAD RESEARCH CORPORATION**  
225 SOUTH LAKE AVENUE, SUITE 1050  
PASADENA, CALIFORNIA 91101

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**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS  
TO BE HELD ON THURSDAY, MARCH 21, 2013**

TO THE STOCKHOLDERS OF ARROWHEAD RESEARCH CORPORATION:

NOTICE IS HEREBY GIVEN that the 2013 Annual Meeting of Stockholders of Arrowhead Research Corporation, a Delaware corporation (the “Company”), will be held on March 21, 2013, at 10:00 a.m., local time, at the Sheraton Pasadena, 303 E. Cordova Street, Pasadena, California 91101, for the following purposes:

1. To elect six directors to serve as members of the Company’s Board of Directors until the next Annual Meeting or until their successors are elected;
2. To approve a proposed amendment to the Company’s 2004 Equity Incentive Plan (the “2004 Incentive Plan”) to increase the number of shares of common stock reserved for issuance under the 2004 Incentive Plan from 2,000,000 shares to 3,000,000 shares;
3. To conduct an advisory vote on executive compensation;
4. To conduct an advisory vote on the frequency of future advisory votes on executive compensation; and
5. To ratify the selection of Rose, Snyder & Jacobs as independent auditors of the Company for the fiscal year ending September 30, 2013;

The foregoing items of business are more fully described in the Proxy Statement accompanying this Notice. Proposal 1 relates solely to the election of the six directors nominated by the Board of Directors and does not include any other matters relating to the election of directors, including, without limitation, the election of directors nominated by any stockholder of the Company.

Only stockholders of record at the close of business on January 31, 2013 are entitled to notice of and to vote at the Annual Meeting.

All stockholders of record are cordially invited to attend the Annual Meeting in person. However, to ensure your representation at the meeting, you are urged to vote via the Internet or telephone as instructed in the Notice Regarding the Internet Availability of Proxy Materials, or to mark, sign, date and return the proxy card as promptly as possible in the postage-prepaid envelope enclosed for that purpose. Any stockholder of record attending the Annual Meeting may vote in person even if such stockholder has previously returned a proxy.

/s/Jane Davidson

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Jane Davidson  
Secretary

Pasadena, California  
February 4, 2013

**Your vote is important, whether or not you expect to attend the Annual Meeting of Stockholders. Stockholders of record are urged to vote via the Internet or telephone as instructed, or if you are voting by mail, to mark, sign and date and promptly return the proxy in the stamped return envelope provided. Beneficial holders are urged to vote via telephone or the Internet. Voting promptly will help avoid the additional expense of further solicitation to assure a quorum at the meeting.**

**Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting To Be Held on Thursday, March 21, 2013**

You may access the following proxy materials at [www.edocumentview.com/ARWR](http://www.edocumentview.com/ARWR)

Notice of the 2013 Annual Meeting of Stockholders;  
Company’s 2013 Proxy Statement;  
Company’s Annual Report on Form 10-K for the year ended September 30, 2012; and  
Form of Proxy Card

**ARROWHEAD RESEARCH CORPORATION**  
225 South Lake Avenue, Suite 1050  
Pasadena, California 91101  
(626) 304-3400

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**PROXY STATEMENT FOR ANNUAL MEETING OF STOCKHOLDERS  
TO BE HELD ON THURSDAY, MARCH 21, 2013**

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**GENERAL INFORMATION CONCERNING SOLICITATION AND VOTING**

The enclosed Proxy is solicited on behalf of Arrowhead Research Corporation (the “**Company**” or “**Arrowhead**”) for use at the 2013 Annual Meeting of Stockholders (the “**Annual Meeting**”) to be held on March 21, 2013 at 10:00 a.m., local time, and at any adjournment(s) thereof, for the purposes set forth herein and in the accompanying Notice of Annual Meeting of Stockholders (the “**Notice**”). The Annual Meeting will be held at the Sheraton Pasadena, 303 E. Cordova Street, Pasadena, CA 91101.

The Company anticipates that these proxy solicitation materials will first be mailed on or about February 11, 2013 to all stockholders entitled to vote at the Annual Meeting.

**Record Date**

Only holders of record of voting stock at the close of business on January 31, 2013 (the “**Record Date**”) are entitled to notice of the Annual Meeting and to vote at the Annual Meeting. On that date, the Company had outstanding 17,115,549 shares of voting common stock (“**Common Stock**”).

**Revocability of Proxies**

Any proxy given by a stockholder of record pursuant to this solicitation may be revoked by the person giving it at any time before its use by delivering to the Secretary of the Company, at or before the taking of the vote at the Annual Meeting, a written notice of revocation or a duly executed proxy bearing a later date or by attending the Annual Meeting and voting in person. Stockholders may also revoke their proxy by entering a new vote over the Internet or by telephone.

**Voting and Solicitation**

Each share of the Company’s Common Stock is entitled to one vote on all matters presented at the Annual Meeting. Stockholders do not have the right to cumulate their votes in the election of directors. Shares of Common Stock represented by properly executed proxies will, unless such proxies have been previously revoked, be voted in accordance with the instructions indicated thereon. In the absence of specific instructions to the contrary, properly executed proxies will be voted FOR all matters submitted to a vote of stockholders at the Annual Meeting pursuant to this proxy statement. No business other than that set forth in the accompanying Notice of Annual Meeting of Stockholders is expected to come before the Annual Meeting. Should any other matter requiring a vote of stockholders properly arise, the persons named in the enclosed form of proxy will vote such proxy in accordance with the recommendation of the Board of Directors (the “**Board**”).

If you will not be able to attend the Annual Meeting to vote in person, you may vote your shares via the Internet or by telephone or by mail as set forth in the Notice.

In addition to proxy solicitation by a proxy solicitor engaged by the Company, proxies may be solicited by certain of the directors, officers and employees of the Company, without additional compensation. The Company will bear the costs of solicitation. In addition, the Company expects to reimburse brokerage firms and other persons representing beneficial owners of shares for their expenses in forwarding solicitation materials to such beneficial owners.

If your shares are held in street name, the voting instruction form sent to you by your broker, bank or other nominee should indicate whether the institution has a process for beneficial holders to provide voting instructions over the Internet or by telephone. A number of banks and brokerage firms participate in a program that also permits stockholders whose shares are held in street name to direct their vote over the Internet or by telephone. If your bank or brokerage firm gives you this opportunity, the voting instructions from the bank or brokerage firm that accompany this proxy statement will tell you how to use the Internet or telephone to direct the vote of shares held in your account. If your voting instruction form does not include Internet or telephone information, please complete and return the voting instruction form in the self-addressed, postage-paid envelope provided by your broker. Stockholders who vote by proxy over the Internet or by telephone need not return a proxy card or voting instruction form by mail.

**Quorum; Abstentions; Broker Non-Votes**

The required quorum for the transaction of business at the Annual Meeting is a majority of the votes eligible to be cast by holders of shares of Common Stock issued and outstanding on the Record Date. Shares that are voted “FOR,” “AGAINST” or “ABSTAIN” on a matter are treated as being present at the meeting for purposes of establishing a quorum with respect to such matter. For certain proposals, brokers may not have discretionary authority to vote on a particular matter if they have not received specific instructions from the beneficial owner of the shares (“**broker non-votes**”). Shares subject to a broker non-vote are counted as present for the purpose of determining the presence or absence of a quorum for the transaction of business; the effect of abstentions and broker non-votes on the proposals presented herein is discussed below.

With regard to the election of directors, votes may be cast in favor of a director nominee or withheld. Because directors are elected by plurality, abstentions from voting and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome. If a quorum is present at the meeting, the nominees receiving the greatest number of votes, up to six (6) directors, will be elected.

With regard to all other proposals, the affirmative vote of a majority of the outstanding shares of common stock entitled to vote thereon and present in person or by proxy at the Annual Meeting is required for approval (the “**Required Vote**”). With regard to these proposals, abstentions will be counted in tabulations of the votes cast on each such proposal and will have the same effect as a vote against the proposal, whereas broker non-votes will be excluded from the vote and will have no effect on its outcome.

**Deadline for Receipt of Stockholder Proposals**

Any stockholder who meets the requirements of the proxy rules under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), who intends to present a proposal at the Company’s 2014 Annual Meeting of Stockholders must ensure that the proposal is received by the Corporate Secretary at Arrowhead Research Corporation, 225 South Lake Avenue, Suite 1050, Pasadena, CA 91101, not later than October 14, 2013, in order to be considered for inclusion in our proxy materials for that meeting. Proposals received after that date may be excluded from the Company’s proxy statement.

Additionally, our Bylaws provide for notice procedures to recommend a person for nomination as a director or to propose business to be considered by stockholders at a meeting. To be considered timely under these provisions, the stockholder’s notice must be received by the Corporate Secretary at our principal executive offices at the address set forth above between 90 and 120 days prior to the one-year anniversary of the date of the 2013 Annual Meeting; *provided, however*, that if the 2014 annual meeting date is advanced by more than 30 days before or delayed by more than 60 days after the anniversary date of the 2013 Annual Meeting, then stockholders must provide notice within time periods specified in our Bylaws. Our Bylaws also specify requirements as to the form and content of a stockholder’s notice.

**PROPOSAL ONE  
ELECTION OF DIRECTORS**

The Board has nominated the following six persons as directors to serve until the 2014 annual meeting and until their successors have been duly elected. Each of the nominees is currently a director of Arrowhead. Except as set forth in the biographical information below, none of the nominees is related by blood, marriage or adoption to any other nominee or any executive officer of the Company. The six nominees receiving the greatest numbers of votes at the Annual Meeting will be elected to the six director positions. Unless otherwise instructed, the proxy holders will vote the proxies received by them for the six nominees named below. If any nominee is unable or declines to serve as director at the time of the Annual Meeting, the proxies will be voted for any nominee who is designated by our present Board to fill the vacancy. The table below sets forth, with respect to each nominee for election, his age and current position with Arrowhead.

**Nominees for Election as Directors.** The Board unanimously adopted a resolution proposing the nominees set forth below for election as Directors of the Company for the next year.

**OUR BOARD UNANIMOUSLY RECOMMENDS A VOTE “FOR” EACH OF THE NOMINEES LISTED BELOW.**

<b>Name</b>	<b>Age</b>	<b>Position with Arrowhead</b>
Christopher Anzalone	43	Chief Executive Officer & President, Director
Edward W. Frykman*	76	Director
Charles P. McKenney*	74	Director
Mauro Ferrari**	53	Director
Douglass Given	60	Director
Michael S. Perry*	53	Director

\* Member of the Audit Committee, Compensation Committee and Nomination Committee.

\*\* Member of the Compensation Committee and Nomination Committee

**Dr. Christopher Anzalone** has been President, Chief Executive Officer and Director of the Company since December 1, 2007. In 2005, Dr. Anzalone formed and served as CEO of the Benet Group LLC, private equity firm focused on creating and building new nano-biotechnology companies from university-generated science. While at The Benet Group, Dr. Anzalone was founding CEO in two portfolio companies, Nanotope Inc., a tissue regeneration company, and Leonardo Biosystems Inc., a drug delivery company. Dr. Anzalone is CEO of Nanotope. Dr. Anzalone is a director of Arrowhead’s wholly-owned subsidiary, Arrowhead Madison Inc., majority-owned subsidiaries, Calando Pharmaceuticals, Inc., Ablaris Therapeutics, Inc., and Tego Biosciences Corporation and minority investments, Nanotope, Inc. and Leonardo Biosystems, Inc. Prior to his tenure at The Benet Group, from 1999 until 2003, he was a partner at the Washington, DC-based private equity firm Galway Partners, LLC, where he was in charge of sourcing, structuring, and building new business ventures and was founding CEO of NanoInk, Inc., a nanolithography company. Dr. Anzalone holds a Ph.D. in Biology from UCLA and a B.A. in Government from Lawrence University. We believe Dr. Anzalone’s qualifications to serve on the Board include his deep understanding of the business through his role as Chief Executive Officer; in addition Dr. Anzalone has extensive experience in nanotechnology, biotechnology, company-building and venture capital.

**Dr. Mauro Ferrari** has been a director of the Company since 2010. Dr. Ferrari is the President and CEO of The Methodist Hospital Research Institute (TMHRI). He is also the President of The Alliance for NanoHealth. Dr. Ferrari is a director of Arrowhead’s minority investment, Leonardo Biosystems, Inc. and a director of NanoMedical Systems, Inc., a Houston-based nanotechnology services company. Dr. Ferrari is an internationally recognized expert in nanomedicine and biomedical nanotechnology. Prior to assuming leadership of TMHRI, Dr. Ferrari was Professor and Chairman of The Department of NanoMedicine and Biomedical Engineering at The University of Texas Health Science Center at Houston, Professor of Experimental Therapeutics at the MD Anderson Cancer Center, Adjunct Professor of Bioengineering at Rice University, and Adjoint Professor of Biomedical Engineering at the University of Texas in Austin. His previous academic appointments include professorships at UC Berkeley and Ohio State University.

From 2003 to 2005, he served as Special Expert on Nanotechnology and Eminent Scholar at The National Cancer Institute, where he led in the development of the NCI’s program in Nanotechnology, which remains the largest program in NanoMedicine in the world. Dr. Ferrari has been serving as the Editor-in-Chief for “Biomedical Microdevices: BioMEMS and Biomedical Nanotechnology” since 1997. We believe Dr. Ferrari’s qualifications to

serve on the Board include his extensive training and experience in the fields of nanotechnology, biotechnology and biomedical applications. Dr. Ferrari has significant technical training, several academic appointments and numerous published articles and patents. Additionally, Dr. Ferrari has extensive experience in developmental stage organizations having founded several companies.

**Edward W. Frykman** has been a director of the Company since 2004. Mr. Frykman was an Account Executive with Crowell, Weedon & Co., a position he held from 1992 until 2008 when he retired. Before his service at Crowell, Weedon & Co., Mr. Frykman served as Senior Vice President of L.H. Friend & Co. Both Crowell Weedon & Co. and L.H. Friend & Co. are investment brokerage firms located in Southern California. In addition, Mr. Frykman was a Senior Account Executive with Shearson Lehman Hutton, where he served as the Manager of the Los Angeles Regional Retail Office of E. F. Hutton & Co. Mr. Frykman is also a director of Acacia Research Corporation, a publicly-held corporation based in Newport Beach, California. Mr. Frykman is a director of Arrowhead's majority-owned subsidiaries Calando Pharmaceuticals, Inc., Ablaris Therapeutics, Inc., and Tego Biosciences Corporation. We believe Mr. Frykman's qualifications to serve on the Board include his long tenure as a member of the Board which enabled Mr. Frykman to gain a deep understanding of the company's operations, strategy and finances. Mr. Frykman also has extensive experience in the fields of finance and public company oversight.

**Dr. Douglass Given** has been a director of the Company since November 2010. He is an Investment Partner at Bay City Capital and has been with the firm since October 2000. He was formerly Chief Executive Officer and a director of NeoRx, Corporate Sr. Vice President and Chief Technical Officer of Mallinckrodt, and Chief Executive Officer and a director of Progenitor and Mercator Genetics. He held positions as Vice President at Schering Plough Research Institute, Vice President at Monsanto/G.D. Searle Research Laboratories, and Medical Advisor at Lilly Research Laboratories. Dr. Given is the Chairman of VIA Pharmaceuticals, and Chairman of Vivaldi Biosciences. He is Chairman of the Visiting Committee to the Division of Biological Sciences and the Pritzker School of Medicine at the University of Chicago, a member of the Johns Hopkins Bloomberg School of Public Health Advisory Board, and a member of the Harvard School of Public Health AIDS Initiative International Advisory Council.

Dr. Given holds an M.D. with honors and a Ph.D. from the University of Chicago, and an MBA from the Wharton School, University of Pennsylvania. He was a fellow in Internal Medicine and Infectious Diseases at Harvard Medical School and Massachusetts General Hospital. We believe Dr. Given's qualifications to serve on the Board include his extensive experience in finance and business transactions, particularly investments in the life sciences industry as well as directorship roles in start-up biotechnology companies. Dr. Given also has significant leadership roles, including CEO and Senior Vice President, at several large pharmaceutical companies. Dr. Douglass Given is a brother of Dr. Bruce Given, our Chief Operating Officer.

**Charles P. McKenney** has been a director of the Company since April 2004. Mr. McKenney has maintained a government affairs law practice in Pasadena, California since 1989, representing businesses and organizations in their relations with state and local government regarding their obligations under state and local land use and trade practices laws. From 1973 through 1989, he served as Attorney for Corporate Government Affairs for Sears, Roebuck and Co., helping organize and carry out Sears's western state and local government relations programs. Mr. McKenney has served two terms on the Pasadena, California, City Council as well as on several city boards and committees, including three city Charter Reform Task Forces. Mr. McKenney is a director of Arrowhead's majority-owned subsidiaries Calando Pharmaceuticals, Inc., Ablaris Therapeutics, Inc., and Tego Biosciences Corporation. We believe Mr. McKenney's qualifications to serve on the Board include his long tenure as a member of the Board resulting in a deep understanding of the Company's operations, strategy and finances. Mr. McKenney also has extensive experience providing strategic legal and advisory services to developmental stage organizations.

**Dr. Michael S. Perry** has been a director of the Company since December 2011. Dr. Perry is Global Head, Cell Therapy at Novartis Pharma. Prior to his appointment at Novartis, Dr. Perry was a Venture Partner with Bay City Capital LLP from 2005 until November 2012 and President and Chief Medical Officer of Poniard Pharmaceuticals from 2010 to November 2012. He also currently serves as a member of the board of directors of AmpliPhi Biosciences Corporation. He was Chief Development Officer at VIA Pharmaceuticals, Inc., a publicly held drug development company, from April 2005 until May 2009. Prior thereto, he served as Chairman and Chief Executive Officer of Extropy Pharmaceuticals, Inc., a privately held pediatric specialty pharmaceutical company, from June 2003 to April 2005. From 2002 to 2003, Dr. Perry served as President and Chief Executive Officer of Pharsight Corporation, a publicly held software and consulting services firm. From 2000 to 2002, Dr. Perry served as Global

Head of Research and Development for Baxter BioScience. From 1997 to 2000, Dr. Perry was President and Chief Executive Officer of both SyStemix Inc. and Genetic Therapy Inc., two wholly owned subsidiaries of Novartis Corp. and from 1994 to 1997, he was Vice President of Regulatory Affairs for Novartis Pharma (previously Sandoz Pharmaceuticals). Prior to 1994, Dr. Perry held various management positions with Syntex Corporation, Schering-Plough Corporation and BioResearch Laboratories, Inc. Dr. Perry holds a Doctor of Veterinary Medicine, a Ph.D. in Biomedical Pharmacology and a B.Sc. in Physics from the University of Guelph, Ontario, Canada. He is a graduate of the International Management Program at Harvard Business School. We believe Dr. Perry's qualifications to serve on the board include his medical expertise and his extensive experience in preclinical and clinical drug development, including executive level leadership roles in several publicly held biotech companies.

### **Corporate Governance Policies and Practices**

The following is a summary of our corporate governance policies and practices:

- The positions of Chairman of the Board and Chief Executive Officer are separated, which allows our Chief Executive Officer to focus on our day-to-day business, while allowing the Chairman of the Board to lead the Board in its fundamental role of providing advice to and oversight of management. While our Bylaws do not require that our Chairman and Chief Executive Officer positions be separate, our Board believes that having separate positions is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance.
- A majority of the members of the Board are independent directors, as defined by the NASDAQ Marketplace Rules. The Board has determined that all of the Company's directors are independent, except Dr. Anzalone, due to his employment relationship with the Company, and Dr. Given, who is the brother of Bruce Given, the Company's Chief Operating Officer. Independent directors do not receive consulting or other fees from the Company, other than Board and Committee compensation.
- The Board has overall responsibility for the oversight of the Company's risk management process, which is designed to support the achievement of organizational objectives, including strategic objectives, to improve long-term organizational performance and enhance stockholder value. Risk management includes not only understanding company-specific risks and the steps management implements to manage those risks, but also what level of risk is acceptable and appropriate for the Company. Management is responsible for establishing our business strategy, identifying and assessing the related risks and implementing appropriate risk management practices. The Board regularly reviews our business strategy and management's assessment of the related risk, and discusses with management the appropriate level of risk for the Company.
- All of the Company's employees, officers and directors are subject to the Company's Code of Business Conduct and Ethics Policy, which is available on the Company's website at [www.arrowheadresearch.com](http://www.arrowheadresearch.com). The ethics policy meets the requirements of the NASDAQ Marketplace Rules, as well as the code of ethics requirements of the SEC.
- The Audit, Compensation and Nomination Committees consist entirely of independent directors.
- The independent directors meet separately in executive session on a regular basis to discuss matters relating to the Company and the Board, without members of the management team present.
- The Board reviews at least annually the Company's business initiatives, capital projects and budget matters.
- The Audit Committee reviews and approves all related-party transactions or, if the size and nature of the transaction warrants, a special committee of non-related Board members is formed to negotiate and approve the transaction.

## Stockholder Communications with Directors

Stockholders who wish to communicate with the Board or any individual director can write to: Jane Davidson, Corporate Secretary, Arrowhead Research Corporation, 225 South Lake Avenue, Suite 1050, Pasadena, CA 91101. Your letter should indicate that you are an Arrowhead stockholder. Depending on the subject matter, management will:

- Forward the communication to the director or directors to whom it is addressed;
- Forward the communication to the Chairman of the Board, if addressed to the board of directors; or
- If not addressed to any director or directors, attempt to handle the inquiry directly (for example, requests for information or stock-related matters).

## Board Meetings and Committees

The Board held a total of thirteen meetings during the fiscal year ended September 30, 2012. The Board has three standing committees: an Audit Committee, a Compensation Committee, and a Nomination Committee.

The functions of the Audit Committee are to select independent public accountants, to review the scope and results of the year-end audit with management and the independent auditors, to review the Company's accounting principles and its system of internal accounting controls, to review the Company's annual and quarterly reports before filing with the Securities and Exchange Commission, and to review any related-party transactions. The Audit Committee met four times during fiscal 2012. The current members of the Audit Committee are Edward W. Frykman, Chairman, Charles P. McKenney, and Michael S. Perry. The Board has determined that all members of the Audit Committee are independent directors under the Rules of the SEC and the listing standards of the NASDAQ Marketplace Rules. The Board has determined that Mr. Frykman is an "audit committee financial expert" in accordance with the applicable regulations. The Audit Committee Charter is available on the Company's website at [www.arrowheadresearch.com](http://www.arrowheadresearch.com).

The functions of the Compensation Committee are to review the goals and achievements of the Company and the Chief Executive Officer ("CEO") for the prior year and approve the goals of the Company and the CEO for the next year, to review and approve salaries, bonuses and other benefits payable to the Company's executive officers and to administer the Company's 2004 Equity Incentive Plan (the "**2004 Incentive Plan**"). The Compensation Committee is specifically responsible for determining the compensation of the CEO and the other executive officers. The Compensation Committee reviews compensation recommendations made by the CEO for other senior executives of the Company at least annually. The Compensation Committee did not retain the services of a compensation consultant in fiscal 2012, but may do so in the future. The Compensation Committee met four times during fiscal 2012. The current members of the Compensation Committee are Michael S. Perry, Chairman, Edward Frykman, Charles P. McKenney, and Mauro Ferrari. The Board has determined that all members of the Compensation Committee are independent directors under the listing rules of the NASDAQ Marketplace Rules. The Compensation Committee's charter is available on the Company's website at [www.arrowheadresearch.com](http://www.arrowheadresearch.com). The Committee has not delegated any of its responsibilities or authorities granted under its charter.

The Nomination Committee is responsible for proposing a slate of directors for election by the stockholders at each Annual Stockholders Meeting and for proposing candidates to fill any vacancies. The Nomination Committee met once during fiscal 2012. The current members of the Nomination Committee are Michael S. Perry, Chairman, Edward Frykman, Charles P. McKenney and Mauro Ferrari. The Nomination Committee's charter is available on the Company's website at [www.arrowheadresearch.com](http://www.arrowheadresearch.com). The Nomination Committee manages the process for evaluating current Board members at the time they are considered for re-nomination. After considering the appropriate skills and characteristics required on the Board, the current makeup of the Board, the results of the evaluations, and the wishes of the Board members to be re-nominated, the Nomination Committee recommends to the Board whether those individuals should be re-nominated.

On at least an annual basis, the Nomination Committee reviews with the Board whether it believes the Board would benefit from adding new members and, if so, the appropriate skills and characteristics required for any new members. If the Board determines that a new member would be beneficial, the Nomination Committee solicits and receives recommendations for candidates and manages the process for evaluating candidates. All potential candidates, regardless of their source, are reviewed under the same process. The Nomination Committee (or its chairman) screens the available information about the potential candidate(s). Based on the results of the initial screening, interviews with viable candidates are scheduled with Nomination Committee members, other members of the Board and senior members of management. Upon completion of these interviews and other due diligence, the Nomination Committee may recommend to the Board the election or nomination of a candidate.

Candidates for independent Board member positions have historically been identified through recommendations from directors or others associated with the Company. Arrowhead stockholders may also recommend candidates by sending the candidate's name and resume to the Nomination Committee pursuant to the

procedures, set forth above, for communication with the Board. As described above, our Bylaws also provide for separate notice procedures to recommend a person for nomination as a director to be considered by stockholders at a meeting, including requirements as to the timing, form and content of a stockholder's notice.

The Nomination Committee has no predefined minimum criteria for selecting Board nominees, although it believes that all independent directors should share qualities such as independence, business experience at the corporate level, relevant non-competitive experience, and strong communication and analytical skills. In any given search, the Nomination Committee may also define particular characteristics for candidates to balance the overall skills and characteristics of the Board and the needs of the Company. However, during any search, the Nomination Committee reserves the right to modify its stated search criteria for exceptional candidates. While the Board does not have a policy with regard to consideration of diversity for selecting candidates, the Nomination Committee may consider diversity, including diversity with respect to experience, skill set, age, areas of expertise and professional background, as well as race, gender, national origin and any other criteria deemed appropriate by the Nomination Committee.

No incumbent director attended fewer than 75% of the aggregate of (i) the total number of meetings of the Board held during fiscal 2012, and (ii) the total number of meetings held by all committees of the Board during fiscal 2012 on which such person served.

In addition, all directors attended the 2012 Annual Meeting of Stockholders. It is the Company's policy to encourage, but not require, that all directors attend our annual stockholder meetings.

## FISCAL 2012 DIRECTOR COMPENSATION

### Director Compensation

Directors who are also employees of the Company receive no separate compensation from the Company for their service as members of the Board. Dr. Anzalone's compensation is set forth below in the Summary Compensation Table. Non-employee directors currently receive a cash retainer of \$37,500 per year, paid quarterly. Additionally, non-employee directors received periodic grants of stock options based on recommendation of the Compensation Committee. Based on the policies of their current employers, Drs. Ferrari and Given have declined to accept cash compensation to date and Dr. Ferrari has declined to accept equity compensation to date. Drs. Ferrari and Given may elect to receive compensation in the future. The following table sets forth the total compensation paid to our directors in fiscal 2012.

<u>Name</u>	<u>Fee Earned or Paid in Cash (\$ (1))</u>	<u>Option Awards (\$ (2) (3))</u>	<u>Total (\$)</u>
Douglass Given	\$ —	\$ 130,210	\$ 130,210
Edward Frykman	\$ 33,125	\$ 74,500	\$ 74,500
Charles McKenney	\$ 33,125	\$ 74,500	\$ 74,500
Michael S. Perry	\$ 28,125	\$ 158,300	\$ 186,425
Mauro Ferrari	\$ —	\$ —	\$ —

- (1) Beginning in February 2012, quarterly compensation to non-employee directors was increased from \$5,000 to \$9,375. There are no additional payments for being a member of a committee. Dr. Ferrari and Dr. Given have declined to receive cash compensation at this time.
- (2) This column represents the total grant date fair value, computed in accordance with ASC 718, of stock options granted during fiscal year 2012. The assumptions used to calculate the value of option awards are set forth under Note 9 to the Consolidated Financial Statements included with the Company's Annual Report on Form 10-K.
- (3) Option grants to non-employee directors generally vest one year from date of grant. At September 30, 2012, Mr. Frykman had outstanding option grants to purchase 55,500 shares at prices ranging from \$2.62 to \$20.20; Mr. McKenney had outstanding option grants to purchase 53,000 shares at prices ranging from \$2.62 to \$20.20; Mr. Perry had outstanding option grants to purchase 50,000 shares at prices ranging from \$2.62 to \$5.19; Dr. Given had outstanding option grants to purchase 40,000 shares at prices ranging from \$2.62 to \$5.19; and Dr. Ferrari had outstanding option grants to purchase 24,843 shares at prices ranging from \$9.60 to \$28.70.

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**Vote Required; Recommendation of the Board**

The six nominees receiving the greatest numbers of votes at the meeting, assuming a quorum is present, will be elected to the six director positions to serve until the next annual meeting of stockholders or until their successors have been duly elected and qualified. Because directors are elected by plurality, abstentions from voting and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

**THE BOARD UNANIMOUSLY RECOMMENDS A VOTE “FOR” EACH OF THE NOMINEES  
FOR DIRECTOR IN PROPOSAL ONE.**

**PROPOSAL TWO**  
**AMENDMENT TO THE COMPANY'S 2004 EQUITY INCENTIVE PLAN**  
**INCREASING THE NUMBER OF SHARES RESERVED FOR ISSUANCE UNDER THE PLAN**

The Board has adopted, subject to stockholder approval, an amendment to the Company's 2004 Equity Incentive Plan (the "**2004 Incentive Plan**") increasing the number of shares of Common Stock of the Company reserved for issuance under the 2004 Incentive Plan to a total of 3,000,000 shares (the "**Amendment**"). Prior to the approval of the amendment, there were 2,000,000 shares of Common Stock reserved for issuance.

We believe that employees, directors, consultants and key advisors should have a significant stake in the Company under programs that link compensation to stockholder return. As a result, equity compensation is considered to be an integral part of the Company's compensation program. The Company has historically relied on two equity compensation plans, the 2000 Stock Option Plan, from which no further grants can be made, and the 2004 Incentive Plan. As of January 31, 2012, there were 455,166 shares of Common Stock remaining available under the 2004 Incentive Plan for future grants, which the Compensation Committee has determined to be insufficient for the Company's growth.

The Amendment allows the Company to continue to be able to give appropriate equity incentives to its key employees, directors and consultants and that, to this end, provides a sufficient number of shares of the Company's Common Stock for awards to attract, retain and motivate selected participants with outstanding experience and ability.

Because grants under the 2004 Incentive Plan are within the discretion of the Compensation Committee at various future dates, it is not possible as of the date of this proxy statement to accurately determine future benefits that will be received by our executive officers and other plan participants.

Below is a summary of certain material terms of the 2004 Incentive Plan. This summary is subject to the full text of the 2004 Incentive Plan, as amended, which is attached as Annex A to this proxy.

**Eligibility**

The 2004 Incentive Plan provides for the granting of stock options, stock appreciation rights ("**SARs**"), restricted stock awards, performance unit awards and performance share awards (collectively, "**Awards**") to key employees, directors, consultants and key advisors of the Company and its subsidiaries. As of January 31, 2012, approximately 75 employees, directors and consultants were eligible to receive awards under the 2004 Incentive Plan.

**Interest of Certain Persons in Matters to be Acted Upon**

Our current executive officers and directors qualify for participation under the 2004 Incentive Plan. If this proposal is approved, 1,000,000 additional shares of our common stock will be available for future issuance under the 2004 Incentive Plan. Grants under the 2004 Incentive Plan to our executive officers and directors are within the discretion of the Compensation Committee. Accordingly, future grants to our executive officers and directors under the 2004 Incentive Plan have not been determined.

**Purpose**

The purpose of the 2004 Incentive Plan is to promote the success and enhance the value of the Company by linking the personal interests of participating employees, directors and consultants to those of the Company's stockholders and by providing such employees, directors and consultants with an incentive for outstanding performance. The 2004 Incentive Plan is further intended to provide flexibility to the Company in its ability to motivate, attract and retain the services of participating employees and consultants upon whose judgment, interest and special efforts the Company largely depends for the success of its operations.

## **Administration**

The 2004 Incentive Plan is administered by the Compensation Committee of the Board of Directors of the Company (the “**Compensation Committee**”).

## **Available Shares; Limitations on Awards**

Under the 2004 Incentive Plan, currently up to 2,000,000 shares may be issued in the aggregate. On January 29, 2013, the Board of Directors approved an amendment to increase the shares authorized for issuance to 3,000,000, subject to the approval of the stockholders at the 2013 Annual Meeting. If awards are granted under the 2004 Incentive Plan and subsequently expire or are forfeited to the Company, the shares of Common Stock underlying those awards will be available for reissuance.

## **Options**

Plan participants may receive options to purchase shares of Common Stock for an exercise price fixed on the date of the grant. The exercise price may not be less than the fair market value of the Common Stock on the date of the grant. Grants of option rights under the 2004 Incentive Plan may be incentive stock options or non-qualified stock options. An incentive stock option is an option that is intended to qualify as an “incentive stock option” under Section 422 of the Internal Revenue Code. A plan participant may pay the exercise price of an option in cash, by check, or by the transfer of shares of unrestricted Common Stock owned for a period of time acceptable to the Compensation Committee and having a value at the time of exercise equal to the exercise price, by any other consideration the Compensation Committee may deem appropriate (including by way of a “cashless” exercise), or by a combination thereof. The Compensation Committee shall determine the vesting schedule and requirements for continuous service associated with each grant of options and may provide for earlier vesting under specified circumstances. The vesting or exercise of option rights may also be subject to the optionee or the Company achieving management objectives. No incentive options shall be exercisable more than ten years after the date of grant.

## **Stock Appreciation Rights**

A stock appreciation right (“**SAR**”) entitles a participant to receive stock or cash equal in value to the excess of the fair market value of the shares of stock subject to the SAR on the date of exercise over the fair market value of those shares on the date of grant. The 2004 Incentive Plan permits the grant of three types of SARs: Affiliated SARs, Freestanding SARs, Tandem SARs, or any combination thereof. An Affiliated SAR is a SAR that is granted in connection with a related option and which will be deemed to automatically be exercised simultaneously with the exercise of the related option. A Freestanding SAR is a SAR that is granted independently of any options. A Tandem SAR is a SAR that is granted in connection with a related option, the exercise of which requires a forfeiture of the right to purchase a share under the related option (and when a share is purchased under the option, the SAR is similarly cancelled).

The Compensation Committee has complete discretion to determine the number of SARs granted to any participant and the terms and conditions pertaining to such SARs. However, the grant price must be at least equal to the fair market value of a share of the Company’s Common Stock on the date of grant in the case of a Freestanding SAR, and equal to the option price of the related option in the case of an Affiliated or Tandem SAR.

To date, no SARs have been granted under the 2004 Incentive Plan.

## **Restricted Stock Awards**

The 2004 Incentive Plan permits the grant of restricted stock awards, which are Common Stock grants that vest in accordance with terms established by the Compensation Committee. The Compensation Committee may impose restrictions and conditions on the shares, including, without limitation, restrictions based upon the achievement of specific performance goals (Company-wide, divisional and/or individual), and/or restrictions under applicable federal or state securities laws. The Compensation Committee may accelerate the time at which any restrictions lapse, and/or remove any restrictions.

To date, no restricted stock awards have been made under the 2004 Incentive Plan.

**Performance Unit/Share Awards**

The 2004 Incentive Plan permits the grant of performance unit and performance share awards, which are bonuses credited to an account established for the participant and payable in cash, Common Stock, or a combination thereof. Each performance unit has an initial value that is established by the Compensation Committee at the time of its grant. Each performance share has an initial value equal to the fair market value of a share of the Company's Common Stock on the date of its grant. The number and/or value of performance unit/shares that will be paid out to participants will depend upon the extent to which performance goals established by the Compensation Committee are satisfied.

After a performance unit/share award has vested, the participant will be entitled to receive a payout of the number of performance unit/shares earned by the participant, to be determined as a function of the extent to which the corresponding performance goals have been achieved. The Compensation Committee also may waive the achievement of any performance goals for such performance units/shares.

Subject to the applicable award agreement, performance units/shares awarded to participants will be forfeited to the Company upon the earlier of the participant's termination of employment or the date set forth in the award agreement.

To date, no performance units or share awards have been granted under the 2004 Incentive Plan.

**Term**

The 2004 Incentive Plan became effective as of December 1, 2004. No grants of incentive stock options may be made under the 2004 Incentive Plan after December 1, 2014, although grants of other types of awards may be made after that date. All incentive stock options granted under the 2004 Incentive Plan that remain outstanding subsequent to that date shall continue to be governed by the terms of the 2004 Incentive Plan.

**Nontransferability of Awards**

Awards granted under the 2004 Incentive Plan may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will or by the applicable laws of descent and distribution. However, a participant may designate one or more beneficiaries to receive any exercisable or vested awards following his or her death.

**Plan Benefits**

As the grant of awards under the 2004 Incentive Plan is discretionary, it is impossible to determine the amount and terms of such future grants under the 2004 Incentive Plan.

**Prohibition on Repricings**

Under the 2004 Incentive Plan, the Compensation Committee may not reprice or lower the exercise price of outstanding options without the approval of the Company's stockholders.

**Adjustments**

The maximum number of shares of Common Stock that may be awarded under the 2004 Incentive Plan, the number of shares and price per share applicable to any outstanding award, and the maximum number of stock options or stock appreciation rights that can be granted to any one individual in a calendar year, are subject to adjustment in the event of stock dividends, stock splits, combinations of shares, recapitalizations, mergers, consolidations or other reorganizations of the Company.

**Market Value of Underlying Securities of the 2004 Incentive Plan**

Common Stock underlies all of the options and rights to be awarded under the 2004 Incentive Plan. The market value of the Common Stock at the close of trading on January 31, 2013 was \$1.91 per share.

## **Federal Tax Aspects**

The following is a summary of certain federal income tax consequences relating to awards under the 2004 Incentive Plan, based on federal income tax laws currently in effect. The following summary is not intended to and does not describe all of the possible tax consequences that could result from the acquisition, holding, exercise or disposition of an option right or shares of Common Stock purchased or granted pursuant to, or any other award granted under, the 2004 Incentive Plan and does not describe any state, local or foreign tax consequences.

### **Tax Consequences to Participants**

#### *Incentive Stock Options*

A plan participant will not recognize income upon the grant of an option intended to be an incentive stock option. Furthermore, a plan participant will not recognize ordinary income upon the exercise of an incentive stock option if he or she satisfies certain employment and holding period requirements, although the exercise may subject the plan participant to alternative minimum tax. To satisfy the employment requirement, a plan participant must exercise the option not later than three months after he or she ceases to be an employee of the Company and its subsidiaries (one year if he or she is disabled). To satisfy the holding period requirement, a plan participant must hold the shares acquired upon exercise of the incentive stock option for more than two years from the grant of the option and more than one year after the shares are issued to him or her. If these requirements are satisfied, the plan participant will be taxed on the difference between his or her basis in the shares and the net proceeds of the sale at capital gain rates on the sale of the shares.

If a plan participant disposes of shares of Common Stock acquired upon the exercise of an incentive stock option without satisfying the holding period requirement, the plan participant will usually recognize ordinary income at the time of disposition equal to the amount of the difference between the fair market value of the stock on the date the option is exercised and the exercise price of the option.

#### *Non-Qualified Stock Options*

In general, a plan participant will not recognize income at the time a non-qualified option is granted. At the time of exercise of the option, he or she will recognize ordinary income, if the underlying shares are not subject to a substantial risk of forfeiture (as defined in Section 83 of the Internal Revenue Code). The amount of such income will be equal to the difference between the option exercise price and the fair market value of the shares of Common Stock on the date of exercise. At the time of the sale of the shares of Common Stock acquired pursuant to the exercise of an option, appreciation in value of the shares after the date of exercise will be treated as either short-term or long-term capital gain, and depreciation in value will be treated as short-term or long-term capital loss, depending on how long the shares have been held. Long-term capital gains may be eligible for reduced rates if the participant has satisfied applicable holding period requirements.

#### *Stock Appreciation Rights*

A plan participant will not recognize income upon the grant of a stock appreciation right. In general, a participant will recognize ordinary income at the time he or she receives payment on a stock appreciation right in the amount of the payment.

#### *Restricted Shares*

In general, a plan participant will not recognize ordinary income upon receipt of restricted shares. The plan participant will recognize ordinary income when the shares are transferable by the plan participant or are no longer subject to a substantial risk of forfeiture, whichever occurs first. At such time, the plan participant will recognize ordinary income in an amount equal to the current fair market value of the shares. A plan participant may, however, elect to recognize ordinary income when the restricted shares are granted in an amount equal to the fair market value of the shares at that time, determined without regard to the restrictions. Any appreciation in the value of the shares after the date the shares become transferable or are no longer subject to substantial risk of forfeiture, or after the participant has made the election referred to in the preceding sentence, if applicable, will be treated as either short-term or long-term capital gain, and any depreciation in value will be treated as either short-term or long-term capital loss, depending upon how long the shares have been held.

*Performance Units/Share Awards*

A plan participant will not recognize income upon the grant of performance units and performance share awards. In general, a plan participant will recognize ordinary income at the time he or she receives payment with respect to performance units in the amount of the payment and at the time her or she receives the shares in the amount equal to the fair market value of the Common Stock.

*Tax Consequences to the Company*

To the extent that a plan participant recognizes ordinary income as described above, the Company, or its subsidiary for which the plan participant performs services, will be entitled to a corresponding deduction provided that, among other things, the income meets the test of reasonableness, is an ordinary and necessary business expense, is not an “excess parachute payment” within the meaning of Section 280G of the Internal Revenue Code and is not disallowed by the \$1,000,000 limitation on certain executive compensation under Section 162(m) of the Internal Revenue Code.

**Vote Required; Recommendation of the Board**

Proposal 2 must be approved by the Required Vote, assuming a quorum is present. For this purpose, abstentions will be counted as a vote against the proposal, while broker non-votes will have no effect on the outcome of the vote. We believe that stockholder approval in accordance with our Bylaws will also satisfy the stockholder approval requirement of Section 162(m) of the Internal Revenue Code.

**THE BOARD UNANIMOUSLY RECOMMENDS A VOTE “FOR” PROPOSAL TWO.**

**PROPOSAL THREE**  
**ADVISORY VOTE ON EXECUTIVE COMPENSATION**

The Company's compensation program objective is to attract and retain executives who can achieve the short and long-term goals of the Company. The program seeks to do the following:

- Attract and retain talent needed to achieve the Company's strategic and operational goals;
- Motivate employees by providing competitive compensation packages;
- Recognize and reinforce individual performers who do an outstanding job; and
- Align the interests of senior management with the interests of the stockholders.

The Compensation Committee, comprised solely of independent directors, makes all compensation decisions regarding the Chief Executive Officer of the Company and reviews and approves the compensation of other Named Executive Officers (NEOs). The compensation of other officers is reviewed annually by the Compensation Committee. The Compensation Committee can and does exercise its discretion to modify any recommended adjustment or award to senior executives.

***Components of the Compensation Plan.***

Below is a discussion of the three principal components of our executive compensation program. These are in addition to the benefits programs generally available to our employees, including health, life, disability insurance and a 401(k) plan. We believe that paying a mix of these three components to our executive officers is appropriate to meet the objectives described above. The Compensation Committee retains authority to allocate total compensation between the three components on an annual basis, with a view toward maintaining an optimal balance between the three components to reward performance over time. Therefore, payments in any particular category may fluctuate from year to year to reflect individual performance, the Company's financial position and operational performance, and competition for executive talent in our industry. The three principal components to our compensation program are:

**Base Salary:** Each of our executive officers receives a fixed base salary. The Compensation Committee reviews base salary on a regular basis to determine the appropriateness of each executive officers' base salary based on professional judgment and comparative analysis of salaries paid for comparable positions at comparable companies.

**Equity Awards:** The Company's equity compensation program is designed to incentivize employees to work toward the short-term and long-term goals of the Company and to align the interests of employees with the interests of stockholders. All employees are eligible to participate in the Company's equity compensation program. In fiscal 2012, the incentive bonus payments made to the NEO's were awarded partially in recognition of the Company's achievement in acquiring the RNA's program and assets from Roche.

**Performance and Hiring Awards:** Based on individual performance, the Company gives cash performance bonuses to employees. These bonuses are generally paid to executive officers on an annual basis and are approved by the Compensation Committee based upon input from the CEO. The Compensation Committee sets annual performance goals for the CEO and determines any bonus award based on achievement of these goals and the Company's overall performance.

The compensation paid to our NEO's is described on pages 21 and 22 of this proxy statement for the fiscal year ended September 30, 2012. The Board of Directors is asking stockholders to cast 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, as set forth in the compensation tables and narrative discussion, is hereby APPROVED."

Although the vote we are asking you to cast is non-binding, the Compensation Committee and the Board value the views of our stockholders and will consider the outcome of the vote when determining future compensation arrangements for our named executive officers.

Proposal 3 must be approved by the Required Vote, assuming a quorum is present. For this purpose, abstentions will be counted as a vote against the proposal, while broker non-votes will have no effect on the outcome of the vote.

**THE BOARD UNANIMOUSLY RECOMMENDS A VOTE "FOR" PROPOSAL THREE.**

**PROPOSAL FOUR  
ADVISORY VOTE ON FREQUENCY OF EXECUTIVE COMPENSATION ADVISORY VOTES**

In Proposal 3, we are asking stockholders to cast an advisory vote for the compensation disclosed in this proxy statement that we paid in fiscal 2012 to our named executive officers. This advisory vote is referred to as a "say-on-pay" vote. In this Proposal 4, the Board of Directors is asking stockholders to cast a non-binding, advisory vote on how frequently we should have say-on-pay votes in the future. Stockholders will be able to mark the enclosed proxy card or voting instruction form on whether to hold say-on-pay votes every one, two or three years. Alternatively, you may indicate that you are abstaining from voting.

"RESOLVED, that the shareholders of the Company recommend, in a non-binding vote, whether an advisory vote to approve the compensation of the Company's named executive officers should occur every one, two or three years."

This vote, like the say-on-pay vote itself, is not binding on the Board. The Board believes that every three years is the appropriate frequency. Our executive compensation programs are intended to have a focus that is longer than the current year for which compensation is paid. As a result, the Board believes that our executive compensation programs should be evaluated over a period longer than one year because our programs are designed to reward performance over time, and the Company believes that three years is an appropriate period over which to evaluate the effectiveness of those programs. While we recognize that there are many views on the appropriateness of any interval of frequency, we believe that conducting an annual advisory vote on executive compensation may unnecessarily focus on short-term performance. However, if a plurality of votes are cast in favor of an interval other than three years, the Board intends to consider the vote of stockholders and evaluate the frequency with which an advisory vote on executive compensation will be submitted to stockholders in the future. Even if a plurality of votes are cast in favor of a three-year frequency, if our executive compensation program is materially changed in any year, the Board may present a say-on-pay vote at the next annual meeting even if it would otherwise not be scheduled.

Proposal 4 must be approved by the Required Vote, assuming a quorum is present. For this purpose, abstentions will be counted as a vote against the proposal, while broker non-votes will have no effect on the outcome of the vote.

**THE BOARD UNANIMOUSLY RECOMMENDS THAT STOCKHOLDERS SELECT "EVERY 3 YEARS" ON THE PROPOSAL CONCERNING THE FREQUENCY OF FUTURE ADVISORY VOTES ON EXECUTIVE COMPENSATION.**

**PROPOSAL FIVE**  
**RATIFICATION OF APPOINTMENT OF INDEPENDENT AUDITORS**

Our Audit Committee, with the ratification of our Board, selected the accounting firm of Rose, Snyder & Jacobs (“**RS&J**”) as the Company’s independent auditors for the fiscal year ending September 30, 2013, and that selection is now being submitted to the stockholders.

A representative of RS&J will be available at the Annual Meeting to respond to appropriate questions or make any other statements such representative deems appropriate.

Stockholders are not required to ratify the appointment of RS&J as our independent auditor. However, we are submitting the appointment for ratification as a matter of good corporate practice. If stockholders fail to ratify the appointment, the Audit Committee will consider whether or not to retain RS&J. Even if the appointment is ratified, the Audit Committee may direct the appointment of a different independent auditor at any time during the year if it determines that such a change would be in the best interests of the Company and our stockholders.

**Vote Required; Recommendation of the Board**

In order to be ratified, Proposal 5 must be approved by a majority of Required Vote, assuming a quorum is present. For this purpose, abstentions will be counted as a vote against the proposal, while broker non-votes will have no effect on the outcome of the vote.

**THE BOARD UNANIMOUSLY RECOMMENDS A VOTE “FOR” PROPOSAL FIVE.**

**AUDIT FEES**

The Audit Committee regularly reviews and determines whether specific projects or expenditures with our independent auditors, Rose, Snyder & Jacobs, may potentially affect their independence. The Audit Committee’s policy is to pre-approve all audit and permissible non-audit services provided by RS&J. Pre-approval is generally provided by the Audit Committee for up to one year, detailed to the particular service or category of services to be rendered and is generally subject to a specific budget. The Audit Committee may also pre-approve additional services of specific engagements on a case-by-case basis. All engagements of our independent registered public accounting firm in 2012 and 2011 were pre-approved by the audit committee.

The following table sets forth the aggregate fees invoiced by RS&J for the fiscal years ended September 30, 2012, and September 30, 2011:

	<u>Year Ended September 30,</u>	
	<u>2012</u>	<u>2011</u>
Audit fees (1)	\$ 159,065	\$ 116,200
Audit-related fees (2)	42,459	16,250
Tax fees (3)	—	20,085
Total	<u>\$ 201,524</u>	<u>\$ 152,435</u>

(1) Fees invoiced by RS&J include year-end audit and periodic reviews of Forms 10-Q and 10-K.

(2) Fees invoiced by RS&J related to Comfort Letters and Consents for financings and registration statements, and other agreed-upon procedures.

(3) This category consists of professional services rendered by RS&J for tax return preparation and consulting. The Company has retained another public accounting firm for tax preparation and consulting.

## REPORT OF THE AUDIT COMMITTEE

The following is the report of the Audit Committee with respect to the Company's audited financial statements for fiscal 2012, which include the consolidated balance sheets of the Company as of September 30, 2012 and 2011, and the related consolidated statements of operations, stockholders' equity and cash flows for the years ended September 30, 2012 and 2011 and for the period from May 7, 2003 (inception) through September 30, 2012, and the notes thereto.

**Composition.** The Audit Committee of the Board is comprised of three directors and operates under a written charter adopted by the Board. The members of the Audit Committee are Edward W. Frykman, Charles P. McKenney and Michael S. Perry. All members of the Audit Committee are "independent," as defined in Rule 10A-3 under the Exchange Act and Rule 4200(a)(14) of the NASDAQ Marketplace Rules, and financially literate.

**Responsibilities.** The responsibilities of the Audit Committee include engaging an accounting firm as the Company's independent registered public accounting firm. Management has primary responsibility for the Company's internal controls and financial reporting process. The independent registered public accounting firm is responsible for performing an independent audit of the Company's consolidated financial statements in accordance with generally accepted auditing standards and for issuing a report thereon. The Audit Committee's responsibility is to oversee these processes.

**Review with Management and independent registered public accounting firm.** On December 8, 2012, the Audit Committee consisted of Edward W. Frykman, Charles McKenney and Michael S. Perry. On that date, the Audit Committee met separately to review the Company's consolidated audited financial statements and held discussions with management and RS&J. Management represented to the Audit Committee that the Company's consolidated financial statements were prepared in accordance with generally accepted accounting principles. The members of the Audit Committee discussed with RS&J matters required to be discussed by Statement on Auditing Standards No. 61, as amended, "Communication with Audit Committees." The Company's independent registered public accounting firm also provided to the Audit Committee the written disclosures and the letter required by the Public Company Accounting Oversight Board regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence and the Audit Committee discussed the firm's independence with RS&J.

**Conclusion.** Based upon the Audit Committee's review of the financial statements and discussions with management and RS&J, the Audit Committee's review of the representations of management and the report of RS&J to the Audit Committee, the Audit Committee recommended that the Board include the audited consolidated financial statements in the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2012, as filed with the SEC.

This report is submitted by the Audit Committee of the Board.

Edward W. Frykman,  
Chairman  
Charles P. McKenney  
Michael S. Perry

## VOTING SECURITIES OF PRINCIPAL STOCKHOLDERS AND MANAGEMENT

The following table sets forth the beneficial ownership of the Company's Common Stock as of January 31, 2013, by (i) each of the named executive officers named in the table under "Executive Compensation and Related Information," (ii) each director, (iii) all current directors and executive officers as a group, and (iv) the holders of greater than 5% of our total shares outstanding known to us. Unless otherwise specified in the footnotes to the table below, the persons and entities named in the table have sole voting and investment power with respect to all shares beneficially owned, subject to community property laws, where applicable, and the address of each stockholder is c/o Arrowhead Research Corporation, 225 South Lake Avenue, Suite 1050, Pasadena, California 91101.

	Number and Percentage of Shares Beneficially Owned (1)	
	Shares	Percentage
<b>5% Beneficial Owners</b>		
M. Robert Ching (2)	1,709,843	9.9%
Galloway Ltd. (3)	1,270,981	9.4%
<b>Executive Officers and Directors</b>		
Chris Anzalone (4)	327,718	1.9%
Kenneth Myszkowski (5)	68,219	*
Bruce Given (6)	45,688	*
Edward Frykman (7)	52,500	*
Charles McKenney (8)	44,020	*
Mauro Ferrari (9)	30,000	*
Michael S. Perry (10)	26,795	*
Douglass Given	—	—
All executive officers and directors as a group (7 persons) (11)	617,753	3.6%

\* Less than 1%

- (1) Based on 17,115,549 common shares issued and outstanding as of November 30, 2012. Shares not outstanding but deemed beneficially owned by virtue of the right of a person to acquire them as of November 30, 2012, or within sixty days of such date, are treated as outstanding only when determining the percentage owned by such individual and when determining the percentage owned by a group.
- (2) Includes 1,221,699 shares of common stock and 1,253,139 shares of common stock issuable upon the exercise of common stock purchase warrants, of which 371,687 shares of common stock and 262,805 shares of common stock issuable upon the exercise of common stock purchase warrants are held by BBB Assets for which M. Robert Ching holds investment and voting control. Certain of the warrants and the conversion of the preferred stock are subject to a contractual blocker whereby the right to exercise or convert such warrant or preferred stock is limited such that Dr. and Mrs. Ching will not have greater than 9.99% beneficial ownership of the outstanding common stock. Warrants to purchase 764,995 shares are currently not exercisable due to this limitation.
- (3) Denham Eke holds voting and investment control with respect to the shares beneficially owned by Galloway, Ltd. The address for Galloway, Ltd. is Viking House, Nelson Street, Douglas, Isle of Man, IM1 2AH.
- (4) Includes 249,498 shares issuable upon the exercise of stock options, and 32,173 shares issuable upon the exercise of common stock purchase warrants that are exercisable within 60 days of November 30, 2012.
- (5) Includes 60,052 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2012.
- (6) Includes 38,355 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2012.
- (7) Includes 30,500 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2012.
- (8) Includes 28,000 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2012.
- (9) Includes 24,845 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.

- (10) Includes 6,771 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2012.
- (11) Includes 438,032 shares issuable upon the exercise of stock options, and 32,173 shares issuable upon the exercise of common stock purchase warrants that are exercisable within 60 days of November 30, 2012.

### EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of September 30, 2012 with respect to shares of our Common Stock that may be issued under our equity compensation plans.

<u>Plan Category</u>	<u>Equity Compensation Plan Information</u>		
	Number of securities to be Issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders(1)	1,659,594	\$ 6.20	459,166
Equity compensation plans not approved by security holders (2)	251,200	\$ 4.70	—
<b>Total</b>	<b>1,910,794</b>	<b>\$ 6.01</b>	<b>459,166</b>

- (1) Includes options outstanding representing 1,506,694 shares subject to the 2004 Equity Incentive Plan and 152,900 shares subject to the 2000 Stock Option Plan. No additional shares are available for issuance under the 2000 option plan.
- (2) Includes inducement options issued to newly hired employees upon the acquisition of Roche Madison in October 2011.

## Current Executive Officers of the Registrant

The names, ages and positions of our current executive officers serving as of January 31, 2012 are provided below. Biographical information regarding these officers is set forth under the following table, except for Dr. Anzalone, whose biography is set forth above with our other directors.

<u>Name</u>	<u>Age</u>	<u>Position with Arrowhead</u>
Christopher Anzalone	43	Chief Executive Officer & President and Director
Kenneth A. Myszkowski	46	Chief Financial Officer
Bruce Given	58	Chief Operating Officer

**Kenneth A. Myszkowski**, Chief Financial Officer, joined Arrowhead in 2009. Prior to joining Arrowhead, Mr. Myszkowski served as the corporate controller for Broadwind Energy, a public energy company which provides products and services to the wind energy industry. Previous to his position at Broadwind, Mr. Myszkowski was controller for Epcor USA, the U.S. headquarters for Epcor Utilities, Inc., a public energy company. Prior to Epcor, Mr. Myszkowski was controller for two start-up ventures: NanoInk, specializing in Dip Pen Nanolithography, a nanofabrication technology, and Delphion, which provided on-line tools for intellectual property research. Mr. Myszkowski also held several corporate roles at FMC Corporation, and Premark International, both Fortune 500 conglomerates. He began his career in the audit practice of Arthur Andersen & Co. in Chicago, Illinois. Mr. Myszkowski received his undergraduate degree from the University of Illinois, and his MBA from the University of Chicago Booth School of Business. He is a certified public accountant [in the state of Illinois].

**Dr. Bruce Given**, Chief Operating Officer, joined Arrowhead in 2011. Since October 1, 2009, Dr. Given has been a director of the Company's subsidiary, Calando Pharmaceuticals, Inc., and since February 1, 2010, Dr. Given has been Chief Executive Officer of Leonardo Biosystems, Inc., a company in which Arrowhead holds a minority equity interest. Dr. Given has been a member of the Board of Directors for ICON, plc. since 2007, and Chairman of its Board of Directors since 2010. Dr. Given served as the President and Chief Executive Officer, and as a member of the Board of Directors of Encysive Pharmaceuticals, an R&D-based commercial pharmaceutical company, roles he held from 2002 through 2007. Subsequent to his tenure at Encysive until present, Dr. Given has been President of Bruce Given Consulting, a firm that provides consulting services to biotech companies. Prior to his tenure at Encysive, Dr. Given held several senior executive roles at Johnson and Johnson, Sandoz Pharmaceuticals, and Schering-Plough. Dr. Given obtained his bachelor of sciences degree from Colorado State University, graduating Phi Beta Kappa. He received an M.D. with honors from the University of Chicago and completed his medical training at the University of Chicago and at Brigham and Women's Hospital in Boston, where he was a Clinical Fellow at Harvard Medical School. He is board certified in internal medicine and endocrinology and metabolism and has authored 33 scientific publications. Dr. Bruce Given is a brother of Dr. Douglass Given, a director of the company.

## SUMMARY COMPENSATION TABLE

The following table summarizes compensation paid, awarded or earned for services rendered during fiscal 2012 and fiscal 2011 by our Chief Executive Officer, our Chief Financial Officer, and our other executive officer serving the Company as of September 30, 2012. We refer to those persons collectively as our “Named Executive Officers”.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$) (1)	All Other Compensation (\$) (2)	Total (\$)
Christopher Anzalone	2012	473,000	200,000	—	811,685	—	1,484,685
President & Chief Executive Officer	2011	400,000	25,000	—	—	—	425,000
Ken Myszkowski	2012	262,000	60,000	—	425,672	9,731	747,672
Chief Financial Officer	2011	225,000	7,500	—	—	9,000	241,500
Bruce Given	2012	317,000	—	—	605,445	9,459	931,904
Chief Operating Officer (3)							

- (1) This column represents the total grant date fair value, computed in accordance with ASC 718, of stock options granted during fiscal year 2012. No stock options were granted during fiscal 2011. The assumptions used to calculate the value of the stock underlying the option awards are set forth in Note 9 of the Notes to the Consolidated Financial Statements included with the Company’s Annual Report on 10-K.
- (2) Amounts consist of 401(k) matching contributions.
- (3) Bruce Given was hired on October 26, 2012, thus compensation reflected is for a partial year of approximately eleven months.

### Employment Agreements and Change of Control Arrangements

Each of the Company’s Named Executive Officers is an at-will employee. Mr. Anzalone’s employment agreement, as amended, provides for a minimum base salary of \$500,000 and for an annual review of his salary by the Compensation Committee. Mr. Myszkowski’s annual salary is determined on an annual basis by the Compensation Committee. The Named Executive Officers’ annual bonus and stock and option awards are determined on an annual basis by the Compensation Committee. The Company generally does not have severance or change of control arrangements with its Named Executive Officers, except that Mr. Anzalone is entitled to severance pay equal to one month’s base salary and an amount equal to the premiums on his medical and dental benefits for thirty days upon termination in accordance with his employment agreement. Mr. Myszkowski is entitled to severance pay equal to three month’s base salary plus an amount equal to the premiums on his medical and dental benefits for the same period. Additionally, pursuant to the 2004 Equity Incentive Plan, any unvested awards held by plan participants, including the Named Executive Officers, become fully vested upon a change of control, except as otherwise determined by the Board.

## Outstanding Equity Awards at Fiscal Year-End

The following table provides information, with respect to the Named Executive Officers, concerning the Outstanding Equity Awards of the Company's stock as of September 30, 2012.

	Option Awards (1)			
	Number of Securities Underlying Unexercised Options (#) (Exercisable)	Number of Securities Underlying Unexercised Options (#) (Unexercisable)	Option Exercise Price (\$)	Option Expiration Date
Christopher Anzalone	2,500	—	21.30	6/11/2018
	112,650	—	5.10	10/8/2019
	56,325	—	5.20	3/4/2020
	26,042	23,958	9.90	8/16/2020
	3,438	11,562	4.60	10/21/2021
	24,792	145,208	5.19	2/16/2022
	—	50,000	2.62	9/28/2022
Ken Myszkowski	16,927	8,073	7.00	11/16/19
	8,000	—	5.20	3/4/2020
	6,250	5,750	9.90	8/16/2020
	3,438	11,562	4.60	10/21/2021
	12,104	70,896	5.19	2/16/2022
	—	25,000	2.62	9/28/2022
Bruce Given	771	229	6.20	9/28/19
	6,875	23,125	5.20	10/26/2021
	16,042	93,958	5.19	2/16/2022
	—	35,000	2.62	9/28/2022

- (1) Except for 30,000 options granted to Bruce Given as an inducement grant upon his hire, all option awards were granted under the 2004 Equity Incentive Plan of the Company. Options are priced at the market closing price on the day of the award. Options have various vesting parameters, but generally vest within 48 months or less after the award is granted.

## Option Exercises and Stock Vested in Fiscal Year 2012

No named executive officers exercised any options or had any restricted stock vest in fiscal year 2012.

## Section 16(a) Beneficial Ownership Reporting Compliance

Under Section 16(a) of the Securities Exchange Act of 1934, the Company's directors and officers and its significant stockholders (defined by statute as stockholders beneficially owning more than ten percent (10%) of the Common Stock) are required to file with the SEC and the Company reports of ownership, and changes in ownership, of common stock. Based solely on a review of the reports received by it, the Company believes that, during the fiscal year ended September 30, 2012, all of its officers, directors and significant stockholders complied with all applicable filing requirements under Section 16(a).

## REVIEW AND APPROVAL OF RELATED-PARTY TRANSACTIONS

Our Board has adopted policies and procedures for the review and approval of related-party transactions and has delegated to the Audit Committee the authority to review and approve the material terms of any proposed related-party transactions. To the extent that a proposed related-party transaction may involve a non-employee director or nominee for election as a director and may be material to a consideration of that person's independence, the matter may also be considered by the other disinterested directors.

Pursuant to our Code of Business Conduct and Ethics and our Corporate Governance Committee Charter, each of our officers, directors and employees must disclose related-party transactions to our Board of Directors. In order to avoid conflicts of interest, our executive officers and directors may not acquire any ownership interest in any supplier, customer or competitor (other than nominal amounts of stock in publicly traded companies), enter into any consulting or employment relationship with any customer, supplier or competitor, or engage in any outside business activity that is competitive with any of our businesses, without first disclosing the proposed transaction. After the proposed transaction has been disclosed, a determination will be made by our Board or Audit Committee as to what course to follow, depending on the nature or extent of the conflict. Furthermore, our executive officers and directors may not serve on any board of directors of any customer, supplier or competitor unless such board service has been disclosed to us and approved by our Board.

In determining whether to approve or ratify a related-party transaction, the Board and/or Committee may consider, among other factors it deems appropriate, the potential benefits to us, the impact on a director's or nominee's independence or an executive officer's relationship with or service to us, whether the related-party transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related party's interest in the transaction. In deciding to approve a transaction, the Board or Audit Committee may, in its sole discretion, impose such conditions as it deems appropriate on us or the related party in connection with its approval of any transaction. Any transactions involving the compensation of executive officers, however, are reviewed and approved by the Compensation Committee. If a related-party transaction will be ongoing, the Audit Committee may establish guidelines to be followed in our ongoing dealings with the related party. Thereafter, the Audit Committee reviews and assesses the ongoing relationship with each related party to see that it is in compliance with the committee's guidelines and that the related-party transaction remains appropriate.

## CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

As of September 30, 2012, a majority of the members of the Board are independent directors, as defined by the NASDAQ Marketplace Rules. The Board has determined that all of the Company's directors are independent, except Dr. Anzalone, the Company's Chief Executive Officer, and Dr. Douglass Given, the brother of the Company's Chief Operating Officer. Non-employee directors do not receive consulting or other fees from the Company, other than Board compensation.

Nanotope and Leonardo were co-founded by the Company's President and Chief Executive Officer, Dr. Christopher Anzalone, who beneficially owns approximately 14.2% and 9.4% of the outstanding voting securities of Nanotope and Leonardo, respectively. Dr. Anzalone does not hold options, warrants or any other rights to acquire securities of Nanotope or Leonardo. Dr. Anzalone has the right to appoint a representative to the Board of Directors of each Nanotope and Leonardo. Dr. Anzalone is serving as the President and Chief Executive Officer of Nanotope. Dr. Anzalone has not received any compensation for his work on behalf of Nanotope or Leonardo since joining the Company on December 1, 2007.

During fiscal 2012, a portion of Arrowhead employee salary costs, including Dr. Anzalone's salary and administrative overhead, was charged to Nanotope and Leonardo for management and administrative services provided by Arrowhead to Nanotope and Leonardo. During fiscal 2012, the charge for services provided to Nanotope and Leonardo were \$198,269 and \$239,783, respectively. In addition, during fiscal 2012, Arrowhead made cash advances to Nanotope of \$475,000 and cash advances to Leonardo of \$56,000. The receivable from Nanotope has been fully reserved, and the operations of Nanotope have been suspended. Accordingly, future cash advances are expected to be minimal. The receivable from Leonardo, in the amount of \$547,000 has been fully reserved, however, the majority of the balance due Arrowhead from Leonardo is expected to be repaid in cash or

converted to equity in fiscal 2013. In addition, Dr. Bruce Given, the Company's Chief Operating Officer, and CEO of Leonardo is the brother of Dr. Douglass Given, a member of Arrowhead's Board of Directors. Dr. Douglass Given has no financial interest in Leonardo.

In August 2010, the Company retained Mr. Vincent Anzalone, the brother of Arrowhead's Chief Executive Officer, as a consultant for the Company, focusing on business development and market analysis. Mr. Vincent Anzalone was paid \$120,000 during the fiscal year ended September 30, 2011, and \$120,000 during the fiscal year ended September 30, 2012. Mr. Vincent Anzalone joined the Company as an employee on September 24, 2012 at an annual salary of \$130,000.

#### **Annual report on Form 10-K**

The Company will mail, without charge to any stockholder upon written request, a copy of the Company's Annual Report on Form 10-K for the year ended September 30, 2012 including the financial statements, schedules and a list of exhibits. Requests should be sent to Arrowhead Research Corporation, 225 S. Lake Avenue, Suite 1050 Pasadena, CA 91101, Attn: Corporate Secretary, Phone (626) 304-3400.

#### **Stockholders Sharing the Same Address**

We may satisfy SEC rules regarding delivery of proxy statements including the proxy statement, annual report and Notice, by delivering a single Notice and, if applicable, a single set of proxy materials to an address shared by two or more of our stockholders. This delivery method can result in meaningful cost savings for us. To take advantage of this opportunity, we may deliver only one Notice, and if applicable, a single set of proxy materials to multiple stockholders who share an address, unless contrary instructions are received prior to the mailing date. Similarly, if you share an address with another stockholder and have received multiple copies of our Notice and/or other proxy materials, you may write or call us at the address and phone number below to request delivery of a single copy of these materials in the future. We undertake to deliver promptly upon written or oral request a separate copy of the Notice and/or other proxy materials to a stockholder at a shared address to which a single copy of these documents was delivered. If you hold stock as a record stockholder and prefer to receive separate copies of a Notice, and if applicable, other proxy materials either now or in the future, please contact us at the address provided below. If your stock is held through a brokerage firm or bank and you prefer to receive separate copies of a Notice and, if applicable, other proxy materials either now or in the future, please contact your brokerage firm or bank.

Arrowhead Research Corporation  
225 S. Lake Avenue, Suite 1050  
Pasadena CA 91101  
Attn: Corporate Secretary  
Phone (626) 304-3400

#### **Other Matters**

The Company knows of no other matters to be submitted at the Annual Meeting. If any other matters properly come before the meeting, it is the intention of the persons named in the proxy card to vote the shares they represent as the Board may recommend.

BY ORDER OF THE BOARD OF DIRECTORS

/s/ Jane Davidson

\_\_\_\_\_  
Jane Davidson,  
Secretary

Pasadena, California  
February 4, 2013

Annex A

**ARROWHEAD RESEARCH CORPORATION**  
Amended & Restated 2004 Equity Incentive Plan

SECTION 1  
BACKGROUND, PURPOSE AND DURATION

1.1 Background and Effective Date. The Plan provides for the granting of Nonqualified Stock Options, Incentive Stock Options, Stock Appreciation Rights (or SARs), Restricted Stock, Performance Units, and Performance Shares. The Plan is adopted and effective as of December 1, 2004, subject to approval by the stockholders of the Company within twelve (12) months. The Company will seek stockholder approval in the manner and to the degree required under Applicable Laws. Awards may be granted prior to the receipt of stockholder approval, but such grants shall be null and void if such approval is not in fact received within twelve (12) months.

1.2 Purpose of the Plan. The purpose of the Plan is to promote the success, and enhance the value, of the Company by aligning the interests of Participants with those of the Company's shareholders, and by providing Participants with an incentive for outstanding performance. The Plan is further intended to provide flexibility to the Company in its ability to motivate, attract, and retain the services of outstanding individuals, upon whose judgment, interest, and special effort the success of the Company largely is dependent.

1.3 Duration of the Plan. The Plan shall commence on the date specified in Section 1.1 and subject to SECTION 12 (concerning the Board's right to amend or terminate the Plan), shall remain in effect thereafter. However, without further stockholder approval, no Incentive Stock Option may be granted under the Plan on or after December 1, 2014.

1.4 Termination of Old Plans. The Company's existing stock option plan (the 2000 Stock Option Plan) shall terminate effective upon stockholder approval of this Plan, and no further grants of awards shall be made under that plan after the date of such approval. The termination of that plan will not affect the rights of holders of options previously granted and outstanding under that plan.

SECTION 2  
DEFINITIONS

The following words and phrases shall have the following meanings unless a different meaning is plainly required by the context:

2.1 "1934 Act" means the Securities Exchange Act of 1934, as amended. Reference to a specific section of the Exchange Act or regulation thereunder shall include such section or regulation, any valid regulation promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

2.2 "Affiliate" means any corporation or any other entity (including, but not limited to, partnerships and joint ventures) controlling, controlled by, or under common control with the Company.

2.3 "Affiliated SAR" means an SAR that is granted in connection with a related Option, and which automatically will be deemed to be exercised at the same time that the related Option is exercised.

2.4 "Applicable Laws" means the requirements relating to the administration of equity plans under U. S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Shares are listed or quoted and the applicable laws of any foreign country or jurisdiction where Awards are, or will be, granted under the Plan.

2.5 "Award" means, individually or collectively, a grant under the Plan of Nonqualified Stock Options, Incentive Stock Options, SARs, Restricted Stock, Performance Units, or Performance Shares.

2.6 "Award Agreement" means the written agreement setting forth the terms and provisions applicable to each Award granted under the Plan.

2.7 “Board” or “Board of Directors” means the Board of Directors of the Company.

2.8 “Change in Control” is defined in Section 15.4.

2.9 “Code” means the Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or regulation thereunder shall include such section or regulation, any valid regulation promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

2.10 “Committee” means the committee appointed by the Board to administer the Plan pursuant to Section 3.1.

2.11 “Company” means Arrowhead Research Corporation, a Delaware corporation, or any successor thereto.

2.12 “Consultant” means an individual who provides significant services to the Company and/or an Affiliate, including a Director who is not an Employee.

2.13 “Director” means any individual who is a member of the Board of Directors of the Company.

2.14 “Disability” means a permanent and total disability within the meaning of Code Section 22(e)(3).

2.15 “Employee” means an employee of the Company or of an Affiliate, whether such employee is so employed at the time the Plan is adopted or becomes so employed subsequent to the adoption of the Plan.

2.16 “ERISA” means the Employee Retirement Income Security Act of 1974, as amended. Reference to a specific section of ERISA shall include such section, any valid regulation promulgated thereunder, and any comparable provision of any future legislation amending, supplementing or superseding such section.

2.17 “Fair Market Value” means as of any date, the value of a Share determined as follows:

(a) If the Shares are listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such Share (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of, or the last market trading day prior to, the day of determination, as reported in The Wall Street Journal or such other source as the Committee deems reliable;

(b) If the Shares are regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of the Share shall be the mean between the high bid and low asked prices for the Shares on the day of, or the last market trading day prior to, the day of determination, as reported in The Wall Street Journal or such other source as the Committee deems reliable; or

(c) In the absence of an established market for the Shares, the Fair Market Value shall be determined in good faith by the Committee.

2.18 “Freestanding SAR” means a SAR that is granted independently of any Option.

2.19 “Incentive Stock Option” or “ISO” means an option to purchase Shares, which is designated as an Incentive Stock Option and is intended to meet the requirements of Section 422 of the Code.

2.20 “Nonqualified Stock Option” means an option to purchase Shares which is not intended to be an Incentive Stock Option.

2.21 “Option” means an Incentive Stock Option or a Nonqualified Stock Option.

2.22 “Option Price” means the price at which a Share may be purchased pursuant to an Option.

2.23 “Participant” means an Employee, Consultant or Director who has an outstanding Award.

2.24 “Performance Share” means an Award granted to an Employee pursuant to SECTION 8 having an initial value equal to the Fair Market Value of a Share on the date of grant.

2.25 “Performance Unit” means an Award granted to an Employee pursuant to SECTION 8 having an initial value (other than the Fair Market Value of a Share) that is established by the Committee at the time of grant.

2.26 “Period of Restriction” means the period during which the transfer of Shares of Restricted Stock are subject to restrictions.

2.27 “Plan” means the Arrowhead Research Corporation 2004 Equity Incentive Plan, as set forth in this instrument and as hereafter amended from time to time.

2.28 “Restricted Stock” means an Award granted to a Participant pursuant to SECTION 7.

2.29 “Retirement” means, in the case of an Employee, a Termination of Employment by reason of the Employee’s retirement at or after age 62.

2.30 “Rule 16b-3” means Rule 16b-3 promulgated under the 1934 Act, and any future regulation amending, supplementing or superseding such regulation.

2.31 “Section 16 Person” means a person who, with respect to the Shares, is subject to Section 16 of the 1934 Act.

2.32 “Shares” means the shares of common stock, \$0.001 par value, of the Company.

2.33 “Stock Appreciation Right” or “SAR” means an Award, granted alone or in connection with a related Option, that pursuant to the terms of SECTION 7 is designated as an SAR.

2.34 “Subsidiary” means any “subsidiary corporation” (other than the Company) as defined in Code Section 424(f).

2.35 “Tandem SAR” means an SAR that is granted in connection with a related Option, the exercise of which shall require forfeiture of the right to purchase an equal number of Shares under the related Option (and when a Share is purchased under the Option, the SAR shall be canceled to the same extent).

2.36 “Termination of Employment” means a cessation of the employee-employer or director or other service arrangement relationship between an Employee, Consultant or Director and the Company or an Affiliate for any reason, including, but not by way of limitation, a termination by resignation, discharge, death, Disability, Retirement, or the disaffiliation of an Affiliate, but excluding any such termination where there is a simultaneous reemployment or re-engagement by the Company or an Affiliate.

### SECTION 3 ADMINISTRATION

3.1 The Committee. The Plan shall be administered by a committee of the Board that meets the requirements of this Section 3.1 (hereinafter referred to as “the Committee”). The Committee shall consist of not less than two (2) Directors. The members of the Committee shall be appointed from time to time by, and shall serve at the pleasure of, the Board of Directors. The Committee shall be comprised solely of Directors who are both “outside directors” under Rule 16b-3 and “independent directors” under the requirements of any national securities exchange or system upon which the Shares are then listed and/or traded.

3.2 Authority of the Committee. The Committee shall have all powers and discretion necessary or appropriate to administer the Plan and to control its operation, including, but not limited to, the power (a) to determine which Employees, Consultants and Directors shall be granted Awards, (b) to prescribe the terms and conditions of such Awards, (c) to interpret the Plan and the Awards, (d) to adopt rules for the administration, interpretation and application of the Plan as are consistent therewith, and (e) to interpret, amend or revoke any such rules.

The Committee, in its sole discretion and on such terms and conditions as it may provide, may delegate all or any part of its authority and powers under the Plan to one or more directors and/or officers of the Company; provided, however, that the Committee may not delegate its authority and powers with respect to Section 16 Persons.

3.3 Decisions Binding. All determinations and decisions made by the Committee shall be final, conclusive, and binding on all persons, and shall be given the maximum deference permitted by law.

SECTION 4  
SHARES SUBJECT TO THE PLAN

4.1 Shares Available.

4.1.1 Maximum Shares Available under Plan. The aggregate number of Shares available for issuance under the Plan may not exceed 3,000,000 (three million) Shares. Such Shares may be authorized but unissued shares or treasury shares. Options or SARs with respect to no more than 500,000 (five hundred thousand) Shares may be granted to any one individual grantee during any one calendar year period.

4.1.2 Adjustments. All Share numbers in this Section 4.1 are subject to adjustment as provided in SECTION 15.

4.2 Number of Shares. The following rules will apply for purposes of the determination of the number of Shares available for grant under the Plan:

(a) While an Award is outstanding, it shall be counted against the authorized pool of Shares, regardless of its vested status.

(b) The grant of an Option or Restricted Stock shall reduce the Shares available for grant under the Plan by the number of Shares subject to such Award.

(c) The grant of a Tandem SAR shall reduce the number of Shares available for grant by the number of Shares subject to the related Option (i.e., there is no double counting of Options and their related Tandem SARs); provided, however, that, upon the exercise of such Tandem SAR, the authorized Share pool shall be credited with the appropriate number of Shares representing the number of shares reserved for such Tandem SAR less the number of Shares actually delivered upon exercise thereof or the number of Shares having a Fair Market Value equal to the cash payment made upon such exercise.

(d) The grant of an Affiliated SAR shall reduce the number of Shares available for grant by the number of Shares subject to the SAR, in addition to the number of Shares subject to the related Option; provided, however, that, upon the exercise of such Affiliated SAR, the authorized Share pool shall be credited with the appropriate number of Shares representing the number of shares reserved for such Affiliated SAR less the number of Shares actually delivered upon exercise thereof or the number of Shares having a Fair Market Value equal to the cash payment made upon such exercise.

(e) The grant of a Freestanding SAR shall reduce the number of Shares available for grant by the number of Freestanding SARs granted; provided, however, that, upon the exercise of such Freestanding SAR, the authorized Share pool shall be credited with the appropriate number of Shares representing the number of shares reserved for such Freestanding SAR less the number of Shares actually delivered upon exercise thereof or the number of Shares having a Fair Market Value equal to the cash payment made upon such exercise.

(f) The Committee shall in each case determine the appropriate number of Shares to deduct from the authorized pool in connection with the grant of Performance Units and/or Performance Shares.

(g) To the extent that an Award is settled in cash rather than in Shares, the authorized Share pool shall be credited with the appropriate number of Shares having a Fair Market Value equal to the cash settlement of the Award.

4.3 Lapsed Awards. If an Award is cancelled, terminates, expires, or lapses for any reason (with the exception of the termination of a Tandem SAR upon exercise of the related Option, or the termination of a related Option upon exercise of the corresponding Tandem SAR), any Shares subject to such Award again shall be available to be the subject of an Award.

SECTION 5  
STOCK OPTIONS

5.1 Grant of Options. Options may be granted to Employees, Consultants and Directors at any time and from time to time, as determined by the Committee in its sole discretion. The Committee, in its sole discretion, shall determine the number of Shares subject to Options granted to each Participant. The Committee may grant ISOs, NQSOs, or a combination thereof.

5.2 Award Agreement. Each Option shall be evidenced by an Award Agreement that shall specify the Option Price, the expiration date of the Option, the number of Shares to which the Option pertains, any conditions to exercise of the Option, and such other terms and conditions as the Committee, in its discretion, shall determine. The Award Agreement also shall specify whether the Option is intended to be an ISO or a NQSO.

5.3 Option Price. Subject to the provisions of this Section 5.3, the Option Price for each Option shall be determined by the Committee in its sole discretion.

5.3.1 Nonqualified Stock Options. In the case of a Nonqualified Stock Option, the Option Price shall be not less than one hundred percent (100%) of the Fair Market Value of a Share on the date that the Option is granted.

5.3.2 Incentive Stock Options. In the case of an Incentive Stock Option, the Option Price shall be not less than one hundred percent (100%) of the Fair Market Value of a Share on the date that the Option is granted; *provided, however*, that if at the time that the Option is granted, the Employee (together with persons whose stock ownership is attributed to the Employee pursuant to Section 424(d) of the Code) owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any of its Subsidiaries, the Option Price shall be not less than one hundred and ten percent (110%) of the Fair Market Value of a Share on the date that the Option is granted.

5.3.3 Substitute Options. Notwithstanding the provisions of Sections 5.3.1 and 5.3.2, in the event that the Company or an Affiliate consummates a transaction described in Section 424(a) of the Code (e.g., the acquisition of property or stock from an unrelated corporation), persons who become Employees, Consultants or Directors on account of such transaction may be granted Options in substitution for options granted by their former employer. If such substitute Options are granted, the Committee, in its sole discretion, may determine that such substitute Options shall have an exercise price less than 100% of the Fair Market Value of the Shares on the date the Option is granted.

5.4 Expiration of Options. Unless the applicable stock option agreement provides otherwise, each Option shall terminate upon the first to occur of the events listed in Section 5.4.1, subject to Section 5.4.2.

5.4.1 Expiration Dates.

- (a) The date for termination of the Option set forth in the Award Agreement;
- (b) The expiration of ten years from the date the Option was granted, or
- (c) The expiration of three months from the date of the Participant's Termination of Employment for a reason other than the Participant's death, Disability or Retirement, or
- (d) The expiration of twelve months from the date of the Participant's Termination of Employment by reason of Disability, or
- (e) The expiration of twelve months from the date of the Participant's death, if such death occurs while the Participant is in the employ or service of the Company or an Affiliate.

5.4.2 Committee Discretion. The Committee shall provide, in the terms of each individual Option, when such Option expires and becomes unexercisable. After the Option is granted, the Committee, in its discretion, may extend the post-termination exercise period, but not beyond its original term. The foregoing discretionary authority is subject to the limitations and restrictions on Incentive Stock Options set forth in Section 5.8.

5.5 Exercise of Options. Options granted under the Plan shall be exercisable at such times, and subject to such restrictions and conditions, as the Committee shall determine in its sole discretion. After an Option is granted, the Committee, in its sole discretion, may accelerate the exercisability of the Option.

5.6 Payment. The Committee shall determine the acceptable form of consideration for exercising an Option, including the method of payment. In the case of an Incentive Stock Option, the Committee shall determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of:

- (a) cash;
- (b) check;

(c) other Shares which (i) in the case of Shares acquired upon exercise of an Option, have been owned by the Participant for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which said Option shall be exercised;

(d) consideration received by the Company from a licensed broker under a cashless exercise program implemented by the Company to facilitate “same day” exercises and sales of Options;

(e) any combination of the foregoing methods of payment; or

(f) such other consideration and method of payment for the issuance of Shares to the extent permitted by applicable laws.

5.7 Restrictions on Share Transferability. The Committee may impose such restrictions on any Shares acquired pursuant to the exercise of an Option, as it may deem advisable, including, but not limited to, restrictions related to Federal securities laws, the requirements of any national securities exchange or system upon which such Shares are then listed and/or traded, and/or any blue sky or state securities laws.

#### 5.8 Certain Additional Provisions for Incentive Stock Options.

5.8.1 Exercisability. The aggregate Fair Market Value (determined at the time the Option is granted) of the Shares with respect to which Incentive Stock Options are exercisable for the first time by any Employee during any calendar year (under all plans of the Company and its Subsidiaries) shall not exceed \$100,000.

5.8.2 Termination of Employment. No Incentive Stock Option may be exercised more than three months after the Participant’s termination of employment for any reason other than Disability or death, unless (a) the Participant dies during such three-month period, and (b) the Award Agreement and/or the Committee permits later exercise. No Incentive Stock Option may be exercised more than one year after the Participant’s termination of employment on account of Disability, unless (a) the Participant dies during such one-year period, and (b) the Award Agreement and/or the Committee permit later exercise.

5.8.3 Company and Subsidiaries Only. Incentive Stock Options may be granted only to persons who are Employees of the Company and/or a Subsidiary at the time of grant.

5.8.4 Expiration. No Incentive Stock Option may be exercised after the expiration of 10 years from the date such Option was granted; provided, however, that if the Option is granted to an Employee who, together with persons whose stock ownership is attributed to the Employee pursuant to Section 424(d) of the Code, owns stock possessing more than 10% of the total combined voting power of all classes of the stock of the Company or any of its Subsidiaries, the Option may not be exercised after the expiration of 5 years from the date that it was granted.

5.9 Nontransferability of Options. No Option granted under the Plan may be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will, the laws of descent and distribution, or as provided under SECTION 9. All Options granted to a Participant under the Plan shall be exercisable during his or her lifetime only by such Participant.

## SECTION 6 STOCK APPRECIATION RIGHTS

6.1 Grant of SARs. An SAR may be granted to an Employee, Consultant or Director at any time and from time to time as determined by the Committee, in its sole discretion. The Committee may grant Affiliated SARs, Freestanding SARs, Tandem SARs, or any combination thereof. The Committee shall have complete discretion to determine the number of SARs granted to any Participant, and consistent with the provisions of the Plan, the terms and conditions pertaining to such SARs. However, the grant price of a Freestanding SAR shall be at least equal to the Fair Market Value of a Share on the date of grant. The grant price of Tandem or Affiliated SARs shall equal the Option Price of the related Option.

6.2 Exercise of Tandem SARs. Tandem SARs may be exercised for all or part of the Shares subject to the related Option upon the surrender of the right to exercise the equivalent portion of the related Option. A Tandem SAR may be exercised only with respect to the Shares for which its related Option is then exercisable.

6.2.1 ISOs. Notwithstanding any contrary provision of the Plan, with respect to a Tandem SAR granted in connection with an ISO: (i) the Tandem SAR shall expire no later than the expiration of the underlying ISO; (ii) the value of the payout with respect to the Tandem SAR shall be for no more than one hundred percent (100%) of the difference between the Option Price of the underlying ISO and the Fair Market Value of the Shares subject to the underlying ISO at the time the Tandem SAR is exercised; and (iii) the Tandem SAR shall be exercisable only when the Fair Market Value of the Shares subject to the ISO exceeds the Option Price of the ISO.

6.3 Exercise of Affiliated SARs. An Affiliated SAR shall be deemed to be exercised upon the exercise of the related Option. The deemed exercise of an Affiliated SAR shall not necessitate a reduction in the number of Shares subject to the related Option.

6.4 Exercise of Freestanding SARs. Freestanding SARs shall be exercisable on such terms and conditions as the Committee, in its sole discretion, shall determine.

6.5 SAR Agreement. Each SAR shall be evidenced by an Award Agreement that shall specify the grant price, the term of the SAR, the conditions of exercise, and such other terms and conditions as the Committee, in its sole discretion, shall determine.

6.6 Expiration of SARs. An SAR granted under the Plan shall expire upon the date determined by the Committee, in its sole discretion, and set forth in the Award Agreement. Notwithstanding the foregoing, the rules of Section 5.4 (pertaining to Options) also shall apply to SARs.

6.7 Payment of SAR Amount. Upon exercise of an SAR, a Participant shall be entitled to receive payment from the Company in an amount determined by multiplying:

- (a) The difference between the Fair Market Value of a Share on the date of exercise over the grant price; times
- (b) The number of Shares with respect to which the SAR is exercised.

At the discretion of the Committee, the payment upon SAR exercise may be in cash, in Shares of equivalent value, or in some combination thereof.

6.8 Nontransferability of SARs. No SAR granted under the Plan may be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will, the laws of descent and distribution, or as permitted under SECTION 9. An SAR granted to a Participant shall be exercisable during the Participant's lifetime only by such Participant.

## SECTION 7 RESTRICTED STOCK

7.1 Grant of Restricted Stock. Subject to the terms and provisions of the Plan, the Committee, at any time and from time to time, may grant Shares of Restricted Stock to Employees, Consultants or Directors in such amounts as the Committee, in its sole discretion, shall determine.

7.2 Restricted Stock Agreement. Each Award of Restricted Stock shall be evidenced by an Award Agreement that shall specify the Period of Restriction, the number of Shares granted, and such other terms and conditions as the Committee, in its sole discretion, shall determine. Unless the Committee determines otherwise, shares of Restricted Stock shall be held by the Company as escrow agent until the restrictions on such Shares have lapsed.

7.3 Transferability. Except as provided in this SECTION 7, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction. All rights with respect to the Restricted Stock granted to a Participant under the Plan shall be available during his or her lifetime only to such Participant.

7.4 Other Restrictions. The Committee, in its sole discretion, may impose such other restrictions on any Shares of Restricted Stock as it may deem advisable including, without limitation, restrictions based upon the achievement of specific performance goals (Company-wide, divisional, and/or individual), and/or restrictions under applicable Federal or state securities laws; and may legend the certificates representing Restricted Stock to give appropriate notice of such restrictions. For example, the Committee may determine that some or all certificates representing Shares of Restricted Stock shall bear the following legend:

“The sale or other transfer of the shares of stock represented by this certificate, whether voluntary, involuntary, or by operation of law, is subject to certain restrictions on transfer as set forth in the Arrowhead Research Corporation 2004 Equity Incentive Plan, and in a Restricted Stock Agreement. A copy of the Plan and such Restricted Stock Agreement may be obtained from the Secretary of Arrowhead Research Corporation.”

7.5 Removal of Restrictions. Except as otherwise provided in this SECTION 7, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan shall be released from escrow as soon as practicable after the last day of the Period of Restriction. The Committee, in its discretion, may accelerate the time at which any restrictions shall lapse, and/or remove any restrictions. After the restrictions have lapsed, the Participant shall be entitled to have any legend or legends under Section 7.4 removed from his or her Share certificate, and the Shares shall be freely transferable by the Participant.

7.6 Voting Rights. During the Period of Restriction, Participants holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Committee determines otherwise.

7.7 Dividends and Other Distributions. During the Period of Restriction, Participants holding Shares of Restricted Stock shall be entitled to receive all dividends and other distributions paid with respect to such Shares, unless otherwise provided in the Award Agreement. If any such dividends or distributions are paid in Shares, the Shares shall be subject to the same restrictions on transferability and forfeitability as the Shares of Restricted Stock with respect to which they were paid.

7.8 Return of Restricted Stock to Company. Subject to the applicable Award Agreement and Section 7.5, upon the earlier of (a) the Participant’s Termination of Employment, or (b) the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed shall revert to the Company and, subject to Section 4.3, again shall become available for grant under the Plan.

7.9 Repurchase Option. Unless the Committee determines otherwise, the Restricted Stock Purchase Agreement shall grant the Company a repurchase option exercisable upon the voluntary or involuntary termination of the Participant’s service with the Company for any reason (including death or Disability). The purchase price for Shares repurchased pursuant to the Restricted Stock Purchase Agreement shall be the original price paid by the Participant and may be paid by cancellation of any indebtedness of the Participant to the Company. The repurchase option shall lapse at a rate determined by the Committee.

## SECTION 8 PERFORMANCE UNITS AND PERFORMANCE SHARES

8.1 Grant of Performance Units/Shares. Performance Units and Performance Shares may be granted to Employees, Consultants or Directors at any time and from time to time, as shall be determined by the Committee, in its sole discretion. The Committee shall have complete discretion in determining the number of Performance Units and Performance Shares granted to each Participant.

8.2 Value of Performance Units/Shares. Each Performance Unit shall have an initial value that is established by the Committee at the time of grant. Each Performance Share shall have an initial value equal to the Fair Market Value of a Share on the date of grant. The Committee shall set performance goals in its discretion which, depending on the extent to which they are met, will determine the number and/or value of Performance Units/Shares that will be paid out to the Participants. The time period during which the performance goals must be met shall be called the “Performance Period”.

8.3 Earning of Performance Units/Shares. After the applicable Performance Period has ended, the holder of Performance Units/Shares shall be entitled to receive a payout of the number of Performance Units/Shares earned by the Participant over the Performance Period, to be determined as a function of the extent to which the corresponding performance goals have been achieved. After the grant of a Performance Unit/Share, the Committee, in its sole discretion, may adjust and/or waive the achievement of any performance goals for such Performance Unit/Share.

8.4 Form and Timing of Payment of Performance Units/Shares. Payment of earned Performance Units/Shares shall be made as soon as practicable after the expiration of the applicable Performance Period. The Committee, in its sole discretion, may pay earned Performance Units/Shares in the form of cash, in Shares (which have an aggregate Fair Market Value equal to the value of the earned Performance Units/Shares at the close of the applicable Performance Period) or in a combination thereof.

8.5 Cancellation of Performance Units/Shares. Subject to the applicable Award Agreement, upon the earlier of (a) the Participant's Termination of Employment, or (b) the date set forth in the Award Agreement, all remaining Performance Units/Shares shall be forfeited by the Participant to the Company, and subject to Section 4.3, the Shares subject thereto shall again be available for grant under the Plan.

8.6 Nontransferability. Performance Units/Shares may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will, the laws of descent and distribution, or as permitted under SECTION 9. A Participant's rights under the Plan shall be exercisable during the Participant's lifetime only by the Participant or the Participant's legal representative.

## SECTION 9 BENEFICIARY DESIGNATION

If permitted by the Committee, a Participant may name a beneficiary or beneficiaries to whom any unpaid vested Award shall be paid in event of the Participant's death. Each such designation shall revoke all prior designations by the same Participant and shall be effective only if given in a form and manner acceptable to the Committee. In the absence of any such designation, benefits remaining unpaid at the Participant's death shall be paid to the Participant's estate and, subject to the terms of the Plan, any unexercised vested Award may be exercised by the Committee or executor of the Participant's estate.

## SECTION 10 DEFERRALS

The Committee, in its sole discretion, may permit a Participant to defer receipt of the payment of cash or the delivery of Shares that would otherwise be due to such Participant under an Award. Any such deferral elections shall be subject to such rules and procedures as shall be determined by the Committee in its sole discretion.

## SECTION 11 RIGHTS OF EMPLOYEES AND CONSULTANTS

11.1 No Effect on Employment or Service. Nothing in the Plan shall interfere with or limit in any way the right of the Company to terminate any Participant's employment or service at any time, with or without cause.

11.2 Participation. No Employee, Consultant or Director shall have the right to be selected to receive an Award under this Plan, or, having been so selected, to be selected to receive a future Award.

## SECTION 12 AMENDMENT, SUSPENSION, OR TERMINATION

The Board, in its sole discretion, may alter, amend or terminate the Plan, or any part thereof, at any time and for any reason. However, as required by Applicable Laws, no alteration or amendment shall be effective without further stockholder approval. Neither the amendment, suspension, nor termination of the Plan shall, without the consent of the Participant, alter or impair any rights or obligations under any Award theretofore granted. No Award may be granted during any period of suspension nor after termination of the Plan.

## SECTION 13 TAX WITHHOLDING

13.1 Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award, the Company shall have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy Federal, state, and local taxes required to be withheld with respect to such Award.

13.2 *Shares Withholding*. The Committee, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy the minimum statutory tax withholding obligation, in whole or in part, by delivering to the Company Shares already owned for more than six (6) months having a value equal to the amount required to be withheld. The value of the Shares to be delivered will be based on their Fair Market Value on the date of delivery.

#### SECTION 14 INDEMNIFICATION

Each person who is or shall have been a member of the Committee, or of the Board, shall be indemnified and held harmless by the Company against and from any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, notion, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan or any Award Agreement and against and from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such action, suit, or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Certificate of Incorporation or Bylaws, as a matter of law, or otherwise, or any power that the Company may have to indemnify them or hold them harmless.

#### SECTION 15 ADJUSTMENTS UPON CHANGES IN CAPITALIZATION, DISSOLUTION, MERGER OR ASSET SALE

15.1 *Changes in Capitalization; No Award Repricing*. Subject to any required action by the shareholders of the Company, the number of Shares covered by each outstanding Award, and the number of Shares which have been authorized for issuance under the Plan but as to which no Awards have yet been granted or which have been returned to the Plan upon cancellation or expiration of an Award, as well as the price per Share covered by each such outstanding Award, shall be proportionately adjusted for any increase or decrease in the number of issued Shares resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Shares, or any other increase or decrease in the number of issued Shares effected without receipt of consideration by the Company; *provided, however*, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of Shares subject to an Award.

15.2 *Dissolution or Liquidation*. In the event of the proposed dissolution or liquidation of the Company, the Committee shall notify each Participant as soon as practicable prior to the effective date of such proposed transaction. The Committee in its discretion may provide for a Participant to have the right to exercise his or her Award until ten (10) days prior to such transaction as to all of the Shares covered thereby, including Shares as to which the Award would not otherwise be exercisable. In addition, the Committee may provide that any Company repurchase option applicable to any Shares purchased upon exercise of an Award shall lapse as to all such Shares, provided the proposed dissolution or liquidation takes place at the time and in the manner contemplated. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

15.3 *Merger or Asset Sale*. In the event of a merger of the Company with or into another corporation, or the sale of substantially all of the assets of the Company, each outstanding Award shall be assumed or an equivalent option or right substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the successor corporation refuses to assume or substitute for the Award, the Participant shall fully vest in and have the right to exercise the Award as to all of the Shares as to which it would not otherwise be vested or exercisable. If an Award becomes fully vested and exercisable in lieu of assumption or substitution in the event of a merger or sale of assets, the Committee shall notify the Participant in writing or electronically that the Award shall be fully vested and exercisable for a period of fifteen (15) days from the date of such notice, and the Award shall

terminate upon the expiration of such period. For the purposes of this paragraph, the Award shall be considered assumed if, following the merger or sale of assets, the option or right confers the right to purchase or receive, for each Share subject to the Award immediately prior to the merger or sale of assets, the consideration (whether stock, cash, or other securities or property) received in the merger or sale of assets by holders of Shares for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or sale of assets is not solely common stock of the successor corporation or its Parent, the Committee may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Award, for each Share subject to the Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Shares in the merger or sale of assets.

15.4 Change in Control. In the event of a Change of Control (as defined below), except as otherwise determined by the Board, the Participant shall fully vest in and have the right to exercise the Awards as to all of the Shares, including Shares as to which it would not otherwise be vested or exercisable. If an Award becomes fully vested and exercisable as the result of a Change of Control, the Committee shall notify the Participant in writing or electronically prior to the Change of Control that the Award shall be fully vested and exercisable for a period of fifteen (15) days from the date of such notice, and the Award shall terminate upon the expiration of such period. For purposes of this Agreement, a "Change of Control" means the happening of any of the following events:

(a) When any "person," as such term is used in Sections 13(d) and 14(d) of the Exchange Act (other than the Company, a Subsidiary or a Company employee benefit plan, including any trustee of such plan acting as trustee) is or becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities entitled to vote generally in the election of directors; or

(b) Consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation, or the stockholders of the Company approve an agreement for the sale or disposition by the Company of all or substantially all the Company's assets; or

(c) A change in the composition of the Board of Directors of the Company, as a result of which fewer than a majority of the directors are Incumbent Directors. "Incumbent Directors" shall mean directors who either (A) are directors of the Company as of the date the Plan is approved by the stockholders, or (B) are elected, or nominated for election, to the Board of Directors of the Company with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination (but shall not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to the Company).

## SECTION 16 CONDITIONS UPON ISSUANCE OF SHARES

16.1 Legal Compliance. Shares shall not be issued pursuant to the exercise of an Award unless the exercise of such Award and the issuance and delivery of Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.

16.2 Investment Representations. As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

SECTION 17  
INABILITY TO OBTAIN AUTHORITY

The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

SECTION 18  
RESERVATION OF SHARES

The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

SECTION 19  
LEGAL CONSTRUCTION

19.1 Gender and Number. Except where otherwise indicated by the context, any masculine term used herein also shall include the feminine; the plural shall include the singular and the singular shall include the plural.

19.2 Severability. In the event any provision of the Plan shall be held illegal or invalid for any reason, such illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

19.3 Requirements of Law. The granting of Awards and the issuance of Shares under the Plan shall be subject to all Applicable Laws.

19.4 Securities Law Compliance. With respect to Section 16 Persons, transactions under this Plan are intended to comply with all applicable conditions of Rule 16b-3. To the extent any provision of the Plan, Award Agreement or action by the Committee fails to so comply, it shall be deemed null and void, to the extent permitted by law and deemed advisable by the Committee.

19.5 Governing Law. The Plan and all Award Agreements shall be construed in accordance with and governed by the laws of the State of Delaware.

19.6 Captions. Captions are provided herein for convenience only, and shall not serve as a basis for interpretation or construction of the Plan.



**Important notice regarding the Internet availability of  
proxy materials for the Annual Meeting of shareholders.  
The Notice of the 2013 Annual Meeting of Stockholders; Company's 2013  
Proxy Statement; Company's Annual Report on Form 10-K for the year ended  
September 30, 2012; and Form of Proxy Card are available at:  
[www.edocumentview.com/ARWR](http://www.edocumentview.com/ARWR)**

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



**Arrowhead Research**  
CORPORATION

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**Proxy — ARROWHEAD RESEARCH CORPORATION**

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**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS  
ANNUAL MEETING OF STOCKHOLDERS  
THURSDAY, MARCH 21, 2013**

The undersigned stockholder of ARROWHEAD RESEARCH CORPORATION, a Delaware corporation, hereby acknowledges receipt of the Notice of Annual Meeting of Stockholders and Proxy Statement, each dated February 4, 2013, and hereby appoints Christopher Anzalone and Jane Davidson, or any of them, proxies and attorneys-in-fact with full power to each of substitution, on behalf and in the name of the undersigned, to represent the undersigned at the Annual Meeting of Stockholders of Arrowhead Research Corporation to be held on Thursday, March 21, 2013 at 10:00 a.m., local time, at the Sheraton Pasadena, 303 E. Cordova Street, Pasadena, California 91101 and at any adjournment or adjournments thereof, and to vote all shares of capital stock that the undersigned would be entitled to vote if then and there personally present, on the matters set forth on the reverse side.

This Proxy, when properly executed, will be voted in the manner directed herein by the undersigned stockholder. If no direction is made, this proxy will be voted FOR the election of each director, IN FAVOR of Proposals 2, 3 and 5, and "3 Years" on Proposal 4 and as the proxy holders deem advisable on such other matters as may properly come before the meeting. This Proxy is revocable with respect to any Proposal in the manner set forth in the Proxy Statement under the heading "Revocability of Proxies."