

**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:

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ARROWHEAD RESEARCH CORPORATION  
225 SOUTH LAKE AVENUE, SUITE 300  
PASADENA, CALIFORNIA 91101

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NOTICE OF ANNUAL MEETING OF STOCKHOLDERS  
TO BE HELD ON THURSDAY, FEBRUARY 16, 2012

TO THE STOCKHOLDERS OF ARROWHEAD RESEARCH CORPORATION:

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of Arrowhead Research Corporation, a Delaware corporation (the “**Company**”), will be held on February 16, 2012, 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 (6) 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 under Nasdaq Marketplace Rules the issuance of shares of Common Stock to Roche Finance Ltd. in connection with our prior acquisition of Roche’s RNAi business;
3. To approve under Nasdaq Marketplace Rules the issuance of up to 275,782 shares of Common Stock upon conversion of our outstanding Series A Preferred Stock;
4. To approve under Nasdaq Marketplace Rules the issuance of Common Stock pursuant to a \$15,000,000 equity-based line of credit, to the extent such issuance could result in the Company’s issuing more than twenty percent (20%) of the issued and outstanding Common Stock of the Company;
5. 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 1,000,000 shares to 2,000,000 shares; and
6. To ratify the selection of Rose, Snyder & Jacobs as independent auditors of the Company for the fiscal year ending September 30, 2012;

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 (6) 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 10, 2012, 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

Jane Davidson  
Secretary

Pasadena, California  
January 11, 2012

**Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting To Be Held on Thursday, February 16, 2012**

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

Notice of the 2012 Annual Meeting of Stockholders;  
Company’s 2012 Proxy Statement;  
Company’s Annual Report on Form 10-K for the year ended September 30, 2011; and  
Form of Proxy Card

**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.**

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**ARROWHEAD RESEARCH CORPORATION**  
**225 South Lake Avenue, Suite 300**  
**Pasadena, California 91101**  
**(626) 304-3400**

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**PROXY STATEMENT FOR ANNUAL MEETING OF STOCKHOLDERS**  
**TO BE HELD ON THURSDAY, FEBRUARY 16, 2012**

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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 Annual Meeting of Stockholders (the “**Annual Meeting**”) to be held on February 16, 2012, 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 January 17, 2012, 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 10, 2012 (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 10,525,941 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.

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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 and are also treated as shares entitled to vote at the Annual Meeting (the "**Votes Cast**") 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 Votes Cast is required for approval. 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 2013 Annual Meeting of Stockholders must ensure that the proposal is received by the Corporate Secretary at Arrowhead Research Corporation, 225 South Lake Avenue, Suite 300, Pasadena, CA 91101, not later than September 19, 2012, 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 2012 Annual Meeting; *provided, however*, that if the 2013 annual meeting date is advanced by more than 30 days before or delayed by more than 60 days after the anniversary date of the 2012 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 (6) persons as directors to serve until their successors have been duly elected. Each of the nominees is currently a director of Arrowhead. Except as set forth 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 (6) nominees receiving the greatest numbers of votes at the meeting will be elected to the six (6) director positions. Unless otherwise instructed, the proxy holders will vote the proxies received by them for the Board's six (6) 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. R. Bruce Stewart, our current Chairman of the Board, has elected to retire from the Board after his current term expires at the Annual Meeting. Accordingly, Mr. Stewart has not been nominated for reelection.

**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	42	Chief Executive Officer & President, Director
Edward W. Frykman*	75	Director
Charles P. McKenney*	72	Director
Mauro Ferrari**	52	Director
Douglas Given	58	Director
Michael S. Perry*	52	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 cancer 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 investment, 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** was appointed to the Arrowhead Board of Directors in 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 start-up. 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

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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 startup companies.

**Edward W. Frykman** has been a director of the Company since January 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 was a director in Arrowhead’s predecessor company since its inception in May 2003 until January 2004, when he became a director of the Company. 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 MD with honors and a PhD 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** was appointed to the Company’s Board of Directors on December 19, 2011. Dr. Perry has been a Venture Partner with Bay City Capital LLP since 2005. Dr. Perry was appointed President and Chief Medical Officer of Poniard Pharmaceuticals in 2010. 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

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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, due to the familial relationship between Drs. Bruce Given, the Company's Chief Operating Officer, and Douglass Given. Independent directors do not receive consulting, legal 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 periodically 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 NASDAQ, 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 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.

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## 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 300, 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 nine meetings during the fiscal year ended September 30, 2011. The Board has three standing committees: an Audit Committee, a Compensation Committee, and a Nomination Committee. Current committee members are listed below.

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 and 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 nine times during fiscal 2011. The current members of the Audit Committee are Edward W. Frykman, Chairman, Charles P. McKenney, and Michael S. Perry, who joined the committee on December 22, 2011. 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 Stock Market. 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 Chief Executive Officer ("CEO") for the prior year and approve the goals of 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**") and the 2000 Stock Option Plan (the "**2000 Option Plan**"). The Compensation Committee is specifically responsible for determining the compensation of the CEO. 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 2011, but may do so in the future. The Compensation Committee met five times during fiscal 2011. The current members of the Compensation Committee are Michael Perry, Chairman, Edward Frykman, Charles P. McKenney, and Mauro Ferrari. Dr. Perry joined the committee on December 22, 2011. The Board has determined that all members of the Compensation Committee are independent directors under the Rules of the SEC and the listing standards of The Nasdaq Stock Market. 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 to anyone else.

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 twice during fiscal 2011. The current members of the Nomination Committee are Michael Perry, Chairman, Edward Frykman, Charles P. McKenney and Mauro Ferrari. Dr. Perry joined the committee on December 22, 2011. 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 a new member(s) and, if so, the appropriate skills and characteristics required for the new member(s). 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 2011, and (ii) the total number of meetings held by all committees of the Board during fiscal 2011 on which such person served.

In addition, all directors, except Mauro Ferrari, attended the 2011 Annual Meeting of Stockholders. It is the Company's policy to encourage, but not require, that all directors attend our annual stockholder meetings.

### FISCAL 2011 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 \$20,000 per year. Additionally, non-employee directors who have served on the Board for at least six months receive an automatic grant of non-qualified stock options to purchase 4,000 shares of Common Stock upon re-election each year. The Compensation Committee has determined that current director compensation is below the 50<sup>th</sup> percentile among peer companies and, accordingly, the Compensation Committee expects to reassess levels of non-employee director compensation in 2012. Based on the policies of their current employers, Drs. Ferrari and Given have waived their right to receive cash compensation and have waived their right to receive stock option grants. 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 2011.

Name	Fee Earned or Paid in Cash (S) (1)	Option Awards (S) (2) (3)	Total (S)
Bruce Stewart (4)	\$ —	\$ —	\$ —
Edward Frykman	\$ 20,000	\$15,020	\$35,020
Charles McKenney	\$ 20,000	\$15,020	\$35,020
Mauro Ferrari	\$ —	\$ —	\$ —
Douglass Given	\$ —	\$ —	\$ —

- (1) Each non-employee director received \$5,000 per quarter for his service as a director. There are no additional payments for being a member of a committee. Mr. Ferrari and Mr. Given have declined to receive cash compensation.

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- (2) Amounts shown do not reflect compensation actually received by directors. This column represents the total grant date fair value, computed in accordance with ASC 718, of stock options granted during fiscal year 2011. The assumptions used to calculate the value of option awards are set forth under Note 7 to the Consolidated Financial Statements included in our Annual Reports on Form 10-K for the year ended September 30, 2011.
  - (3) Annual option grant to non-employee directors vest one year from date of grant. At September 30, 2011, Mr. Frykman had outstanding option grants to purchase 30,500 shares at prices ranging from \$4.90 to \$20.20; Mr. McKenney had outstanding option grants to purchase 28,000 shares at prices ranging from \$4.90 to \$20.20; and Mr. Ferrari had outstanding option grants to purchase 24,843 shares at prices ranging from \$9.60 to \$28.70.
  - (4) Excludes \$50,000 paid to Mr. Stewart in his role as Executive Chairman of the Company.

**Vote Required; Recommendation of the Board**

The six (6) nominees receiving the greatest numbers of votes at the meeting, assuming a quorum is present, will be elected to the six (6) 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.**

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**PROPOSAL TWO**  
**APPROVAL OF THE ISSUANCE OF ADDITIONAL SHARES TO ROCHE FINANCE LTD. PURSUANT TO AN ACQUISITION BY THE COMPANY OF ROCHE'S RNAi BUSINESS**

**Background**

On October 21, 2011, the Company entered into a stock and asset purchase agreement and related agreements with Hoffmann-La Roche Inc. and F. Hoffmann-La Roche Ltd (collectively, "Roche"), pursuant to which the Company purchased Roche's RNAi business (the "Roche Transaction"). In consideration for the acquisition, the Company issued to Roche a promissory note with a principal value of \$50,000 and 901,702 shares of Common Stock. Additionally, the Company agreed that, subject to stockholder approval under the Nasdaq Marketplace Rules, the Company would issue an additional 146,562 shares of common stock, plus a number of additional shares equal to 9.9% of the shares of common stock (or common stock equivalents) sold by the Company in capital raising transactions within one year from the closing, but only with respect to the first \$3,118,615 of gross offering proceeds (the "Top-up Shares"). Assuming the offering and sale of \$3,118,615 shares of Common Stock at an offering price of \$4.25, which was the market value of the Company's common stock on December 29, 2011, the number of Top-up Shares equal 219,207 shares of common stock, which represents approximately 2% of our outstanding shares. If the weighted average price at which we offer and sell shares is below \$4.25 per share, then the total number of Top-up Shares would be greater; if the weighted average price at which we offer and sell shares is above \$4.25 per share, then the total number of Top-up Shares would be less. If the stockholders do not approve this Proposal Two and the Company is prohibited from issuing the Top-up Shares, then the Company must instead pay the cash value of the Top-up Shares, based on the then-current fair value of such shares.

For companies listed on the Nasdaq Stock Market, stockholder approval is required if the listed company issues more than 20% of the Company's outstanding shares of common stock in connection with an acquisition of a business. At the effective date of the Roche Transaction, and other related financings, the Company did not issue more than 20% of its outstanding Common Stock. However, if the Company issues the Top-up Shares, the issuance would result in the issuance by the Company of more than 20% of the Company's outstanding Common Stock in combination with the other issuances related to the Roche Transaction. Accordingly, the Company is seeking stockholder approval for the issuance of the Top-up Shares.

**Stockholder Approval Requirement for the Proposal**

Our common stock is listed on the Nasdaq Capital Market, and we are subject to the Nasdaq listing standards set forth in its Marketplace Rules. Although we were not required to obtain stockholder approval in connection with the acquisition of Roche's RNAi business, we are required under Marketplace Rule 5635(a) to seek stockholder approval for the issuance of the Top-up Shares.

NASDAQ Marketplace Rule 5635(a) requires stockholder approval prior to the issuance of securities in connection with the acquisition of the stock or assets of another company, including a private placement in which the proceeds are used to fund such an acquisition, where due to the present issuance of common stock (or securities convertible into or exercisable for common stock), other than a public offering for cash, the common stock to be issued (a) is or will be in excess of 20% of the outstanding common stock prior to the issuance or (b) constitutes the issuance of voting power in excess of 20% of the outstanding voting power prior to the issuance. Because the total number of shares issued by us in connection with the Roche Transaction and related financing transactions did not exceed 20% at the time of closing, we were not required to seek stockholder approval for the transaction. However, if the Company issues the Top-up Shares, the issuance will result in the issuance by the Company of more than 20% of the Company's outstanding Common Stock in combination with the other issuances related to the Roche Transaction, which requires stockholder approval under Nasdaq rules.

**Effect of Failure to Obtain Stockholder Approval**

If the stockholders do not approve Proposal Two, then the Company will be obligated to pay to Roche Finance Ltd. the cash value of the Top-up Shares. The amount of the payment will be based on the fair market value of the Top-up Shares required to be issued as of October 21, 2012, which per-share value could be more or less than our current market price, and will decrease the Company's cash resources available for the development of our programs.

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**Effect of Stockholder Approval**

If the stockholders approve Proposal Two, the Company will issue 146,562 shares of common stock, plus a number of additional shares equal to 9.9% of the shares of common stock (or common stock equivalents) sold by the Company in capital raising transactions within one year from the closing of the Roche Transaction. The additional issuance will result in dilution to our stockholders, estimated to be 2% of the Company's outstanding shares, based on the market value of our common stock as of December 29, 2011. Subject to stockholder approval of Proposal Two at the Annual Meeting, the Top-up Shares will be issued on October 22, 2012.

**Approval Required**

Under Nasdaq Rules, Proposal Two must be approved by a majority of Votes Cast, 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.

**Recommendation of the Board**

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

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**PROPOSAL THREE**  
**APPROVAL OF THE ISSUANCE OF SHARES OF COMMON STOCK UPON CONVERSION OF**  
**SERIES A PREFERRED STOCK**

**Background**

We are submitting Proposal Three to you as a result of our issuance on October 21, 2011 of 1,015 shares of non-voting Series A Preferred with a stated value of \$1,000 per share to certain accredited investors in connection with the Roche Transaction. The price of the Series A Preferred was determined through negotiations with the investors. We used the proceeds from the sale of the Series A Preferred to partially finance the operations of a facility included in our acquisition of Roche's RNAi business. Approval of Proposal Three by our stockholders at the Annual Meeting will result in the mandatory conversion of the 1,015 shares of Series A Preferred into approximately 267,105 shares of common stock, plus any shares of common stock that are issuable pursuant to dividends on the Series A Preferred, subject to a 19.99% beneficial ownership limit, which is not expected to be applicable based on the current levels of ownership of our Series A Preferred holders.

We issued the Series A Preferred in connection with our acquisition of the Roche RNAi business because this form of financing provided timely access to the requisite capital at prices that we believe were competitive. Alternative sources of equity could have potentially been obtained, but at a risk of delaying completion of the Roche Transaction. The investors in this offering agreed to accept Series A Preferred in lieu of common stock, provided that we use our reasonable best efforts to obtain stockholder approval of the conversion of the Series A Preferred into common stock. We are now asking you for this approval.

**Differences in the Terms of the Series A Preferred and Common Stock**

The table below summarizes the material differences in the terms of the Series A Preferred and our common stock. For a more detailed description of the terms of the Series A Preferred, please see the section below entitled "**Material Terms of the Series A Preferred**" below.

<u>Term</u>	<u>Series A Preferred</u>	<u>Common Stock</u>
Dividends	10% cumulative dividend per annum, accruing semi-annually through the date of Stockholder Approval payable in additional shares of Series A Preferred Stock. For any other dividends or distributions by the Corporation, Holders of Series A Preferred Stock will participate with the holders of Common Stock on an as-converted basis.	Paid when, as and if, declared from time to time by the Board of Directors.
Conversion	Upon receipt of stockholder approval, each share of Series A Preferred will automatically convert into 263.15 shares of common stock, subject to a 19.99% beneficial ownership conversion limit, per stockholder.	Not applicable.
Liquidation Preference	Paid \$1,000 per share in preference to common stock and any other junior securities.	No liquidation preference.
Voting	No voting rights except as required by applicable law and as set forth in the Certificate of Designation.	Entitled to vote on all matters generally submitted to the Company's stockholders.

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**Effect of Failure to Obtain Stockholder Approval**

If the stockholders do not approve Proposal Three, then the 1,015 shares of outstanding Series A Preferred cannot be converted into common stock and they will remain outstanding. As long as the shares of Series A Preferred are outstanding, they will continue to accrue a 10% dividend payable in additional shares of Series A Preferred. Accordingly, as long as the Series A Preferred remains outstanding, more shares of Series A Preferred will be continue to accrue and be issued on a semi-annual basis (and consequently, shares of common stock issuable upon conversion of the Series A Preferred). We also expect that we will continue to see stockholder approval for the conversion of the Series A Preferred at subsequent stockholder meetings.

A copy of the Certificate of Designation of the Series A Preferred is included in this Proxy Statement as Annex A. For a detailed description of the terms of the Series A Preferred, please see “**Material Terms of the Series A Preferred**” below.

**Effect of Stockholder Approval**

If the stockholders approve the mandatory conversion of the Series A Preferred into shares of common stock at the Annual Meeting, the existing 1,015 shares of Series A Preferred will be automatically converted into Common Stock at the Annual Meeting, subject to a 19.99% beneficial ownership limit for individual stockholders, together with any accrued dividends. Based on accrued but unpaid dividends as of the date of the Annual Meeting, a total of 275,782 shares of common stock would be issued upon the conversion of the Series PA Preferred, if the stockholders approve this Proposal Three. After the conversion of the Series A Preferred, we will no longer be obligated to pay the semi-annual stock dividend on those shares.

**Stockholder Approval Requirement for the Proposal**

Our common stock is listed on the Nasdaq Capital Market and we are subject to the Nasdaq listing standards set forth in its Marketplace Rules. Although we were not required to obtain stockholder approval in connection with the issuance of the Series A Preferred or the acquisition of Roche’s RNAi business, we are required under Marketplace Rule 5635(a) to seek stockholder approval for the conversion of the Series A Preferred into common stock.

NASDAQ Marketplace Rule 5635(a) requires stockholder approval prior to the issuance of securities in connection with the acquisition of the stock or assets of another company, including a private placement in which the proceeds are used to fund such an acquisition, where due to the present issuance of common stock (or securities convertible into or exercisable for common stock), other than a public offering for cash, the common stock to be issued (a) is or will be in excess of 20% of the outstanding common stock prior to the issuance or (b) constitutes voting power in excess of 20% of the outstanding voting power prior to the issuance. The proceeds received by us from the issuance of the Series A Preferred were used to partially fund the operations of a facility acquired in the Roche Transaction. Because the Series A Preferred, by its terms, does not vote on matters presented to the holders of our common stock, we were not required to obtain stockholder approval for the issuance of the Series A Preferred. However, the conversion of the Series A Preferred will result in the issuance by the Company of more than 20% of the Company’s outstanding Common Stock in combination with the other issuances related to the Roche Transaction, which requires stockholder approval under Nasdaq rules.

Upon stockholder approval of Proposal Three at the Annual Meeting, the Series A Preferred will automatically convert into approximately 275,782 shares of common stock, which represents approximately 2.6% of our outstanding Common Stock as of the Record Date.

**Material Terms of the Series A Preferred**

The following summary of the material terms of the Series A Preferred is qualified in its entirety by the Certificate of Designation of the Series A Preferred included in this Proxy Statement as Annex A. Capitalized terms used in this summary but not defined are used as defined in the Certificate of Designations.

***Dividends***

Holders of Series A Preferred shall be entitled to receive a cumulative dividend of 10% of the Face Amount per annum, which will accrue semi-annually with respect to each share of Series A Preferred, from the applicable date of issue through the date of stockholder approval, and will be paid on June 30 and December 31 of each year in

preference to any dividends to be paid on the Common Stock or any Junior Securities (as defined below). Such dividends shall be payable in additional shares of Series A Preferred Stock valued for this purpose at the Face Amount; *provided, however*, that if such additional shares of Series A Preferred Stock are not legally available for the payment of dividends on the Series A Preferred Stock, such dividends shall, effective on the close of business on a dividend payment date with respect to an unpaid dividend, accrete to, and increase, the Face Amount of the Series A Preferred Stock. If any such cumulative dividends would result in the issuance of a fractional share of Series A Preferred Stock, the Corporation shall issue a fractional share therefor, rounded to the nearest 1/1000<sup>th</sup> of a share. For the avoidance of doubt, in the event of a conversion that occurs between semi-annual accrual dates, dividends shall be deemed to accrue through the date of such conversion, even if such accrual is less than a full semi-annual dividend period. For any other dividends or distributions by the Corporation, Holders of Series A Preferred Stock will participate with the holders of Common Stock on an as-converted basis.

**Conversion**

**Conversion at the Option of the Holder.** Subject to receiving stockholder approval at the Annual Meeting, each holder of shares of Series A Preferred Stock may, at any time and from time to time, convert (an “Optional Conversion”) each of its shares of Series A Preferred Stock into a number of fully paid and non-assessable shares of Common Stock determined in accordance with the following formula:

$$\frac{\text{Face Amount}}{\text{Conversion Price}}$$

provided, however, that Series A Preferred shall automatically convert into Common Stock if stockholders approve Proposal Three. If stockholder approval is received, then all of the shares of Series A Preferred Stock shall automatically convert with no further action required by the holders of Series A Preferred.

**Limitations on Conversions.** In no event shall any holder of shares of Series A Preferred Stock have the right to convert shares of Series A Preferred Stock into shares of Common Stock (x) to the extent that such issuance or sale or right to effect such conversion would result in the holder or any of its affiliates together Beneficially Owning more than 19.99% of the then issued and outstanding shares of Common Stock or (y) if such holder or any of its affiliates together Beneficially Own more than 19.99% of the then issued and outstanding Common Stock immediately prior to such purported issuance, sale, transfer or conversion. The restriction contained in this Paragraph C, may not be waived. To the Company’s knowledge as of the Record Date, no holder of Series A Preferred would be subject to this conversion limitation, based on the number of shares of Common Stock that would be issued as of the Annual Meeting if this Proposal Three is approved.

The table below illustrates the approximate impact of the Series A Preferred accumulating rate of return if stockholder approval for the conversion is obtained at the Annual Meeting on February 16, 2012 as compared to February 16, 2013:

Series A Preferred Conversion Stockholder Approval Date	Shares of Common Stock Issuable Upon Conversion of the Series A Preferred
February 16, 2012	275,782
February 16, 2013	304,129

**Liquidation**

If the Corporation, (i) shall liquidate, dissolve or wind up, (ii) enters into a merger or consolidation (other than one in which stockholders of the Corporation own a majority by voting power of the outstanding shares of the surviving or acquiring corporation); or (iii) sell, lease, transfer or other disposition of all or substantially all of the assets of the Corporation; each (a “Deemed Liquidation Event”), then in each case, no distribution shall be made to the holders of any shares of capital stock of the Corporation (other than Senior Securities pursuant to the rights, preferences and privileges thereof) upon liquidation, dissolution or winding up unless prior thereto the holders of shares of Series A Preferred Stock shall have received the Liquidation Preference with respect to each share then outstanding. If, upon the occurrence of a Deemed Liquidation Event, the assets and funds legally available for distribution among the holders of the Series A Preferred Stock and holders of Pari Passu Securities, if any, shall be insufficient to permit the payment to such holders of the preferential amounts payable thereon, then the entire assets and funds of the Corporation legally available for distribution to the Series A Preferred Stock and the Pari Passu Securities, if any, shall be distributed ratably among such shares in proportion to the ratio that the Liquidation Preference payable on each such share bears to the aggregate Liquidation Preference payable on all such shares.

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The “Liquidation Preference” with respect to a share of Series A Preferred Stock means an amount equal to the Face Amount thereof plus all accrued and unpaid dividends on the Series A Preferred Stock (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). The Liquidation Preference with respect to any Pari Passu Securities, if any, shall be as set forth in the Certificate of Designations filed in respect thereof.

#### ***Voting***

The holders of the Series A Preferred Stock have no voting power whatsoever, except as otherwise required by the Delaware General Corporation Law (the “DGCL”). To the extent that under the DGCL the vote of the holders of the Series A Preferred Stock, voting together as a single class, is required to authorize a given action of the Corporation, the affirmative vote of the Requisite Holders (except as otherwise may be required under the DGCL) shall constitute the approval of such action by such class. To the extent that under the DGCL holders of the Series A Preferred Stock are entitled to vote on a matter with holders of Common Stock, voting together as one class, each share of Series A Preferred Stock shall be entitled to a number of votes equal to the number of shares of Common Stock into which it is then convertible using the record date for the taking of such vote of stockholders as the date as of which the Conversion Price is calculated.

#### ***Registration Rights***

The Company agreed to register the resale of the Conversion Shares under the Securities Act of 1933. Accordingly, the Company is required to prepare and file a registration statement with the SEC within 30 days of stockholder approval of the issuance of the Conversion Shares, and to use commercially reasonable efforts to have the registration statement declared effective within 180 days.

#### ***Series A Preferred Offering***

The offering and sale of the Series A Preferred was exempt from registration under Section 4(2) of the Securities Act of 1933 and Rule 506 of Regulation D promulgated thereunder, with respect to certain purchasers. In considering the recommendation of our Board of Directors to approve the conversion of the Series A Preferred into common stock, you should be aware that if the proposal is approved at our Annual Meeting, the Series A Preferred holders will receive shares of our common stock. The shares of common stock are expected to be listed on The Nasdaq Capital Market and will therefore be a more liquid security than the Series A Preferred.

#### ***Insider Participation in Series A Offering***

Although none of the Company’s officers or directors participated in the offering of the Series A Preferred, Robert Ching, who beneficially holds approximately 9.9% of our issued and outstanding common stock, participated in the Series A Preferred offering, having purchased a total of \$500,000 of Series A Preferred shares. Following the conversion of the Series A Preferred shares pursuant to this proposal and taking into account contractual ownership limits on certain of Dr. Ching’s warrants, Dr. Ching would hold approximately 9.99% of our then issued and outstanding common stock.

#### ***Approval Required***

Under Nasdaq Rules, Proposal Three must be approved by a majority of Votes Cast, 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.

#### ***Recommendation of the Board***

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



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**PROPOSAL FOUR**  
**APPROVAL OF THE ISSUANCE OF COMMON STOCK PURSUANT TO A**  
**\$15 MILLION EQUITY-BASED LINE OF CREDIT**

**Background**

The Board of Directors believes it is in the best interest of the Company and its stockholders to approve the issuance of the full number of shares of Common Stock that would be issuable under a Purchase Agreement with Lincoln Park Capital Fund LLP (the "Equity Line Agreement") to the extent that such issuance could result in the Company issuing more than 20% of the issued and outstanding Common Stock of the Company as of October 21, 2011, in combination with other issuances related to an acquisition of Roche's RNAi business.

In October 2011, the Company secured access to a \$15,000,000 Equity Line with Lincoln Park Capital Fund, LLP (LPC), expiring in October 2014. Concurrent with the execution of the Equity Line Agreement, LPC purchased \$400,000 of the Company's common stock at a purchase price of \$4.00 per share. Under the terms of the Equity Line, the Company may, in its sole discretion, and subject to certain restrictions, periodically sell shares of the Company's common stock in an aggregate of up to \$15,000,000 upon the effective registration for resale of such shares. After effective registration of the shares, unless an increase is otherwise agreed to, at the Company's option, up to \$500,000 worth of shares can be sold to LPC every five days, subject to increases if the Company's stock price increases. No shares can be sold to LPC if the market price of the Company's common stock drops below \$2.00 per share.

The purchase price of the shares will be based on the market prices of our shares immediately preceding the time of sale as computed under the Equity Line Agreement without any fixed discount. We may at any time in our sole discretion terminate the Equity Line Agreement without fee, penalty or cost upon one business day notice. As payment to LPC of the \$269,500 commitment fee pursuant to the Equity Line Agreement, we issued 68,925 shares of our common stock to LPC at a price of \$3.91 per share. We may issue up to an additional 88,618 shares pro rata in payment of a further \$346,500 commitment fee as LPC purchases up to \$15,000,000 of our stock pursuant to the Equity Line Agreement. LPC may not assign or transfer its rights and obligations under the Equity Line Agreement.

The Company entered into the Equity Line Agreement to facilitate the acquisition of the Roche RNAi business and to partially fund the operations of the facility obtained in the acquisition. To continue its development programs, the Company will need to raise additional capital, which may be obtained by drawing additional amounts under the Equity Line Agreement, entering into a licensing or partnering arrangement for one or more of its technologies, or through additional equity financings or issuing debt.

**Stockholder Approval Requirement for the Proposal**

Our common stock is listed on the Nasdaq Capital Market, and we are subject to the Nasdaq listing standards set forth in its Marketplace Rules. Although we were not required to obtain stockholder approval in connection with the acquisition of Roche's RNAi business, we are required under Marketplace Rule 5635(a) to seek stockholder approval for the issuance of shares under the Equity Line Agreement.

NASDAQ Marketplace Rule 5635(a) requires stockholder approval prior to the issuance of securities in connection with the acquisition of the stock or assets of another company, including a private placement in which the proceeds are used to fund such an acquisition, where due to the present issuance of common stock (or securities convertible into or exercisable for common stock), other than a public offering for cash, the common stock to be issued (a) is or will be in excess of 20% of the outstanding common stock prior to the issuance or (b) constitutes voting power in excess of 20% of the outstanding voting power prior to the issuance. Because the total number of shares issued by us in connection with the Roche Transactions and related financings did not exceed 20%, we were not required to seek stockholder approval for the transaction. However, future issuance pursuant to the Equity Line Agreement will result in the issuance by the Company of more than 20% of the Company's outstanding Common Stock in combination with the other issuances related to the Roche transaction, which requires stockholder approval under Nasdaq rules.

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**Effect of Failure to Obtain Stockholder Approval**

If the stockholders do not approve Proposal Four, then the Company will need to find alternative sources of capital to fund its operations. Such capital may or may not be available to us on terms favorable to the Company or at all.

**Effect of Stockholder Approval**

If the stockholders approve Proposal Four, and contingent upon effective registration of shares issuable pursuant to the Equity Line Agreement, the Company expects to begin sales of shares to LPC, unless more attractive sources of capital are identified and secured. Based on the current market price of \$4.25 as of the Record Date, the additional issuance will result in dilution to our stockholders over a period of up to three years, estimated to be 25% of the Company's outstanding shares if the full amount of the Equity Line Agreement is drawn down by the Company.

**Approval Required**

Under Nasdaq Rules, Proposal Four must be approved by a majority of Votes Cast, 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.

**Recommendation of the Board**

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

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**PROPOSAL FIVE**  
**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 2,000,000 shares (the "**Amendment**"). Prior to the approval of the amendment, there was a total of 1,000,000 shares of Common Stock reserved for issuance. The Amendment also limits the maximum award of stock options or stock appreciation rights that can be granted to any one individual in a calendar year to 500,000 shares in order to ensure that compensation from stock options and stock appreciation rights qualify as performance-based compensation under Section 162(m) of the Internal Revenue Code.

We believe that employees, directors, consultants and key advisors should have a significant stake in the Company under programs that link compensation to shareholder 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 Option Plan, from which no further grants can be made, and the 2004 Incentive Plan. As of December 29, 2011, there are 288,549 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 ensures that the Company will continue to be able to give appropriate equity incentives to its key employees, directors and consultants and that, to this end, a sufficient number of shares of the Company's Common Stock is available 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 B 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 December 29, 2011, approximately 50 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 are not determinable.

**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.

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## **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, no more than 1,000,000 shares may be issued in the aggregate. On December 22, 2011, the Board of Directors approved an amendment to increase the shares authorized for issuance to 2,000,000, subject to the approval of the stockholders at the 2012 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. The Amendment also limits the maximum award of stock options or stock appreciation rights that can be granted to any one individual in a calendar year to 500,000 shares.

## **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, 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**

The 2004 Incentive Plan permits the grant of three types of stock appreciation rights: 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 restricted 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.

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### **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. All awards made 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 December 29, 2011 was \$4.25 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

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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.

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*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**

In order to be ratified, Proposal 5 must be approved by a majority of Votes Cast, 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 the Section 162(m) Regulations.

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

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**PROPOSAL SIX**  
**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, 2012, 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 6 must be approved by a majority of Votes Cast, 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 SIX.**



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## AUDIT FEES

The Audit Committee regularly reviews and determines whether specific projects or expenditures with our independent auditors, Rose, Snyder & Jacobs (RS&J), 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 2011 and 2010 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, 2011, and September 30, 2010:

	<u>Year Ended September 30,</u>	
	<u>2011</u>	<u>2010</u>
Audit fees (1)	\$116,200	\$126,200
Audit-related fees (2)	16,150	76,300
Tax fees (3)	20,085	47,050
Total	<u>\$152,435</u>	<u>\$249,550</u>

- (1) Fees invoiced by RS&J include year-end audit and quarterly reviews of Form 10-Q.
- (2) Fees invoiced by RS&J related to Arrowhead Comfort Letter and Consents, and other agreed-upon procedures.
- (3) This category consists of professional services rendered by RS&J for tax return preparation.

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## 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 2011, which include the consolidated balance sheets of the Company as of September 30, 2011 and 2010, and the related consolidated statements of operations, stockholders' equity and cash flows for the years ended September 30, 2011, and 2010 and for the period from May 7, 2003 (inception) through September 30, 2011, 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 Perry, who joined the committee on December 22, 2011. 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 13, 2011, the Audit Committee consisted of Edward W. Frykman and Charles McKenney. 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, 2010, as filed with the SEC.

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

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

## VOTING SECURITIES OF PRINCIPAL STOCKHOLDERS AND MANAGEMENT

The following table sets forth the beneficial ownership of the Company's Common Stock as of November 30, 2011, 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 300, Pasadena, California 91101. All information in the table and footnotes below has been adjusted to reflect the 1 for 10 reverse stock split which was effected on November 17, 2011.

	Number and Percentage of Shares Beneficially Owned (1)	
	Shares	Percentage
<b>5% Beneficial Owners</b>		
M. Robert Ching (2)	1,042,068	9.9%
Roche Finance Ltd. (3)	901,702	8.6%
Galloway Ltd. (4)	727,233	6.9%
Vermögensverwaltungs - Gesellschaft Zurich (5)	675,000	6.4%
<b>Executive Officers and Directors</b>		
R. Bruce Stewart (6)	137,608	1.3%
Chris Anzalone (7)	250,836	2.4%
Kenneth Myszkowski (8)	25,843	*
Edward Frykman (9)	33,042	*
Charles McKenney (10)	24,353	*
Mauro Ferrari (11)	26,797	*
Douglass Given	—	—
All executive officers and directors as a group (7 persons) (12)	498,479	4.7%

\* Less than 1%

- (1) Based on 10,525,941 common shares issued and outstanding as of November 30, 2011. Shares not outstanding but deemed beneficially owned by virtue of the right of a person to acquire them as of November 30, 2011, 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 793,611 shares of common stock and 111,039 shares of common stock issuable upon the exercise of common stock purchase warrants, of which 45,600 shares of common stock, and 18,240 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. Also includes 137,418 shares of common stock issuable upon conversion of Series A Preferred Stock, including additional shares of Series A Preferred Stock issuable in in-kind distribution as payment of dividends through March 31, 2012, conversion of which is subject to stockholder approval. 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 746,628 shares are currently not exercisable due to this limitation.
- (3) Carole Nuechterlein, Head of Roche Venture Fund, holds voting and investment control with respect to the shares owned by Roche Finance, Ltd. The address for Roche Finance Ltd. is Grenzacherstrasse 124, 4058 Basel Switzerland.
- (4) Denham Eke holds voting and investment control with respect to the shares owned by Galloway, Ltd. The address for Galloway, Ltd. is Viking House, Nelson Street, Douglas, Isle of Man, IM1 2AH

- (5) Markus Winkler holds voting and investment control with respect to the shares owned by Vermögensverwaltungs - Gesellschaft Zurich (VGZ), the address for VGZ is Mainaustrasse 30, CH - 8034 Zurich Switzerland
- (6) Includes 86,458 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.
- (7) Includes 184,489 shares issuable upon the exercise of stock options, and 32,172 shares issuable upon the exercise of common stock purchase warrants that are exercisable within 60 days of November 30, 2011.
- (8) Includes 24,342 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.
- (9) Includes 26,041 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.
- (10) Includes 23,333 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.
- (11) Includes 24,845 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.
- (12) Includes 369,511 shares issuable upon the exercise of stock options, and 32,112 shares issuable upon the exercise of common stock purchase warrants that are exercisable within 60 days of November 30, 2011.

#### EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of September 30, 2011 with respect to shares of our Common Stock that may be issued under our equity compensation plans. On November 17, 2011, the Company effected a 1 for 10 reverse stock split. The share data in the table below are listed on a post-split basis.

Plan Category	Equity Compensation Plan Information		
	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)	\$ 729,096	\$ 9.03	394,548
Equity compensation plans not approved by security holders	N/A	N/A	—
<b>Total</b>	<b>729,096</b>		<b>394,548</b>

- (1) Includes options outstanding representing 575,896 shares subject to the 2004 Equity Incentive Plan and 153,200 shares subject to the 2000 Option Plan. No shares are available for issuance under the 2000 option plan.

#### Current Executive Officers of the Registrant

The names, ages and positions of our current executive officers serving as of December 29, 2011 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	42	Chief Executive Officer & President and Director
R. Bruce Stewart	73	Executive Chairman of the Board
Kenneth A. Myszkowski	45	Chief Financial Officer
Bruce Given	57	Chief Operating Officer

**R. Bruce Stewart** has been Executive Chairman of the Board of the Company since December 1, 2007. Mr. Stewart was Arrowhead's Chief Executive Officer and Chairman of the Board of the Company from January 2004 to November 30, 2007. Mr. Stewart was the Chairman of the Board of Arrowhead's predecessor company since its inception in May 2003 and devoted much of his time from early in 2003 to development of its plan of operations. Mr. Stewart founded Acacia Research Corporation in March 1991, and was employed by Acacia Research Corporation in various capacities until January 2003, serving as its President from inception through January 1997, Chairman until April 2000, and as a senior advisor until January 2003. Mr. Stewart has elected to retire from the Board after his current term expires at the Annual Meeting. Accordingly, Mr. Stewart has not been nominated for reelection.

**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.

**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 the 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 his M.D. degree with honors from the University of Chicago, Pritzker School of Medicine 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

### Summary Compensation Table

The following table summarizes compensation paid, awarded or earned for services rendered during fiscal 2011 and fiscal 2010 by our Chief Executive Officer, and Kenneth Myszkowski, our other executive officer serving the Company as of September 30, 2011. We refer to those persons collectively as our “Named Executive Officers”.

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus (\$)</u>	<u>Stock Awards (\$)</u>	<u>Option Awards (\$) (1)</u>	<u>All Other Compensation (\$) (2)</u>	<u>Total (\$)</u>
Christopher Anzalone	2011	400,000	25,000	—	—	—	425,000
President & Chief Executive Officer	2010	400,000	—	—	1,134,094	—	1,534,094
Ken Myszkowski	2011	225,000	7,500	—	—	9,000	241,500
Chief Financial Officer	2010	185,096	27,419	—	249,172	1,731	463,418

- (1) Amounts shown do not reflect compensation actually received by the named executive officer. This column represents the total grant date fair value, computed in accordance with ASC 718, of stock options granted during fiscal year 2011. The assumptions used to calculate the value of the stock underlying the option awards are set forth in Note 7 of the Notes to the Consolidated Financial Statements included in our Annual Reports on Form 10-K for each of the periods presented above.
- (2) Amounts consist of 401(k) matching contributions.

### 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 without cause or by the executive with good reason. 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, 2011, adjusted for our 1 for 10 reverse stock split, which occurred on November 17, 2011.

	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
	100,117	12,532	5.10	10/8/2019
	42,243	14,081	5.20	3/4/2020
	10,416	36,458	9.90	8/16/2020
Ken Myszkowski	10,676	14,323	7.00	11/16/19
	6,000	2,000	5.20	3/4/2020
	3,250	8,750	9.90	8/16/2020

- (1) All option awards were granted under the 2000 Stock Option Plan or 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 2011

No named executive officers exercised any options or had any restricted stock vest in fiscal year 2010.

## 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, 2011, 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.

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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**

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 Mr. Stewart, the Company's Executive Chairman and former Chief Executive Officer, Dr. Anzalone, the Company's Chief Executive Officer and Douglass Given, who is the brother of Bruce Given, our Chief Operating Officer. Independent directors do not receive consulting, legal 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, through The Benet Group, since dissolved, and Dr. Anzalone owns approximately 14.2% and 15.9% 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 2011, 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 2011, the charge for services provided to Nanotope and Leonardo were \$313,282 and \$168,403, respectively. In addition, Arrowhead made cash advances to Nanotope of \$432,502 and to Leonardo of \$100,000 during fiscal 2011. The majority of the balance due Arrowhead is expected to be repaid in cash or converted to equity in fiscal 2012. In addition, the Bruce Given, Chief Operating Officer and CEO of Leonardo, Bruce Given, is the brother of Doug Given, a member of Arrowhead's Board of Directors. Doug 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 \$20,000 during the fiscal year ended September 30, 2010, and \$120,000 during the fiscal year ended September 30, 2011. Since October 1, 2011 through the date of this filing, December 20, 2011, Mr. Vincent Anzalone was paid \$30,000.

#### **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, 2010 including the financial statements, schedules and a list of exhibits. Requests should be sent to Arrowhead Research Corporation, 225 S. Lake Avenue, Suite 300 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



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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 300  
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  
January 11, 2012

Annex A

**CERTIFICATE OF DESIGNATIONS,  
PREFERENCES AND RIGHTS**

of

**SERIES A CONVERTIBLE PREFERRED STOCK**

of

**ARROWHEAD RESEARCH CORPORATION**

(Pursuant to Section 151 of the  
Delaware General Corporation Law)

Arrowhead Research Corporation, a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies that the Board of Directors of the Corporation (the "Board of Directors" or the "Board") pursuant to authority of the Board of Directors under Section 151 of the Delaware General Corporation Law ("DGCL"), and in accordance with the provisions of its Certificate of Incorporation and Bylaws, adopted the following resolution on October 20, 2011, which authorizes a series of the Corporation's Preferred Stock, par value \$0.001 per share (the "Preferred Stock"):

RESOLVED, that the Board of Directors of the Corporation, pursuant to authority expressly vested in it by the Certificate of Incorporation of the Corporation, hereby creates a series of Preferred Stock, par value \$0.001 per share, with such respective voting powers and with such respective designations, preferences and relative, participating, optional and other special rights and qualifications, limitations and restrictions, as set forth below:

**I. DESIGNATION AND AMOUNT**

The designation of the new series, which consists of 10,000 shares of Preferred Stock, is the Series A Convertible Preferred Stock (the "Series A Preferred Stock").

**II. CERTAIN DEFINITIONS**

For purposes of this Certificate of Designations, the following terms shall have the following meanings:

- A. "Beneficial Ownership" and "Beneficially Owns" shall be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Regulations 13D-G thereunder.
- B. "Change of Control" shall mean any of the following:
  - (i) the consolidation, merger or other business combination of the Corporation with or into another entity (other than a consolidation, merger or other business combination in which holders of the Corporation's voting power immediately prior to the transaction continue after the transaction to hold, directly or indirectly, in substantially the same proportion as immediately preceding the transaction, the voting power of the surviving entity or entities necessary to elect a majority of the members of the board of directors (or their equivalent if other than a corporation) of such entity or entities);
  - (ii) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation (including, without limitation, any such action effected by the Corporation or any subsidiary of the Corporation by merger, consolidation or otherwise) of all or substantially all of the intellectual property or assets of the Corporation and its subsidiaries, taken as a whole; or
  - (iii) the sale, in a single transaction or series of transactions, of Common Stock and/or Preferred Stock ("Capital Stock") to any purchaser (a "Purchaser") who, with the Purchaser's affiliates, Beneficially

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Owns immediately after such purchase either: (A) a majority of the outstanding Capital Stock of the Corporation, determined on an as-converted basis or (B) a number of shares of Capital Stock that would entitle the holder(s) thereof to elect a majority of the Board.

- C. "Closing Date" means the date of the closing under the Series A Preferred Subscription Agreement, dated October 21, 2011, by and among the Corporation and the purchasers named therein, as the same may be amended from time to time (the "Purchase Agreement").
- D. "Closing Sales Price" means, as of any date, (i) the last trading price of the Common Stock on the principal Trading Market during regular trading hours on which such security is listed or traded as reported by Bloomberg Financial L.P. (or a comparable reporting service of national reputation selected by the Corporation and reasonably acceptable to the Requisite Holders, if Bloomberg Financial L.P. is not then reporting closing sales prices of the Common Stock) (collectively, "Bloomberg") or (ii) if no last trading price is so reported for such date, the average of the closing bid and ask prices on the principal Trading Market during regular trading hours on which such security is listed or traded as reported by Bloomberg. If the Closing Sales Price cannot be calculated for such Common Stock as of any of such dates on any of the foregoing bases, the Closing Sales Price on such date shall be the fair market value as reasonably determined by an investment banking firm selected by the Requisite Holders and reasonably acceptable to the Corporation, with the reasonable costs of such determination to be borne by the Corporation.
- E. "Common Stock" means the Corporation's common stock, par value \$0.001 per share, and stock of any other class of securities into which such securities may hereafter be reclassified or changed into.
- F. "Common Stock Equivalents" means any securities of the Corporation that would entitle the holder thereof to acquire, directly or indirectly, at any time, Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other agreement, document or instrument that is at any time convertible into, exercisable for or exchangeable for, or otherwise entitles the holder thereof to receive, directly or indirectly, Common Stock.
- G. "Conversion Date" means, for any Optional Conversion, the date specified in the notice of conversion in the form attached hereto (the "Notice of Conversion"), so long as a copy of the Notice of Conversion is delivered via electronic mail resulting in notice to the Corporation before 11:59 p.m., New York City time, on the Conversion Date indicated in the Notice of Conversion; *provided, however*, that if the Notice of Conversion is not so e-mailed before such time, then the Conversion Date shall be the date the holder e-mails the Notice of Conversion to the Corporation.
- H. "Conversion Price" means \$0.38.
- I. "Face Amount" shall mean, with respect to the Series A Preferred Stock, \$1,000 per share, as adjusted for stock splits, stock dividends, combinations, recapitalizations, reclassifications or the like.
- J. "Original Issue Date" means, with respect to each share of Series A Preferred Stock, the date of issuance of such share.
- K. "Other Stock" means (i) any class or series of preferred stock or other capital stock of the Corporation, other than Common Stock, Common Stock Equivalents and Series A Preferred Stock, and (ii) any securities of the Corporation or of any subsidiary of the Corporation that would entitle the holder thereof to acquire, directly or indirectly, at any time any capital stock listed in clause (i), including, without limitation, any debt, preferred stock, right, option, warrant or other agreement, document or instrument that is at any time convertible into, exercisable for or exchangeable for, or otherwise entitles the holder thereof to receive, directly or indirectly, any capital stock listed in clause (i).
- L. Unless otherwise expressly provided in this Certificate of Designations, each reference to a "person" refers to any individual, entity or association, including, without limitation, any corporation, limited partnership, general partnership, joint stock company, joint venture, association, company, trust, bank, trust company, and trust, business trust or other organization, whether or not a legal entity, or a government or agency or any political subdivision thereof.
- M. "Requisite Holders" means the holders of a majority of the then outstanding shares of Series A Preferred Stock, voting together as one class.
- N. "Trading Day" means, except as set forth below, a day on which the Corporation's securities are traded on a Trading Market; *provided, however*, that in the event that the Corporation's securities are not traded on a Trading Market, then Trading Day shall mean any day except Saturday, Sunday and any day on which banking institutions in the State of New York are authorized or required by law or other government action to close.

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- O. “Trading Market” means the OTC Bulletin Board or the Pink Sheets, the NASDAQ Global Select Market, the NASDAQ Global Market, the NASDAQ Capital Market, the New York Stock Exchange, the NYSE, Amex or any of the markets operated by the OTC Markets Group, Inc., or any successor markets thereto.

### III. DIVIDENDS

- A. Holders of Series A Preferred shall be entitled to receive a cumulative dividend of 10% of the Face Amount per annum, which will accrue semi-annually with respect to each share of Series A Preferred, from the applicable date of issue through the date of Stockholder Approval (as defined in the Section 9 of the Purchase Agreement), and will be paid on June 30 and December 31 of each year in preference to any dividends to be paid on the Common Stock or any Junior Securities (as defined below). Such dividends shall be payable in additional shares of Series A Preferred Stock valued for this purpose at the Face Amount; *provided, however*, that if such additional shares of Series A Preferred Stock are not legally available for the payment of dividends on the Series A Preferred Stock, such dividends shall, effective on the close of business on a dividend payment date with respect to an unpaid dividend, accrete to, and increase, the Face Amount of the Series A Preferred Stock. If any such cumulative dividends would result in the issuance of a fractional share of Series A Preferred Stock, the Corporation shall issue a fractional share therefor, rounded to the nearest 1/1000<sup>th</sup> of a share. For the avoidance of doubt, in the event of a conversion that occurs between semi-annual accrual dates, dividends shall be deemed to accrue through the date of such conversion, even if such accrual is less than a full semi-annual dividend period.
- B. For any other dividends or distributions by the Corporation, Holders of Series A Preferred Stock will participate with the holders of Common Stock on an as-converted basis.

### IV. CONVERSION

- A. Conversion at the Option of the Holder. Subject to the limitations on conversions contained in Paragraph C. of this Article IV. and Section 9 of the Purchase Agreement, each holder of shares of Series A Preferred Stock may, at any time and from time to time, convert (an “Optional Conversion”) each of its shares of Series A Preferred Stock into a number of fully paid and non-assessable shares of Common Stock determined in accordance with the following formula:

$$\frac{\text{Face Amount}}{\text{Conversion Price}}$$

- B. Mechanics of Conversion. In order to effect an Optional Conversion, a holder shall deliver a copy of the fully executed Notice of Conversion (in the form attached hereto) to the Corporation.
- (i) Delivery of Common Stock Upon Conversion. The Corporation (itself, or through its transfer agent) shall promptly issue and deliver (i.e., deposit with a nationally recognized overnight courier service postage prepaid) to the holder or its nominee a certificate representing that number of shares of Common Stock issuable upon conversion of such shares of Series A Preferred Stock being converted.
- (ii) No Fractional Shares. If any conversion of Series A Preferred Stock would result in the issuance of a fractional share of Common Stock, such fractional share shall be payable in cash based upon the Closing Sales Price on the Trading Day immediately preceding the Conversion Date and the number of shares of Common Stock issuable upon conversion of the Series A Preferred Stock shall be the next lower whole number of shares.
- C. Limitations on Conversions. Notwithstanding anything in this Certificate of Designations to the contrary, in no event shall any holder of shares of Series A Preferred Stock have the right to convert shares of Series A Preferred Stock into shares of Common Stock (x) to the extent that such issuance or sale or right to effect such conversion would result in the holder or any of its affiliates together Beneficially Owning more than 19.99% of the then issued and outstanding shares of Common Stock or (y) if such holder or any of its affiliates together Beneficially Own more than 19.99% of the then issued and outstanding Common Stock

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immediately prior to such purported issuance, sale, transfer or conversion. The restriction contained in this Paragraph C, may not be waived. Any purported conversion effected in violation of this Paragraph C, shall be null and void. Certificates representing shares of Series A Preferred Stock shall have imprinted, typed, stamped or otherwise affixed thereon a legend in substantially the following form:

THE SHARES OF STOCK REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO TRANSFER AND CONVERSION RESTRICTIONS AND MAY BE TRANSFERRED OR CONVERTED ONLY AS PERMITTED BY THE TERMS OF THE CERTIFICATE OF DESIGNATIONS SETTING FORTH THE RIGHTS, POWERS AND PREFERENCES OF SUCH PREFERRED STOCK, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE CORPORATION AND SHALL BE PROVIDED FREE OF CHARGE UPON A REQUEST THEREFOR SUBMITTED TO THE SECRETARY.

#### V. RESERVATION OF SHARES OF COMMON STOCK

- A. If the authorized and unissued number of shares of Common Stock (the "Reserved Amount") for any five consecutive Trading Days (the last of such three Trading Days being the "Authorization Trigger Date") shall be less than a number sufficient to provide for the conversion in full, at the then current Conversion Price thereof, without taking into account the limitations on conversion set forth in Article IV.C., of all of the Series A Preferred Stock (i) then outstanding; (ii) then issuable; and (iii) then issuable as the payment of dividends on the Series A Preferred Stock described in clause (i) or (ii) for a period of 12 months (the "Required Reserve Amount"), then the Corporation shall immediately notify the holders of Series A Preferred Stock of such occurrence and shall take immediate action (including, if necessary, seeking stockholder approval to increase the number of shares of Common Stock that the Corporation is authorized to issue) to increase the Reserved Amount to the Required Reserve Amount.

#### VI. RANK

All shares of the Series A Preferred Stock shall rank (i) senior to (a) the Corporation's Common Stock; (b) the Common Stock Equivalents in existence as of the Closing Date; and (c) any Common Stock Equivalents and any Other Stock created after the Closing Date (unless, such Common Stock Equivalents or Other Stock specifically, by their terms, rank senior to or pari passu with the Series A Preferred Stock) (collectively with the Common Stock and the Common Stock Equivalents in existence as of the Closing Date, "Junior Securities"); (ii) pari passu with any Common Stock Equivalents and Other Stock created after the Closing Date specifically ranking, by their terms, on parity with the Series A Preferred Stock (the "Pari Passu Securities"); and (iii) junior to any Common Stock Equivalents or Other Stock created after the Closing Date specifically ranking, by their terms, senior to the Series A Preferred Stock (collectively, the "Senior Securities"), in each case as to dividends or distribution of assets upon liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary. Each share of Series A Preferred Stock shall rank pari passu with each other share of Series A Preferred Stock as to dividends and distribution of assets upon liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary.

#### VII. LIQUIDATION PREFERENCE

- A. If the Corporation:
- (i) shall liquidate, dissolve or wind up;
  - (ii) enters into a merger or consolidation (other than one in which stockholders of the Corporation own a majority by voting power of the outstanding shares of the surviving or acquiring corporation); or
  - (iii) sale, lease, transfer or other disposition of all or substantially all of the assets of the Corporation; each (a "Deemed Liquidation Event"), then in each case, no distribution shall be made to the holders of any shares of capital stock of the Corporation (other than Senior Securities pursuant to the rights, preferences and privileges thereof) upon liquidation, dissolution or winding up unless prior thereto the holders of shares of Series A

Preferred Stock shall have received the Liquidation Preference with respect to each share then outstanding. If, upon the occurrence of a Deemed Liquidation Event, the assets and funds legally available for distribution among the holders of the Series A Preferred Stock and holders of Pari Passu Securities, if any, shall be insufficient to permit the payment to such holders of the preferential amounts payable thereon, then the entire assets and funds of the Corporation legally available for distribution to the Series A Preferred Stock and the Pari Passu Securities, if any, shall be distributed ratably among such shares in proportion to the ratio that the Liquidation Preference payable on each such share bears to the aggregate Liquidation Preference payable on all such shares.

- B. The purchase or redemption by the Corporation of stock of any class, in any manner permitted by law, if approved by the Requisite Holders, shall not, for the purposes hereof, be regarded as a liquidation, dissolution or winding up of the Corporation.
- C. The “Liquidation Preference” with respect to a share of Series A Preferred Stock means an amount equal to the Face Amount thereof plus all accrued and unpaid dividends on the Series A Preferred Stock (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). The Liquidation Preference with respect to any Pari Passu Securities, if any, shall be as set forth in the Certificate of Designations filed in respect thereof.

#### VIII. ADJUSTMENTS TO THE CONVERSION PRICE

The Conversion Price shall be subject to adjustment from time to time as follows:

- A. Stock Splits, Stock Dividends, Etc. If, at any time on or after the Closing Date, the number of outstanding shares of Common Stock is increased by a stock split, stock dividend, combination, reclassification or other similar event (in each case, whether by merger or otherwise), then, after the date of record for such event, the Conversion Price shall be proportionately reduced. If the number of outstanding shares of Common Stock is decreased by a reverse stock split, combination or reclassification of shares, or other similar event (in each case, whether by merger or otherwise), then, after the date of record for such event, the Conversion Price shall be proportionately increased. In any such event described in this Paragraph A., the Corporation shall notify the Corporation’s transfer agent of such change on or before the effective date thereof.
- B. Adjustment Due to Merger, Consolidation, Etc. With respect to each share of Series A Preferred Stock, if, at any time after the Closing Date, there shall be:
  - (i) any recapitalization, reclassification or change of the outstanding shares of Common Stock (but not of such share of Series A Preferred Stock), other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a transaction causing an adjustment pursuant to Article VIII.A.; or
  - (ii) any share exchange pursuant to which all of the outstanding shares of Common Stock (but not such share of Series A Preferred Stock) are converted into or exchanged for capital stock or other securities of the Corporation or any subsidiary of the Corporation or any other person (or the right to receive any such securities) or into any property (including, without limitation, cash and the right to receive cash or other property) or into any combination of the foregoing (each of Subparagraphs (i)–(ii) of this Paragraph B. being a “Corporate Change”); then in each case, the holder of such share of Series A Preferred Stock shall thereafter have the right to receive upon conversion, in lieu of the shares of Common Stock otherwise issuable, such shares of stock, securities and/or other property as would have been issued or payable in such Corporate Change if such share of Series A Preferred Stock had been converted into Common Stock immediately prior to such Corporate Change without taking into account the limitations on conversion set forth in Article IV.

#### IX. VOTING RIGHTS

- A. The holders of the Series A Preferred Stock have no voting power whatsoever, except as otherwise required by the DGCL, or as expressly contemplated herein.
- B. To the extent that under the DGCL the vote of the holders of the Series A Preferred Stock, voting together

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as a single class, is required to authorize a given action of the Corporation, the affirmative vote of the Requisite Holders (except as otherwise may be required under the DGCL) shall constitute the approval of such action by such class. To the extent that under the DGCL holders of the Series A Preferred Stock are entitled to vote on a matter with holders of Common Stock, voting together as one class, each share of Series A Preferred Stock shall be entitled to a number of votes equal to the number of shares of Common Stock into which it is then convertible (subject to the limitations on conversion contained in Article IV.C.) using the record date for the taking of such vote of stockholders as the date as of which the Conversion Price is calculated. The Corporation shall not (i) combine the outstanding shares of any series of Series A Preferred Stock into a smaller number of shares of such series (whether by reclassification, merger, stock split or otherwise) or (ii) subdivide the outstanding shares of any series of Series A Preferred Stock into a greater number of shares of such series (whether by reclassification, merger, stock split, stock dividend or otherwise) without the approval (by vote or written consent, as provided by the DGCL) of the Requisite Holders.

#### X. PROTECTION PROVISIONS

So long as any shares of Series A Preferred Stock are outstanding, in addition to any other vote or approval required under the Corporation's Certificate of Incorporation or Bylaws, the Corporation shall not, without the consent of the Requisite Holders, either directly or by amendment, merger, consolidation, or otherwise:

- A. amend, alter, change or repeal any provision of the Corporation's (i) Bylaws or (ii) Certificate of Incorporation (including, for the avoidance of doubt, any Certificate of Designation or Certificate of Designations (including this Certificate of Designations) filed pursuant to Section 151(g) of the DGCL), so as to affect the Series A Preferred Stock adversely (including, but not limited to, increasing the authorized number of shares of Series A Preferred Stock (except as may be necessary to allow the Corporation to fulfill the obligations of the Corporation in Article III.); or
- B. increase the authorized number of shares of Series A Preferred Stock or issue additional shares of Series A Preferred Stock (except for the issuance of additional shares of Series A Preferred Stock as may be necessary to allow the Corporation to fulfill the obligations of the Corporation in Article III.).

#### XI. MISCELLANEOUS

- A. Cancellation of Series A Preferred Stock. If any shares of Series A Preferred Stock are converted pursuant to Article IV., the Corporation shall take all actions necessary to cause the shares so converted to be canceled and return to the status of authorized, but unissued preferred stock of no designated series.
- B. Lost or Stolen Certificates. Upon receipt by the Corporation of (i) evidence of the loss, theft, destruction or mutilation of any stock certificate(s) representing shares of Series A Preferred Stock (each a "Preferred Stock Certificate") and (ii) (y) in the case of loss, theft or destruction, of indemnity (without any bond or other security) reasonably satisfactory to the Corporation, or (z) in the case of mutilation, upon surrender and cancellation of the Preferred Stock Certificate(s), the Corporation shall execute and deliver Series A Preferred Stock Certificate(s) of like tenor and date. However, the Corporation shall not be obligated to reissue such lost or stolen Preferred Stock Certificate(s) if the holder contemporaneously requests the Corporation to convert in full all shares of Series A Preferred Stock represented by such Preferred Stock Certificate(s).
- C. Allocation of Reserved Amount. The Reserved Amount shall be allocated pro rata among the holders of Series A Preferred Stock based on the number of shares of Series A Preferred Stock issued to each holder then held of record by such holder. Each increase to the Reserved Amount shall be allocated pro rata among the holders of Series A Preferred Stock based on the number of shares of Series A Preferred Stock held by each holder at the time of the increase Reserved Amount. Any portion of the Reserved Amount which remains allocated to any person or entity which does not hold any Series A Preferred Stock shall be allocated to the remaining holders of shares of Series A Preferred Stock, pro rata based on the number of shares of Series A Preferred Stock then held of record by such holders.
- D. Status as Stockholder. Upon submission of a Notice of Conversion by a holder of Series A Preferred Stock, (i) the shares covered thereby shall be deemed converted into shares of Common Stock and (ii) the holder's

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rights as a holder of such converted shares of Series A Preferred Stock shall cease and terminate, excepting only the right to receive certificates for such shares of Common Stock and to any remedies provided herein or otherwise available at law or in equity to such holder because of a failure by the Corporation to comply with the terms of this Certificate of Designations.

- E. Waiver. Notwithstanding any provision in this Certificate of Designations to the contrary, any provision contained herein and any right of the holders of Series A Preferred Stock granted hereunder may be waived as to all shares of Series A Preferred Stock (and the holders thereof) upon the written consent of the Requisite Holders, unless a higher percentage is required by applicable law, in which case the written consent of the holders of not less than such higher percentage shall be required.
- F. Reference to Other Agreements and Documents. When the terms of this Certificate of Designations refers to a specific agreement or other document to determine the meaning or operation of a provision hereof, the secretary of the Corporation shall maintain a copy of such agreement or document at the principal executive offices of the Corporation and a copy thereof shall be provided free of charge to any stockholder who makes a request therefor. Unless otherwise provided in this Certificate of Designations, a reference to any specific agreement or other document shall be deemed a reference to such agreement or document as amended from time to time in accordance with the terms of such agreement or document.
- G. Severability. If any term of any series of Series A Preferred Stock is invalid, unlawful, or incapable of being enforced by reason of any rule of law or public policy, all other terms of such series of Series A Preferred Stock as set forth herein which can be given effect without the invalid, unlawful or unenforceable term will, nevertheless, remain in full force and effect, and no term of any series of Series A Preferred Stock will be deemed dependent upon any other such term unless so expressed in this Certificate of Designations.

IN WITNESS WHEREOF, this Certificate of Designations is executed on behalf of the Corporation this 25<sup>th</sup> day of October, 2011.

**ARROWHEAD RESEARCH CORPORATION**

By: /s/ Christopher Anzalone  
Name: Chris Anzalone  
Title: President and Chief Executive Officer



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**Annex B**

ARROWHEAD RESEARCH CORPORATION  
2004 EQUITY INCENTIVE PLAN, AS AMENDED, DECEMBER 22, 2011

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**ARROWHEAD RESEARCH CORPORATION**  
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.

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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.

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- 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.

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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 2,000,000 (two 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.

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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.

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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.

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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 2012 Annual Meeting of Stockholders; Company's 2012  
Proxy Statement; Company's Annual Report on Form 10-K for the year ended  
September 30, 2011; 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, FEBRUARY 16, 2012**

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 January 11, 2012, 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, February 16, 2012 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 consent will be IN FAVOR of the foregoing proposals 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 at any time before the date on which at least a majority of the outstanding shares of Common Stock have consented to that Proposal.