

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

**SCHEDULE 14A**  
**(Rule 14a-101)**  
**(Amendment No. 1)**

**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 Rule 14a-11(c) or Rule 1a-12

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**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)(4) and 0-11.

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

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

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

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(4) Proposed maximum aggregate value of transaction:

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(5) Total fee paid:

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- 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:

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(2) Form, schedule or registration statement no.:

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(3) Filing party:

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(4) Date filed:

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The following revised definitive proxy materials are being filed to reflect a change in the meeting date, mailing date and notice date for stockholder proposals for the 2010 annual meeting of stockholders. The new meeting date for the 2009 Annual Meeting of Stockholders will be March 26, 2009. Also, information has been added about how to access our proxy materials on the internet. No other changes have been made from the original filing.

**ARROWHEAD RESEARCH CORPORATION**  
**201 SOUTH LAKE AVENUE, SUITE 703**  
**PASADENA, CALIFORNIA 91101**

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS**  
**TO BE HELD ON THURSDAY, MARCH 26, 2009**

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 March 26, 2009, at 10:00 a.m., PST, at the Sheraton Pasadena, 303 E. Cordova Street, Pasadena, California 91101 for the following purposes:

1. To elect five (5) directors to serve as members of the Company’s Board of Directors until the next Annual Meeting or until their successors are elected;
2. To approve a proposed amendment to the Company’s 2004 Equity Incentive Plan (the “**2004 Incentive Plan**”) to increase the number of shares of common stock reserved for issuance under the 2004 Incentive Plan from 5,000,000 shares to 6,000,000 shares and to provide for certain other amendments as described more fully in the Proxy Statement;
3. To approve a proposed amendment to the 2004 Incentive Plan to permit an option exchange program, within certain parameters, without further stockholder approval;
4. To approve a proposed amendment to an inducement option grant to permit a one-time option exchange, within certain parameters, without further stockholder approval.
5. To ratify the selection of Rose, Snyder & Jacobs as independent auditors of the Company for the fiscal year ending September 30, 2009; and
6. To transact such other business as may properly come before the meeting or any adjournment(s) thereof.

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 five (5) 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 27, 2009, 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 mark, sign, date and return the enclosed 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  
February 18, 2009

**Important Notice Regarding the Availability of Proxy Materials for the Shareholder Meeting To Be Held on Thursday, March 26, 2009**

You may access the following proxy materials at [www.arrowres.com/2009meeting](http://www.arrowres.com/2009meeting)

- Notice of the 2009 Annual Meeting of Shareholders;
- Company’s 2009 Proxy Statement;
- Company’s Annual Report on Form 10-K for the year ended September 30, 2008; and
- Form of Proxy Card.

In accordance with Securities and Exchange Commission (“SEC”) rules, the foregoing website does not use “cookies”, track user moves or gather any personal information.

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

**ARROWHEAD RESEARCH CORPORATION**  
**201 South Lake Avenue, Suite 703**  
**Pasadena, California 91101**  
**(626) 304-3400**

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**PROXY STATEMENT FOR ANNUAL MEETING OF STOCKHOLDERS**  
**TO BE HELD ON THURSDAY, MARCH 26, 2009**

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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 Thursday, March 26, 2009, at 10:00 a.m., PST, and at any adjournment(s) thereof, for the purposes set forth herein and in the accompanying Notice of Annual Meeting of Stockholders. The Annual Meeting will be held at the Sheraton Pasadena, 303 E. Cordova Street, Pasadena, CA 91101.

The Company anticipates that these proxy solicitation materials will first be mailed on or about February 20, 2009, 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 27, 2009 (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 42,934,517 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.

**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: (i) FOR the election of each of the Company’s nominees for director, (ii) FOR the proposal to amend the 2004 Incentive Plan to increase the number of shares that are authorized for issuance and those other certain amendments, (iii) FOR the proposal to amend the 2004 Incentive Plan to permit an option exchange program, within certain parameters, without further stockholder approval, (iv) FOR the proposal to amend an inducement option grant to permit a one-time option exchange, within certain parameters, without further stockholder approval and (v) FOR the ratification of the selection of Rose, Snyder & Jacobs as independent auditors of the Company for the fiscal year ending September 30, 2009. 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 by completing and returning the accompanying proxy card. Please mark, sign and date the accompanying proxy card and return it promptly in the enclosed postage paid envelope.

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.

**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” or “AGAINST” 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 abstained or 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 five directors, will be elected.

With regard to Proposals 2, 3, 4 and 5, the affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote at the meeting is required for approval. With regard to these proposals, abstentions will be counted in tabulations of the votes cast on a proposal and will have the same effect as a vote against the proposal, whereas broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

Except as described in the preceding paragraph, any proxy that is returned using the form of proxy enclosed and that is not marked as to a particular item will be voted FOR all matters submitted to a vote of stockholders at the Annual Meeting pursuant to this proxy statement. In addition, the proxy holders will vote as the Board recommends on other matters that may come before the meeting.

#### **Deadline for Receipt of Stockholder Proposals**

Any stockholder who intends to present a proposal at the Company’s 2010 Annual Meeting of Stockholders must ensure that the proposal is received by the Corporate Secretary at Arrowhead Research Corporation, 201 South Lake Avenue, Suite 703, Pasadena, CA 91101, not later than October 20, 2009, 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.

If any stockholder who intends to present a proposal at the Company’s 2010 Annual Meeting of Stockholders does not give the Company notice of the proposal at least 45 days before the one-year anniversary of the date of sending of this proxy statement, then the proposal is not eligible to be brought before the 2010 Annual Meeting of Stockholders; provided, however, that if the date of the 2010 Annual Meeting of Stockholders has changed more than 30 days from the date of the 2009 Annual Meeting of Stockholders, then the stockholder who intends to present a proposal at the 2010 Annual Meeting of Stockholders must give the Company notice of the proposal a reasonable time before the Company sends its proxy materials for the 2010 Annual Meeting.

#### **Dissenter’s Rights of Appraisal**

In connection with the proposals set forth in this proxy statement, stockholders will not have a right to dissent and obtain payment for their shares under Delaware law or the Company’s Certificate of Incorporation or bylaws.

**PROPOSAL ONE  
ELECTION OF DIRECTORS**

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

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

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

<u>Name</u>	<u>Age</u>	<u>Position with Arrowhead</u>
R. Bruce Stewart	72	Executive Chairman of the Board
Christopher Anzalone	39	Chief Executive Officer & President, Director
Edward W. Frykman*	72	Director
LeRoy T. Rahn*	73	Director
Charles P. McKenney*	70	Director

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

Each nominee, if elected at the Annual Meeting, will serve as a director until the earlier of the 2010 Annual Meeting of the Company's stockholders or until their successors are duly elected.

**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.

**Dr. Christopher Anzalone** has been President, Chief Executive Officer and director of the Company since December 1, 2007. From 2005 until the present, Dr. Anzalone has also served as CEO and principal in the Benet Group LLC, a private equity firm focused on creating and building new nanobiotechnology companies from university-generated science. While at 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 remains CEO of each company. In fiscal 2008, Arrowhead acquired 23% and 6% of the outstanding stock of Nanotope, Inc. and Leonardo Biosystems, Inc., respectively. Prior to his tenure at Benet Group, from 1999 until 2003, he was a partner at the Washington, DC-based private equity firm Galway Partners, LLC. There, he was in charge of sourcing, structuring, and building new business ventures and was founding CEO of NanoInk, Inc., a leading nanolithography company. He continued as CEO of NanoInk until 2004. Dr. Anzalone holds a Ph.D. in Biology from UCLA and a B.A. in Government from Lawrence University.

**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.

**LeRoy (Lee) T. Rahn** has been a director of the Company since January 2004. Mr. Rahn was a partner with the intellectual property law firm of Christie, Parker & Hale from 1968 to 2003, with a practice focused on assisting clients in protecting their intellectual property through obtaining, maintaining and enforcing patents and other legal rights. He retired from the law firm's partnership in 2003, but remained affiliated with the firm on an "of counsel" basis until December 31, 2007. He is a former president of the Los Angeles Intellectual Property Association. Prior to becoming an attorney, Mr. Rahn obtained a degree in electrical engineering. Mr. Rahn was a director in Arrowhead's predecessor company from December 2003 to January 2004 when he became a director of the Company.

**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.

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

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

- 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 and Dr. Anzalone. Independent directors do not receive consulting, legal or other fees from the Company, other than Board and Committee compensation.
- 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 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.
- As part of the Code of Business Conduct and Ethics Policy, the Company has made a "whistleblower" hotline available to all employees for anonymous reporting of financial or other concerns. The Audit Committee receives directly, without management participation, all hotline activity reports, including complaints on accounting, internal controls or auditing matters.

### **Stockholder Communications with Directors**

Stockholders who want to communicate with the Board or any individual director can write to: Jane Davidson, Corporate Secretary, Arrowhead Research Corporation, 201 South Lake Avenue, Suite 703, 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 sixteen meetings during the fiscal year ended September 30, 2008. 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 in executive session six times during fiscal 2008. The current members of the Audit Committee are Edward W. Frykman, Chairman, LeRoy T. Rahn and Charles P. McKenney. 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 met five times during fiscal 2008. The current members of the Compensation Committee are Edward W. Frykman, Chairman, LeRoy T. Rahn and Charles P. McKenney. 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 current members of the Nomination Committee are Edward W. Frykman, Chairman, LeRoy T. Rahn and Charles P. McKenney. The Nomination Committee met once in fiscal 2008. 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 members have typically been found 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 under the provisions, set forth above, for communication with the Board. The deadline for such nominees for election to the Board at the Company's 2010 Annual Meeting of Stockholders is October 7, 2009 if the nominee is to be considered by the Nomination Committee for inclusion in the slate recommended by the Board.

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.

No incumbent director attended fewer than 75% of the aggregate of (i) the total number of meetings of the Board held during fiscal 2008, and (ii) the total number of meetings held by all committees of the Board during fiscal 2008 on which such person served.

In addition, all directors attended the 2008 Annual Meeting of Stockholders. It is the Company's policy to encourage, but not require, that all directors attend our annual meetings.

## **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. 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 also receive automatic grants of non-statutory stock options to purchase 20,000 shares of Common Stock upon re-election each year; starting at the 2009 Annual Meeting of Stockholders, the size of the annual option grant will be increased to 40,000 shares for each non-employee director. All options granted to non-employee directors vest on the one-year anniversary of the grant. We also pay-out-of-pocket expenses incurred as a result of service to the Company. The following table sets forth the total compensation paid to our non-employee directors in fiscal 2008.

**FISCAL 2008 NON-EMPLOYEE DIRECTOR COMPENSATION**

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)(1)</u>	<u>Option Awards (\$)(2)(3)</u>	<u>Total (\$)</u>
Edward Frykman	\$ 12,000	\$33,808	\$45,808
Leroy Rahn	\$ 12,000	\$33,808	\$45,808
Charles McKenney	\$ 12,000	\$33,808	\$45,808

- (1) Until March 31, 2008, each non-employee director received \$1,000 quarterly for his service as a director. After March 31, 2008, each non-employee director received \$5,000 quarterly for his service as a director. There are no additional payments for being a member of a committee.
- (2) Amounts shown do not reflect compensation actually received by the directors. Instead, the amounts shown are the fair value recognized by the Company in fiscal 2008 for option awards as determined pursuant to Statement of Financial Accounting Standards No. 123R, or FAS 123R. The assumptions used to calculate the value of option awards are set forth under Note 10 to the Consolidated Financial Statements included in the Company's Annual Report on Form 10-K for fiscal 2008 filed with the SEC on December 15, 2008.
- (3) As discussed, non-employee directors currently receive 20,000 options each year according to the policy described above. The options vest one year from the date of grant. At September 30, 2008, Mr. Frykman and Mr. Rahn each had outstanding option grants to purchase a total of 185,000 shares at prices ranging from \$1.00 to \$5.24, and Mr. McKenney has outstanding option grants to purchase a total of 135,000 shares at prices ranging from \$2.02 to \$5.24.

Non-employee directors do not receive compensation from Arrowhead other than as a director. There are no family relationships between directors and executive officers of the Company.

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

The Board has adopted, subject to stockholder approval, an amendment to the Company's 2004 Equity Incentive Plan (the "2004 Incentive Plan") increasing the number of shares of Common Stock of the Company reserved for issuance under the 2004 Incentive Plan to a total of 6,000,000 shares (the "Amendment"). Prior to the approval of the amendment, the shares reserved for issuance were 5,000,000 shares. 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 2,000,000 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, stock option grants are an integral part of the Company's compensation program. The Company has historically relied on two plans, the 2000 Option Plan, from which no further grants can be made, and the 2004 Incentive Plan. As of January 27, 2009, there are 243,722 shares of Common Stock remaining available under the 2004 Incentive Plan for future grants.

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. The Amendment further ensures that the Company will be able to receive a tax deduction upon the exercise of stock options and stock appreciation rights granted to its top five executives.

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

## **Eligibility**

The 2004 Incentive Plan provides for the granting of stock options, stock appreciation rights (“SARs”), restricted stock awards, performance unit awards and performance share awards (collectively, “Awards”) to key employees, directors, consultants and key advisors of the Company and its subsidiaries. As of January 27, 2009, approximately 50 employees, directors and consultants were eligible to receive awards under the 2004 Incentive Plan.

## **Purpose**

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

## **Administration**

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

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

Under the 2004 Incentive Plan, no more than 5,000,000 shares may be issued in the aggregate. On January 27, 2009, the Board of Directors approved an amendment to increase the shares authorized for issuance to 6,000,000, subject to the approval of the stockholders at the 2009 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 2,000,000 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 plan committee and having a value at the time of exercise equal to the exercise price, by any other consideration the plan 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 bonuses that vest in accordance with terms established by the Compensation Committee. The Compensation Committee may impose restrictions and conditions on the shares, including, without limitation, restrictions based upon the achievement of specific performance goals (Company-wide, divisional and/or individual), and/or restrictions under applicable federal or state securities laws. The Compensation Committee may accelerate the time at which any restrictions lapse, and/or remove any restrictions.

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

## **Performance Unit/Share Awards**

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

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

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

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

## **Term**

The 2004 Incentive Plan became effective as of December 1, 2004. No grants of incentive stock options may be made under the 2004 Incentive Plan after December 1, 2014. 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**

Prior to the Amendment, under the 2004 Incentive Plan, the Compensation Committee may not lower the exercise price of outstanding options without the approval of the Company's stockholders. A separate proposal contained in this Proxy Statement is up for stockholder approval that, if approved, would further amend the 2004 Incentive Plan to give authority to the Compensation Committee to institute an option exchange program, within certain parameters, without further stockholder approval.

## **Adjustments**

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

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

Common Stock underlies all of the options and rights to be awarded under the 2004 Incentive Plan. The market value of the Common Stock at the close of trading on January 27, 2009 was \$0.86 per share.

## **Federal Tax Aspects**

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

## **Tax Consequences to Participants**

### *Incentive Stock Options*

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

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

### *Non-Qualified Stock Options*

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

### *Stock Appreciation Rights*

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

### *Restricted Shares*

In general, a plan participant will not recognize ordinary income upon receipt of restricted shares. The plan participant will recognize ordinary income when the shares are transferable by the plan participant or are no longer subject to a substantial risk of forfeiture, whichever occurs first. At such time, the plan participant will recognize ordinary income in an amount equal to the current

fair market value of the shares. A plan participant may, however, elect to recognize ordinary income when the restricted shares are granted in an amount equal to the fair market value of the shares at that time, determined without regard to the restrictions. Any appreciation in the value of the shares after the date the shares become transferable or are no longer subject to substantial risk of forfeiture, or after the participant has made the election referred to in the preceding sentence, if applicable, will be treated as either short-term or long-term capital gain, and any depreciation in value will be treated as either short-term or long-term capital loss, depending upon how long the shares have been held.

#### *Performance Units*

A plan participant will not recognize income upon the grant of performance units. 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.

#### *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**

Under applicable law and our Bylaws, any Amendment to the 2004 Incentive Plan must be approved by the stockholders holding a majority of shares present, or represented, and voting at the Annual Meeting, at which 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 TWO.

### **PROPOSAL THREE**

#### **PROPOSAL TO AMEND THE COMPANY’S 2004 EQUITY INCENTIVE PLAN TO PERMIT AN OPTION EXCHANGE PROGRAM, WITHIN CERTAIN PARAMETERS, WITHOUT FURTHER STOCKHOLDER APPROVAL**

#### **Overview**

Our Board has determined that it would be in the best interests of our Company and our stockholders to amend the 2004 Incentive Plan and to give the Compensation Committee authority to institute a periodic stock option exchange program, within certain parameters, without obtaining further stockholder approval. The Board believes an option exchange program will enhance long-term stockholder value by improving our ability to provide incentives to, and help retain, our employees, including our executive officers. As of January 27, 2009, 100% of our outstanding stock options held by our employees and executive officers were “underwater,” meaning that they had exercise prices greater than our stock price on that date. The weighted average exercise price of all outstanding options under the 2004 Incentive Plan was \$3.18 as of January 27, 2009 as compared to a \$0.86 closing price of our common stock on the NASDAQ Global Market on that same date. As a result, the Board has concluded that our outstanding stock options do not provide meaningful retention or incentive value to our employees and executive officers. Stock options have been, and continue to be, a key part of our incentive compensation and retention programs and are designed to motivate and reward employees’ efforts as we work to bring our products through development and into commercialization and seek liquidity events for our key subsidiaries. Retention of our employees is essential to completing these critical activities and the Board believes that the proposed Amendment to the 2004 Incentive Plan will help achieve these goals.

Under the proposed Amendment to the 2004 Incentive Plan, the option exchange program must comply with four requirements. First, only one option exchange program can be implemented without further stockholder approval. Second, only options with exercise prices in excess of 200 percent of the fair market value of a share of Common Stock would be eligible to participate in the exchange program. Third, the new price for options participating in the exchange program must be at a premium of least 50 percent above fair market value on the effective date of repricing. Fourth, any person participating in the option exchange program will not be eligible to receive additional option grants until six months after the option exchange program is initiated. The committee may impose additional requirements on the option exchange program including, for example, value for value exchange and/or new vesting

schedules. Any option exchange program will be open to all employees of the Company, including our executive officers and directors.

We believe the amendment to the 2004 Incentive Plan, to permit option repricing without further stockholder approval in accordance with the above-described pre-defined parameters will permit us to:

- restore incentives for employees to remain with the Company by issuing them new stock options;
- reduce the equity award overhang represented by outstanding options that have high exercise prices and are no longer effective as performance and retention incentives; and
- defer the need to further replenish the stock option pool for future grants.

### **Reasons for the Amendment**

We are a nanotechnology holding company striving to bring new products to market via our subsidiaries and investments in the healthcare, electronics, and clean energy industries. Our mission is to create shareholder value by building subsidiaries that may be monetized in three primary ways: (1) subsidiaries may be sold to other companies with proceeds flowing back to the Company; (2) subsidiaries may execute an IPO, with proceeds flowing back to the Company and/or providing the Company with tradable stock; and (3) subsidiaries may become mature operating units with earnings consolidated with the Company.

Like many other development-stage companies, our stock price has experienced a significant volatility and decline in the past year. Volatility in our stock price has only been exacerbated by the current economic downturn and tightening of the credit markets. As a result, many of our employees and executive officers hold options with exercise prices significantly higher than the current market price of our common stock. As of January 27, 2009, the exercise prices of currently outstanding stock options to our employees and executive officers ranged from \$1.00 to \$6.89, and the weighted average exercise price was \$3.18, while the closing price of our common stock on the NASDAQ Global Market on that date was \$0.86. Consequently, 100% of our currently outstanding stock options are underwater. These underwater options may not be effective as employee performance and retention incentives. We believe that to develop and commercialize our products, we need to maintain competitive employee compensation and incentive programs. By amending the 2004 Incentive Plan to permit the Compensation Committee to institute an option exchange program, within the parameters described above, we believe we can offer a meaningful incentive to our employees that is directly aligned with the interest of our stockholders.

#### *Solution*

In determining to recommend that stockholders approve the amendment to the 2004 Incentive Plan to permit the Compensation Committee to institute an option exchange program, within certain parameters, without further stockholder approval, we considered several alternatives to provide competitive compensation to our employees:

#### *Increase Cash Compensation*

To replace equity incentives, we would need to substantially increase base and target bonus compensation. These increases would substantially increase our compensation expenses, reduce our cash flow from operations and require additional financing.

#### *Grant Additional Stock Options*

We also considered granting employees additional stock options at current market prices. However, these additional grants would substantially increase our total number of outstanding stock options, or “overhang.” In addition, the number of options available for grant under the 2004 Equity Incentive Plan is limited, even if Proposal Two above is approved.

#### *Implement Option Exchange*

Finally, we considered an option exchange program. We determined that a program under which employees could exchange higher-priced stock options for stock options with exercise prices at a premium to fair market value was most attractive for a number of reasons, including the following:

- *Reasonable, Balanced Incentives.* Under an option exchange program, participating optionees may surrender options with an exercise price at least 200% over fair market value options for stock options priced at a premium of at least 50% above fair market value. We believe options at exercise prices that are closer to market is a reasonable and balanced exchange of

underwater options for options with much stronger current impact on employee performance.

- *Restore Retention Incentives.* We rely on highly skilled and educated scientific, technical and managerial employees to develop and commercialize products in the healthcare, electronics, and clean energy industries. If we are not successful in retaining our current best employees, we will experience employee turnover which is disruptive and expensive. Recruitment of these types of employees is difficult and expensive. Even when such employees are recruited to the Company, the actual performance of new employees is hard to predict and new employees experience a learning curve. The Company has engaged in significant cutbacks in the number of employees to conserve cash in the difficult economic climate, thereby increasing the demands on the employees that remain. Many companies in general, and development-stage companies like us in particular, have long used stock options as a means of attracting, motivating and retaining their best employees, while aligning those employees' interests with those of the stockholders. We continue to believe that stock options are a vital component of our employees' total compensation, and that replacing this component with additional cash compensation to remain competitive would have a material adverse effect on the Company. We also believe that in order to have the desired impact on employee motivation and retention as we continue to develop and commercialize products, our employee stock options should be exercisable near the current price of our common stock. The failure to address the underwater option issue in the near to medium term will make it more difficult for us to retain our key employees. If we cannot retain these employees, our ability to develop and commercialize our products could be jeopardized, which would adversely affect our business, results of operations and future stock price.
- *Reduced Pressure for Additional Grants.* If we are able to conduct a program in which underwater options with low incentive value may be exchanged for options with higher incentive value, participants in the option exchange program will not be eligible for new option grants for a period of at least six months. If we are unable to conduct such a program, we may be forced to issue additional options to our employees at current market prices, increasing our overhang. These grants would also more quickly exhaust our current pool of options available for future grant.

### **Language of the Amendment Permitting Option Exchanges**

The Amendment, if approved, would add the following language to the 2004 Incentive Plan:

The Compensation Committee shall have the authority to institute an option exchange program whereby optionees (including officers and directors) may exchange their options for options with a lower exercise price; provided, however, that any exchange program shall comply with the following requirements: (i) only one option exchange program can be implemented without further stockholder approval; (ii) only options with exercise prices in excess of 200 percent of the Fair Market Value of a Share shall be eligible to participate in the exchange program; (iii) the new price for options participating in the exchange program must be at a premium of at least 50% above fair market value on the effective date of repricing; and (iv) any person participating in the option exchange program will not be eligible to receive additional option grants until six months after the option exchange program is initiated. The Compensation Committee may impose additional requirements on the option exchange program including, for example, value for value exchange and/or new vesting schedules.

### **Description of the 2004 Incentive Plan**

Please see a summary of the 2004 Incentive Plan under Proposal Two.

### **Implementing the Option Exchange Program**

We have not commenced an option exchange program and will not do so unless our stockholders approve this proposal and those parameters described above are satisfied. Provided such approval is received and the parameters are met, an option exchange program is expected to commence at a time determined by the Compensation Committee.

Upon the commencement of an option exchange program, employees holding eligible options will receive written materials explaining the precise terms and timing of the option exchange program (an "**offer to exchange**"). Employees will be given at least 20 business days to elect to exchange some or all of their current options for a new option on a grant-by-grant basis. They will make this election by filling out an election form, which will be distributed to them as part of the offer to exchange and submitting the form to our stock plan administrator within the 20 business day period (or such longer period as we choose to keep the offer to exchange open). After the offer to exchange is closed, eligible options that were surrendered for exchange will be cancelled, and the Compensation Committee will approve grants of new stock option awards to participating employees in accordance with the applicable exchange ratio. All such option awards will be granted under the 2004 Incentive Plan and will be subject to the terms of such plan.

At or before commencement of an option exchange program, we will file the offer to exchange with the Securities and Exchange Commission (the “SEC”) as part of the tender offer statement on Schedule TO. Employees and directors, as well as stockholders and members of the public, will be able to obtain the offer to exchange and other documents we file with the SEC free of charge from the SEC’s website at [www.sec.gov](http://www.sec.gov).

***If you are both a stockholder and an employee holding eligible options, please note that voting to approve the Amendment to the 2004 Incentive Plan to permit an option exchange program does not constitute an election to participate in an option exchange program.***

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

The exchange of eligible options for new options pursuant to an option exchange program should be treated as a non-taxable exchange and the Company, our stockholders and our employees generally should recognize no income for U.S. federal tax purposes upon the surrender of eligible options and the grant of new options.

#### *Accounting Impact*

We have adopted the provisions of Financial Accounting Standards Board Statement of Financial Accounting Standards No. 123 (revised 2004), Share-Based Payment (“**FAS 123R**”). If the fair value of the new option grants is different than the value of the grants they replace, we may recognize some incremental adjustments to our stock based compensation expense. Since the Compensation Committee has not approved any specific option exchange program, we are unable to predict the amount of such adjustment. Such an adjustment could have a material effect on our results of operations. If any portion of the new stock option awards granted is forfeited prior to the completion of the service condition due to termination of employment, the compensation charge for the forfeited portion of the new stock option awards will not be recognized.

#### *Potential Modification to Option Exchange Program to Comply with Governmental Requirements*

The terms of any option exchange program will be described in an offer to exchange that will be filed with the SEC. Although we do not anticipate that the SEC would require us to modify the terms materially, it is possible that we will need to alter the terms of the option exchange program to comply with comments from the SEC.

#### *New Plan Benefit*

Since the Compensation Committee has not approved any specific option exchange program, we are unable to predict who or how many individuals will elect to participate or how many options will be surrendered for exchange.

#### *Effect on Stockholders*

We are unable to predict the precise impact on our stockholders because the Compensation Committee has not approved any specific option exchange program.

#### *Effect on the 2004 Incentive Plan*

As of January 27, 2009, 243,722 shares of common stock were available for future grant under the 2004 Incentive Plan. If Proposal Two is approved, an additional one million shares will be added to the 2004 Incentive Plan. If Proposal Three is approved and the Compensation Committee institutes an option exchange program, any shares subject to outstanding awards granted under the 2004 Incentive Plan that are cancelled pursuant to the option exchange program will be added to the number of shares available for issuance under the 2004 Incentive Plan.

### **Vote Required; Recommendation of the Board**

Under applicable law and our Bylaws, any Amendment to the 2004 Incentive Plan must be approved by the stockholders holding a majority of shares present, or represented, and voting at the Annual Meeting, at which a quorum is present. For this purpose, abstentions will be counted as a vote against the proposal, while broker non-votes will have no effect on the outcome of the vote.

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

**PROPOSAL FOUR**  
**PROPOSAL TO AMEND INDUCEMENT OPTION GRANT TO PERMIT A ONE-TIME OPTION EXCHANGE, WITHIN CERTAIN PARAMETERS, WITHOUT FURTHER STOCKHOLDER APPROVAL**

On December 3, 2007, the Company granted an option to Dr. Christopher Anzalone, the Company's Chief Executive Officer and President, in connection with his commencement of employment. This option, which represents the right to purchase a total of 2,000,000 shares of Common Stock at a price of \$3.92 per share and vests over a four-year period, was granted as an "inducement" award outside of the Company's existing stockholder-approved equity compensation plans, as permitted under NASDAQ Marketplace Rule 4350(i)(A)(iv) (the "**Inducement Option**"). The terms of the Inducement Option are set forth in a Stock Option Agreement, dated June 11, 2008, and do not expressly permit a repricing of the award without stockholder approval.

As described above under Proposal Three, the Compensation Committee and the Board believe that significantly underwater options, such as the Inducement Grant, do not provide meaningful incentives or retention value. In the case of Dr. Anzalone's award, the exercise price is more than four times the current fair market value of the Company's Common Stock and the Board feels that a significant portion of this diminution in value is attributable to the overall decline in the capital markets and the current economic downturn. Accordingly, the Board has approved, subject to stockholder approval, an amendment to the Inducement Option that is substantially similar to the proposed Amendment to the 2004 Incentive Plan, as described under Proposal Three. Specifically, the Inducement Option amendment, if approved, would add the following language:

15. **Permitted Option Exchange.** The Compensation Committee of the Board of Directors (the "Committee") shall have the authority to include the Executive in any option exchange program and thereby exchange the Option for a stock option with a lower exercise price; provided, however, that any exchange program shall comply with the following requirements: (i) only one option exchange can be implemented without further stockholder approval; (ii) the Option will only be eligible for exchange if the Exercise Price is in excess of 200 percent of the Fair Market Value of a Share; (iii) the new price for the option must be at a premium of at least 50 percent above fair market value of the common stock on the effective date of repricing; and (iv) the Executive will not be eligible to receive additional option grants until six months after the option exchange is initiated. The Committee may impose additional requirements on the option exchange including, for example, value for value exchange and/or new vesting schedules.

Please refer to the disclosure set forth above under Proposal Three for a more complete discussion of the reasons for the proposed Inducement Option amendment and the implementation of the any option exchange for the Inducement Option, including the tax and accounting consequences. A copy of the Inducement Option Agreement, with the proposed amendment, is attached to this proxy statement as Annex B.

**Vote Required; Recommendation of the Board**

Under applicable law and our Bylaws, any amendment to the Inducement Option must be approved by the stockholders holding a majority of shares present, or represented, and voting at the Annual Meeting, at which 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 FOUR

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

Our Audit Committee, with the ratification of our Board, selected the accounting firm of Rose, Snyder & Jacobs ("**RS&J**") as the Company's independent auditors for the fiscal year ending September 30, 2009, 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 five must be approved by the stockholders holding a majority of shares present, or represented, and entitled to vote on the proposal. For this purpose, abstentions and broker non-votes will have no effect on the outcome of the vote, unless such shares are necessary to satisfy the quorum requirement, in which case abstentions and broker non-votes will have the effect of a vote against the proposal.

### THE BOARD UNANIMOUSLY RECOMMENDS A VOTE "FOR" PROPOSAL FIVE.

#### AUDIT FEES

The Audit Committee regularly reviews and determines whether specific projects or expenditures with our independent auditors, 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 2007 and 2008 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, 2008, and September 30, 2007:

	Year Ended September 30,	
	2008	2007
Audit Fees (1)	\$ 101,700	\$ 108,850
Audit-Related Fees (2)	144,050	82,800
Tax fees (3)	59,950	21,075
All Other Fees (4)	59,200	71,200
Total	\$ 364,900	\$ 283,925

- (1) Fees invoiced by RS&J include year-end audit and quarterly reviews of Form 10-Q.
- (2) Fees invoiced by RS&J include the audits of Calando, Unidym, CNI and preparation of the Arrowhead Comfort Letter and Consents.
- (3) This category consists of professional services rendered by RS&J for tax return preparation.
- (4) Fees were paid for Sarbanes-Oxley compliance work.

### 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 2008, which include the consolidated balance sheets of the Company as of September 30, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the last three fiscal years, 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, LeRoy T. Rahn and Charles P. McKenney. 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.** The Audit Committee has 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 Audit Committee discussed with RS&J matters required to be discussed by Statement on Auditing Standards No. 114, "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 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, 2008, as filed with the SEC.

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

Edward W. Frykman, Chairman  
LeRoy T. Rahn  
Charles P. McKenney

#### VOTING SECURITIES OF PRINCIPAL STOCKHOLDERS AND MANAGEMENT

The following table sets forth the beneficial ownership of the Company's Common Stock as of January 15, 2009, by (i) each person known by the Company to be the beneficial owner of more than five percent of the Company's Common Stock, (ii) by each of the named executive officers named in the table under "Executive Compensation and Related Information," (iii) by each director, and (iv) all current directors and executive officers as a group. Except as otherwise indicated in the footnotes to the table, 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. Except where noted below, the address of each stockholder is c/o Arrowhead Research Corporation, 201 South Lake Avenue, Suite 703, Pasadena, CA 91101.

<u>Name</u>	<u>Number of Shares</u>	<u>Percentage Ownership</u>
<b>Over 5% owners</b>		
Fidelity Management & Research Company 82 Devonshire Street Boston, MA 02109-3605	3,665,676 (1)	8.5%
<b>Current Executive Officers and Directors</b>		
R. Bruce Stewart	1,553,150 (2)	3.6%
Christopher Anzalone	752,020 (3)	1.7%
Paul McDonnel	158,854 (4)	*
Thomas Haag	67,708 (5)	*
John C. Miller	485,209 (6)	1.1%
Edward W. Frykman	185,000 (7)	*
Charles P. McKenney	145,200 (8)	*
LeRoy T. Rahn	185,000 (9)	*
All current executive officers and directors as a group (12 persons)	3,636,137 (10)	8.0%
<b>Former Named Executive Officers</b>		
Joseph T. Kingsley	466,584 (11)	1.1%
Larry G. Stambaugh	N/A	N/A
Arthur Swift	100,000 (12)	*

(1) Includes 350,347 shares issuable to Fidelity upon the exercise of stock purchase warrants that are exercisable within 60 days of January 15, 2009. Information based on Form 13F-HR filed by FMR Corporation on November 14, 2008.

(2) Includes 841,650 shares issuable to Mr. Stewart upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.

- (3) Includes 588,020 shares issuable to Dr. Anzalone upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.
- (4) Includes 158,854 shares issuable to Mr. McDonnel upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.
- (5) Includes 67,708 shares issuable to Mr. Haag upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.
- (6) Includes 485,209 shares issuable to Mr. Miller upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.
- (7) Includes 185,000 shares issuable to Mr. Frykman upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.
- (8) Includes 135,000 shares issuable to Mr. McKenney upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.
- (9) Includes 185,000 shares issuable to Mr. Rahn upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.
- (10) See footnotes (2) - (9). Includes 2,646,441 shares issuable upon exercise of stock options held by the current executive officers and directors that are exercisable within 60 days of January 15, 2009.
- (11) Includes 454,584 shares issuable to Mr. Kingsley upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.
- (12) Includes 100,000 shares issuable to Mr. Stambaugh upon the exercise of stock options that are exercisable within 60 days of January 15, 2009.
- \* indicates less than 1%

## EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of September 30, 2008 with respect to shares of our Common Stock that may be issued under our equity compensation plans.

<u>Plan Category</u>	<u>Equity Compensation Plan Information</u>		
	<u>Number of securities to be issued upon exercise of outstanding options, warrants and rights</u>	<u>Weighted average exercise price of outstanding options, warrants and rights</u>	<u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))</u>
Equity compensation plans approved by security holders(1)	6,007,632	\$ 3.24	289,678(3)
Equity compensation plans not approved by security holders(2)	2,000,000	3.92	—
<b>Total</b>	<b>8,007,632</b>		<b>289,678</b>

- (1) Includes 4,448,632 shares subject to the 2004 Equity Incentive Plan and 1,559,000 shares subject to the 2000 Option Plan (each stated as of September 30, 2008).
- (2) Represents an inducement grant as part of the Company's CEO's compensation package, as described in Proposal Four.
- (3) If our stockholders approve Proposal 2, the number of shares available under the 2004 Equity Incentive Plan will be increased by 1,000,000 shares.

## EXECUTIVE COMPENSATION AND RELATED INFORMATION

### Compensation Discussion and Analysis

The Compensation Committee has the responsibility for the approval and oversight of the compensation program to ensure adherence with the Company's compensation philosophy. The Committee consists of independent, non-employee directors who are not eligible to participate in the management compensation program.

The Compensation Committee can and does exercise its discretion to modify any recommended adjustment or award to senior executives.

**Objective of the Compensation Program.** The Company's compensation program objective is to attract and retain executives through the use of both short and long-term goals and related incentive programs. The programs seek to do the following:

- Align the interests of senior management with the interests of the stockholders;
- Attract and retain talent needed to successfully implement the Company's business plan;
- Motivate executives by providing competitive compensation packages;
- Emphasize and reinforce individual performers who do an outstanding job; and
- Standardize compensation and benefit package for all employees, except for severance agreements with certain executive officers.

The Compensation Committee makes all compensation decisions regarding the Chief Executive Officer of the Company and has input into the compensation of other Named Executive Officers ("NEOs"). The compensation of other officers is reviewed annually by the Compensation Committee.

**Components of the Compensation Plan.** There are four components to our compensation program:

- **Base Salary** - The fixed portion of the compensation program consists of the base salary and related benefits paid to employees to retain them and provide a base level of compensation to all employees.
- **Stock Option Awards** - The stock option program is intended to align the interests of employees with the interests of the stockholders. All employees are eligible to participate in the stock option program.
- **Performance and Hiring Awards** - The Company occasionally gives cash performance bonuses to selected individuals. These bonuses are approved by the Compensation Committee based upon input from the CEO and/or one of the Company subsidiary CEOs. The committee may give performance bonuses to any employee. Hiring awards are given when necessary to attract talented employees.
- **Liquidation Event Awards** - The Executive Incentive Plan (the "**Incentive Plan**") is designed to provide incentive bonus compensation to the Company's executive officers if a subsidiary engages in a liquidation event yielding net proceeds to the Company, with the total bonus pool capped at 10% of the actual net proceeds received by the Company in cash or securities in a liquidation event. The Incentive Plan gives the Board ultimate authority over discretionary bonus payments, after recommendation by the Chief Executive Officer. The Incentive Plan defines a liquidation event as (i) any sale, transfer or issuance or series of sales, transfers and/or issuances of capital stock or other voting equity of the Subsidiary by the Subsidiary or any holders thereof (whether by merger, recapitalization, public offering or otherwise) which results in any person or group of persons (as the term "group" is used under the Securities Exchange Act of 1934, as amended) other than the Company and its affiliates owning a majority of the Subsidiary's outstanding voting equity, and (ii) any sale or transfer of all or substantially all of the assets of a Subsidiary (including any securities held by the Company and the Subsidiary), taken as a whole, in any transaction or series of transactions (whether by merger, recapitalization, public offering or otherwise). "Net proceeds" means the net cash and or stock proceeds (after deducting all cash and non-cash costs and expenses related to the transaction and any and all cash and non-cash investments in the Subsidiary) received by the Company from a Liquidation Event. The foregoing summarizes the Plan and you are referred to the full text of the Incentive Plan, filed as Exhibit 10.11 to the Company's Annual Report Form 10-K for the fiscal year ended September 30, 2005, filed on December 14, 2006.

**Procedure for Determining Compensation.** The salary of the CEO, CFO and other executive officers is based upon what the Compensation Committee believes is reasonable and necessary to attract and retain the talent needed to achieve the goals of the Company. This analysis is done by the Compensation Committee based on an assessment of the accomplishments of the CEO and the other officers over the past year, comparisons of compensation of other peer companies in the developing technology space, the recent marketplace hiring of executives as a benchmark, their business experience and, in the case of the executives other than the CEO, discussions of the compensation with the CEO. Based upon this input, the compensation is adjusted as necessary.

The Company does provide severance packages to attract and retain senior management. The Board approves any severance package before it is given to the executive.

**Methodology in Determining Compensation.** As part of its methodology in determining the relevant amounts of compensation to be awarded to our executive officers, the Compensation Committee generally considers the following:

- **Individual/Company Performance.** In assessing the performance of the Company's CEO and Executive Chairman, the Compensation Committee reviews a written summary of the Company's key accomplishments over the past fiscal year. In fiscal 2008, the Compensation Committee considered the following goals: (a) building shareholder

value as measured by stock price, (b) succession planning, (c) raising additional capital and establishing or acquiring new businesses and (e) achievement of a major collaboration or commencement of a new clinical trial for least one of the Company's majority owned subsidiaries. For fiscal 2008, it was determined that the Executive Chairman and the CEO did not meet all of the goals set by the Compensation Committee for the year due, in large part, to worsening market and economic conditions. No adjustment was made to the Executive Chairman's or the CEO's salaries in fiscal 2008. The goals and objectives for fiscal 2009 include the following: (a) raising additional capital (b) raising the Company's profile in the investment community and (c) achievement of certain specific business development milestones for the Company's majority owned subsidiaries. For purposes of fixing compensation for the Company's other officers, the Compensation Committee evaluates the CEO's review of each executive's individual performance as it relates to their individual performance goals and the progress of the company. Based upon this input, the compensation of other officers is adjusted as necessary.

- Peer Group Comparison – The Compensation Committee considers the compensation of other peer companies in the developing technology space when setting the compensation of its executive officers. The following is a list of the companies that were considered:

Acacia Research Corporation	Enzon Pharmaceuticals, Inc.
Albany Molecular Research	Dendreon Corporation
BioSante Pharmaceuticals	Favrille
Harris & Harris Group, Inc.	Access Pharmaceuticals
Safeguard Scientifics, Inc.	GTx, Inc.
Allos Therapeutics, Inc.	Introgen Therapeutics, Inc.
Cell Therapeutics, Inc.	Onyx Pharmaceuticals, Inc.

- Past Compensation – The Compensation Committee evaluates past compensation and equity grants in determining executive compensation.
- Recent Marketplace Hirings – The Compensation Committee considers recent marketplace hiring of executives as a benchmark. It is becoming more and more expensive to hire top executives. Recent hiring of CEOs for the Company's subsidiaries has demonstrated this fact. The Company strives to keep salary, benefits and equity compensation on par with comparable companies.
- Business Experience – The Compensation Committee will rely on its own business experience and knowledge in determining the amount of compensation.

**Timing of Compensation Change.** In fiscal 2005, the Compensation Committee began reviewing CEO and CFO compensation in May of each year. For the last three years, the Compensation Committee has met in the last week of May or first week of June to decide on the CEO's and CFO's compensation using the factors noted above. Other executives of the Company are generally adjusted at the same time. The Compensation Committee believes that, at that time, it has a reasonable picture of the Company for the fiscal year and also has a picture of what has or has not been accomplished and what remains to be done during the remainder of the fiscal year and what needs to be accomplished in the coming fiscal year.

Prior to May 2005, the Compensation Committee kept the compensation of the key executives lower than market because the Company was in a development stage and cash for operations was key to the Company's success. Since May 2005, the Compensation Committee has raised the salaries of NEOs to better reflect the marketplace. The Compensation Committee found that compensation has escalated and that the Company, although still in the development stage, needed to reflect those trends in its executive staff.

**Awarding Options under the Equity Incentive Program.** Options are granted by the Board to each employee of the Company when he or she is hired. These initial options are granted the later of the hire date or the date of approval by the Board and are priced at the closing market price on the date of grant. The Company has a written policy to not time options either to the market or ahead of the favorable release of non-public information.

Subsequent awards of options (if warranted) are done by the Compensation Committee or the Board based on input from the CEO. There are no guidelines as to what should be awarded.

**Awards under the Executive Incentive Plan.** To support the Company's business model to build value through the acquisition, formation and development of companies, the Board adopted the Incentive Plan on December 7, 2006. The Incentive Plan allows executives of the Company to share in a portion of the gain on the sale or IPO of a subsidiary. The Incentive Plan is administered by the Compensation Committee. The Incentive Plan is intended to allow the Company to motivate, attract and retain the services of outstanding executives upon whose judgment, interest and special effort the success of the Company and its subsidiaries is largely dependent. Although the Incentive Plan was adopted with the executives of the Company in mind, it can be open to other

employees at the Compensation Committee's discretion. A payout under the Incentive Plan can only be initiated by the CEO after a major, positive liquidity event such as an IPO or sale of a subsidiary. The Incentive Plan is intended to compensate executives should the Company have a major, positive liquidity event. The CEO can recommend that up to 10% of the net cash or stock received in a liquidity event be given to selected employees. The Board can agree with the recommendation, change the recommendation or reject the recommendation.

**Use of a Compensation Consultant.** In the past, the Compensation Committee has not used a compensation consultant to assist in determining compensation. The Compensation Committee may choose to hire a consultant in the future.

**Tax Deductibility of Compensation.** Section 162(m) of the Internal Revenue Code of 1986, as amended, imposes a \$1 million limit on the amount that a public company may deduct for compensation paid to the Company's CEO or any of the Company's four other most highly compensated executive officers who are employed as of the end of the year. This limitation does not apply to compensation that meets the requirements under Section 162(m) for "qualifying performance-based" compensation (i.e., compensation paid only if the individual's performance meets pre-established objective goals based on performance criteria approved by the stockholders). For fiscal 2008, the Company's executive officers did not receive cash compensation in excess of \$1 million. Generally, while the Company seeks to maximize the deduction of executive officers, because we compensate our executive officers in a manner designed to promote our varying corporate goals, our Compensation Committee has not adopted a policy requiring all compensation to be deductible.

**Severance and Change of Control Payments.** Our Board reviews and approves severance and change of control arrangements with our executive officers in order to mitigate some of the risk that exists for our executive officers. These arrangements are intended to attract and retain qualified executives who have alternatives that may appear to them to be less risky absent these arrangements, and mitigate a potential disincentive for the executives to pursue and execute an acquisition of us, particularly where the services of these executive officers may not be required by the acquirer. For a description and quantification of these severance and change of control benefits, please see the discussion under "Executive Compensation — Severance and Change of Control Agreements" below.

**Protecting the Company's Interests.** Each of our executive officers has signed an agreement requiring that he or she will hold our confidential information in strict confidence. These agreements are in effect during the executive officer's employment with us and do not expire after a termination of the executive officer's service.

**Compensation Committee Interlocks and Insider Participation.** No member of the Compensation Committee was, during fiscal 2008, an officer or employee of the Company, nor was any member of the Compensation Committee formerly one of our officers. None of our executive officers served (i) as a member of the compensation committee (or board of directors serving the compensation function) of another entity, one of whose executive officers served on the compensation committee or (ii) as a member of the compensation committee (or board of directors serving the compensation function) of another entity, one of whose executive officers served on our Board.

### Compensation Committee Report

We have reviewed and discussed the foregoing Compensation Discussion and Analysis with management. Based on our review and discussion with management, we have recommended to the Board that the Compensation Discussion and Analysis be included in the Company's Proxy Statement for the fiscal year ended September 30, 2008.

Edward W. Frykman, Chairman  
Charles P. McKenney  
LeRoy T. Rahn

### Current Executive Officers of the Registrant

The names, ages and positions of our current executive officers serving as of January 27, 2009 are provided below. Biographical information regarding these officers is set forth under the following table, except for Mr. Stewart and Dr. Anzalone, whose biographies are set forth above with our other directors.

<u>Name</u>	<u>Age</u>	<u>Position with Arrowhead</u>
R. Bruce Stewart	72	Executive Chairman of the Board
Christopher Anzalone	39	Chief Executive Officer & President and Director

<u>Name</u>	<u>Age</u>	<u>Position with Arrowhead</u>
Paul McDonnell	52	Chief Financial Officer
Thomas Haag	36	General Counsel & Chief Patent Officer
John Miller	30	Vice President, Business Development

**Paul McDonnell** was appointed Chief Financial Officer of Arrowhead in January 2008. Mr. McDonnell held the position of Vice President, Finance and Accounting of the Company since 2006. He has served in a variety of executive-level finance, accounting and operational positions. From 2003 until 2005, Mr. McDonnell served as CEO and CFO of Quality Imaging Products, an Irvine, California-based remanufacturer of toner cartridges, which was sold in 2005 to Printing Technology, Inc. From 1999 to 2003, he was CFO at Instashred Security Services LLC, a provider of shredding services across North America, until its sale to Recall Secured Destruction Services, Inc., when he became Senior Operations Manager for California. During his 26-year career, he also served as the CFO of Reid Plastics, Inc. and Trojan Enterprises, Inc. and worked closely with several private equity groups in connection with merger and acquisition transactions. Mr. McDonnell is a CPA and began his career in the Los Angeles office of Arthur Andersen & Co. Mr. McDonnell received his masters degree in management accounting and his bachelors degree in accounting from Brigham Young University.

**Thomas Haag**, Ph.D., J.D. has been Chief Patent Officer of the Company since April 2008 and was named General Counsel in December 2008. Previously, from August 2003 to March 2008, Dr. Haag was in private practice in the Washington D.C. office of McDermott Will & Emery LLP, except for a period from January 2007 to March 2007 when he served as Senior Patent Attorney at Human Genome Sciences, Inc. Prior to his tenure at McDermott Will & Emery, from September 1999 to August 2003, he was in private practice in the Washington D.C. office of Kenyon & Kenyon LLP. Dr. Haag received his B.S. in Biology and Ph.D. in Molecular, Cell & Developmental Biology from UCLA where he was an NIH Predoctoral Fellow in Genetic Mechanisms. He graduated from The George Washington University Law School with honors, receiving the ABA/BNA Award for Excellence in the Study of Intellectual Property Law. He is admitted to practice before the USPTO, in New York and in the District of Columbia. He is registered as California In-House Counsel.

**John Miller**, Vice President, Business Development joined Arrowhead in May 2004 and has been instrumental in monitoring the intellectual property landscape and licensing patents held by Arrowhead and its subsidiaries, as well as identifying and developing new business ideas for Arrowhead. Mr. Miller founded NanoPolaris (now Unidym) and guided its development through the acquisition of three nanotechnology companies. Prior to joining the Company, from 2002 until 2004, Mr. Miller was a founder and Managing Editor of Nanotechnology Law & Business, a peer-reviewed, quarterly journal. He has published various articles on legal and policy issues in nanotechnology and co-authored The Handbook of Nanotechnology Business, Policy, and Intellectual Property Law (John Wiley, 2004). John is a member of the California bar and federal courts in the Northern District of California. He graduated Order of the Coif from Stanford Law School.

**FISCAL 2008 SUMMARY COMPENSATION TABLE**

The following table summarizes compensation paid, awarded or earned for services rendered during fiscal 2008 by our current and former Chief Executive Officer, our current and former Chief Financial Officer, our other two most highly paid executive officers serving the Company as of September 30, 2008, as well as the chief executive officer of one of our major subsidiaries and a former executive officer who was among the most highly compensated in fiscal 2008. We refer to these 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>Non-Equity Incentive Plan Compensation (\$)</u>	<u>Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
<b>Current Executive Officers</b>									
R. Bruce Stewart	2008	250,000	—	—	330,947	—	—	—	580,947
Executive Chairman of the Board Arrowhead Research Corporation	2007	233,408	—	—	313,767	—	—	750,000(2)	1,297,175
Christopher Anzalone, President & Chief Executive Officer Arrowhead Research Corporation	2008	323,569	—	—	979,911	—	—	101,090(3)	1,404,570
	2007	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)
Paul McDonnell Chief Financial Officer Arrowhead Research Corporation	2008	201,021	20,000	—	105,397	—	—	—	326,418
	2007	178,747	—	—	99,044	—	—	—	277,791
John Miller Vice President Business Development	2008	229,121	40,000	—	68,461	—	—	—	337,582
	2007	205,643	—	—	94,933	—	—	—	300,576
Thomas Haag General Counsel & Chief Patent Officer	2008	114,423	—	—	74,606	—	—	14,187(5)	203,216
	2007	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)

**Former Executive Officers**

Joseph T. Kingsley	2008	245,377	—	—	89,790	—	—	—	335,167
President and Chief Financial Officer Arrowhead Research Corporation	2007	222,859	—	—	241,621	—	—	252,750(6)	717,230
Larry G. Stambaugh	2008	130,559	—	—	—	—	—	209,237(7)	339,796
President and Chief Executive Officer Calando and Insert	2007	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(4)
Arthur L. Swift,	2008	333,167	—	—	179,948	—	—	—	513,115
Former President and Chief Executive Officer of Unidym Inc., a majority-owned subsidiary of Arrowhead	2007	122,337	32,000	—	51,133	—	—	—	205,470

- (1) Amounts shown do not reflect compensation actually received by the named executive officer. Instead, the amounts shown are the compensation costs recognized by the Company, as determined pursuant to FAS 123R. The assumptions used to calculate the value of stock awards are set forth under Note 10 of the Notes to the Consolidated Financial Statements included in the Company's Annual Report on Form 10-K for fiscal 2008 filed with the SEC on December 15, 2008.
- (2) Amount shown does not reflect compensation actually received by the named executive officer. On May 24, 2007, the Company entered into a severance agreement with Mr. Stewart. The Company accrued three years' pay for Mr. Stewart to be paid to him monthly for three years upon his severance from the Company.
- (3) Consists of \$100,000 in relocation expenses and \$1,090 for life insurance.
- (4) Dr. Anzalone, Dr. Haag, and Mr. Stambaugh were not employed by the Company in fiscal 2007.
- (5) Consists of \$14,187 in relocation expenses.

- (6) On May 24, 2007, the Company entered into a severance agreement with Mr. Kingsley. The Company accrued one year's pay for Mr. Kingsley to be paid to him monthly for one year upon his severance from the Company. In January 2008, the Company and Mr. Kingsley agreed to cancel the severance agreement and Mr. Kingsley became Assistant to the President of Arrowhead at an annual salary of \$245,000. In addition, the Company contributed \$7,750 to Mr. Kingsley's retirement account.
- (7) Consists of severance payment of \$200,000 plus COBRA expenses as well as reimbursement for office expenses pursuant to the severance agreement between Mr. Stambaugh and Calando/Insert.

## GRANTS OF PLAN BASED AWARDS

The following table sets forth certain information regarding grants of plan-based awards to the named executive officers during fiscal 2008.

Name	Grant Date	Option Awards: Number of Securities Underlying Options Granted (#)(1)	Exercise Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards(1)
R. Bruce Stewart	6/11/2008	50,000 (2)(3)	2.13	\$ 76,373
Christopher Anzalone	6/11/2008	25,000 (2)(3)	2.13	38,187
Paul C. McDonnel	6/11/2008	50,000 (2)(3)	2.13	76,373
John C. Miller	6/11/2008	80,000 (2)(3)	2.13	122,197
Thomas Haag	4/1/2008	275,000 (2)(4)	3.07	598,490
Arthur L. Swift	N/A	—	—	—
Joseph T. Kingsley	N/A	—	—	—
Larry G. Stambaugh	N/A	—	—	—

- (1) The grant date fair value of the stock and option awards has been computed in accordance with SFAS No. 123(R), which requires that we recognize as compensation expense the value of all stock-based awards, including stock options, granted to employees in exchange for services over the requisite service period, which is typically the vesting period, excluding forfeiture assumptions. For more information on the manner in which equity compensation expense is calculated, see the notes to our audited consolidated financial statements attached to the annual report accompanying this proxy statement.
- (2) The amounts listed reflect stock options granted under our 2004 Equity Incentive Plan and are described in the Outstanding Equity Awards at Fiscal Year-End Table below.
- (3) Option vests and becomes exercisable with respect to 1/48 of the total number of underlying shares on the first day of the month following the date of grant and then ratably with respect to the remaining shares monthly thereafter for the next 47 months.
- (4) Option vests with regard to 12.5% of the shares on the six-month anniversary of the date of grant and then ratably with respect to the remaining shares monthly thereafter for the next 42 months.

**2008 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 at the end of fiscal year 2008.

<u>Name</u>	<u>Option Awards (1)</u>			
	<u>Number of Securities Underlying Unexercised Options (#) Exercisable</u>	<u>Number of Securities Underlying Unexercised Options (#) Unexercisable</u>	<u>Option Exercise Price (\$)</u>	<u>Option Expiration Date</u>
R. Bruce Stewart	250,000	—	1.00	2/14/2014
	250,000	—	2.52	5/24/2015
	75,000	—	5.24	5/26/2016
	187,500	62,500	4.34	4/1/2017
	3,125	46,875	2.13	6/11/2018
Christopher Anzalone	375,001(3)	1,624,999(3)	3.92	12/1/2017
	1,562	23,438	2.13	6/11/2018
Paul McDonnel	57,500	42,500	4.61	3/13/2016
	57,500	42,500	5.00	8/21/2016
	3,125	46,875	2.13	6/11/2018
John Miller	8,333	71,667	2.13	6/11/2018
	50,000	—	5.24	5/26/2016
	400,000	—	1.00	5/1/2014
Thomas Haag	—	275,000	3.07	4/1/2018

**Former Officers**

Joseph T. Kingsley	247,500	—	1.72	10/10/2014
	100,000	—	2.52	5/24/2015
	62,500	—	5.24	5/26/2016
	52,088	—	4.34	4/1/2017
Athur L. Swift	69,047	130,953	6.62	6/18/2017
Larry G. Stambaugh	20,833	79,167	3.87	11/1/2017

- (1) All option awards, except for a 2,000,000 share inducement grant to Dr. Anzalone, were granted under the 2000 Stock Option Plan or the 2004 Equity Incentive Plan of the Company. Options were granted at the closing market price the day before the award until May 26, 2006, when the company changed to the market closing price on the day of the award. Options vest over various time frames but all options are fully vested in 24 to 48 months after the award is granted.
- (2) No restricted stock awards have ever been made by the Company.
- (3) Awarded outside the Company's equity incentive plans.

**Option Exercises and Stock Vested in Fiscal Year 2008**

No named executive officers exercised any options or had any restricted stock vest in fiscal year 2008.

**Executive Compensation—Severance and Change of Control Agreements**

At September 30, 2008, the company had the following severance agreements with Mr. Stewart and Dr. Anzalone. No other named executive officer was entitled to severance or change of control benefits as of that date.

**FISCAL 2008 POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL TABLE**

<u>Name</u>	<u>Benefit</u>	<u>Before Change in Control Termination w/o Cause or for Good Reason</u>	<u>After Change in Control Termination w/o Cause or for Good Reason</u>	<u>Voluntary Termination</u>	<u>Death</u>	<u>Disability</u>	<u>Change in Control</u>
R. Bruce Stewart (1)	Severance Pay	750,000	750,000	750,000	750,000	750,000	750,000
Christopher Anzalone (2)	Severance Pay	400,000	400,000	—	—	—	400,000
	Health Care	10,000*	10,000*	—	—	—	10,000*

**(1) R. Bruce Stewart, Executive Chairman**

In fiscal 2007, Mr. Stewart signed a Severance Agreement that pays the following, except where executive is terminated for cause:

- Should Mr. Stewart voluntarily retire or voluntarily terminate from Arrowhead or its successor for any reason or should he be terminated from Arrowhead or its successor for any reason (except for cause), Mr. Stewart will be paid his highest annual salary while at Arrowhead Research Corporation for each of the next three years after his termination.
- Each month, the payment to Mr. Stewart will be 1/36th of the total amount due under the Agreement. Should Mr. Stewart die before terminating from Arrowhead or after terminating from Arrowhead but before the full three-year period has ended, his estate will be paid until the full three-year period has ended.
- During the three-year period, Mr. Stewart will, at his option, consult with the company if asked. Mr. Stewart can decline to consult if he chooses to do so but the payments will continue until such time as the full three-year period has been paid.

**(2) Christopher Anzalone, President and Chief Executive Officer**

In fiscal 2008, Dr. Anzalone signed an Employment Agreement that pays the following, except where executive is terminated for cause:

- Should Dr. Anzalone be terminated by the Company without cause or should Dr. Anzalone resign with Good Reason, Dr. Anzalone shall be entitled to one year's base pay and COBRA cost for one year. The cost of COBRA for one year is an estimate based on current costs. Actual cost could be different depending on variations in the cost of health insurance in the future.
- Should Dr. Anzalone die or become disabled, his employment with the Company terminates immediately. Upon Dr. Anzalone's death, his heirs will receive insurance proceeds of \$2,000,000.

**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, 2008, all of its officers, directors and significant stockholders complied with all applicable filing requirements under Section 16(a) except as follows: Form 3s for Christopher Anzalone and Paul McDonnell were not filed timely when they became Section 16 officers, Form 4s for Edward W. Frykman, LeRoy T. Rahn and Charles P. McKenney were not filed timely for automatic director grants on March 13, 2008 and Form 4s for R. Bruce Stewart, Christopher Anzalone, and Paul McDonnell were not filed timely for options granted on June 11, 2008.

**REVIEW AND APPROVAL OF RELATED-PARTY TRANSACTIONS**

All related-party transactions are reviewed and approved by the Company's Audit Committee that is comprised solely of independent directors. If the size or nature of the transaction warrants special consideration, a committee of non-related directors is formed to negotiate and approve the transaction.

**RELATED-PARTY TRANSACTIONS**

In April 2008 the Company acquired Masa Energy LLC, a Delaware limited liability company, for \$560,000 in a combination of cash and Arrowhead common stock. Masa's only assets are a 5.78% minority

position in Nanotope, Inc. (“**Nanotope**”) and a 6.13% minority position in Leonardo Biosystems, Inc. (“**LBS**”). Masa is unrelated to Arrowhead. However, both Nanotope and LBS were co-founded by the Company’s President and Chief Executive Officer, Dr. Christopher Anzalone, through the Benet Group, a private investment entity solely owned and managed by Dr. Anzalone. During the fourth quarter of the fiscal year ended September 30, 2008, Arrowhead purchased from Nanotope 1,801,802 shares of Nanotope’s Series B preferred stock at a price per share of \$1.11 for an aggregate purchase price of \$2 million. In addition, Nanotope issued 9,548 shares of Nanotope Series B to another investor at a price per share of \$1.11. The Company’s purchase of Nanotope Series B added to the Company’s previously acquired 5.78% ownership interest in Nanotope.

Through the Benet Group, Dr. Anzalone owns 1,395,900 shares of Nanotope common stock, or approximately 14.2% (after giving effect to the sale of Nanotope Series B Preferred Stock) of Nanotope’s outstanding voting securities. Dr. Anzalone does not hold options, warrants or any other rights to acquire securities of Nanotope directly or through the Benet Group. The Benet Group has the right to appoint a representative to the board of directors of Nanotope. Dr. Anzalone currently serves on the Nanotope board in a seat reserved for Nanotope’s CEO and another individual holds the seat designated by the Benet Group. Dr. Anzalone has served as President and Chief Executive Officer of Nanotope since its formation and continues to serve in these capacities. Dr. Anzalone has not received any compensation for his work on behalf of Nanotope since joining the Company on December 1, 2007. Dr. Anzalone has also waived his right to any unpaid compensation accrued for work done on behalf of Nanotope before he joined the Company.

Dr. Anzalone did not participate on behalf of the Company in the negotiations of the terms of the Nanotope Series B issued to the Company and did not negotiate on behalf of Nanotope after becoming the Chief Executive Officer and President of the Company. Dr. Anzalone did respond to questions asked of him by the Company’s board of directors and management regarding Nanotope’s business plan, operations and the terms of the Series B Stock Purchase Agreement and ancillary agreements.

During the fiscal year ended September 30, 2008, the Company entered into subscription agreements with certain investors (the “**Investors**”) and with members of the management team, including Dr. Anzalone, Mark Tilley, Vice President, Advanced Materials and John Miller, relating to the offering and sale of a total of 3,863,989 units, with each unit consisting of one share of common stock and a warrant to purchase one share of common stock. Of the units sold in the offering, 3,683,660 units were sold to Investors at a purchase price of \$1.80 per unit and 180,329 units in aggregate were sold to Dr. Anzalone, Dr. Tilley and Mr. Miller at a purchase price of \$1.83 per unit. The last reported sale price of the Company’s common stock on the NASDAQ Global Market on August 15, 2008, the day the offering was launched, was \$1.70.

#### **Investor Information; Form 10-K**

All reports filed by the Company with the SEC are available free of charge via EDGAR through the SEC website at [www.sec.gov](http://www.sec.gov). In addition, the public may read and copy materials filed by the Company with the SEC at the SEC’s public reference room located at 100 F St., N.W., Washington, D.C., 20549. You can obtain information about the operation of the SEC’s Public Reference Room by calling the SEC at 1-800-SEC-0330. The Company also provides copies of its Forms 10-K, S-3, 10-Q, 8-K, Proxy, and press releases at no charge to investors upon request and makes electronic copies of such reports and press releases available through its website at [www.arrowheadresearch.com](http://www.arrowheadresearch.com) as soon as reasonably practicable after filing such material with the SEC. Requests should be sent to the Company attention: Investor Relations.

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

We may satisfy SEC rules regarding delivery of proxy statements by delivering a single proxy statement to an address shared by two or more of our stockholders. This delivery method can result in meaningful cost savings for us. To take advantage of this opportunity, we may deliver only one proxy statement 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 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 proxy statement 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 proxy statement either now or in the future, please contact us at the address provided below.

Arrowhead Research Corporation  
201 S. Lake Avenue, Suite 703  
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 enclosed proxy card to vote the shares they represent as the Board may recommend.

BY ORDER OF THE BOARD OF DIRECTORS

/s/ Jane Davidson

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

Pasadena, California  
February 18, 2009

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Annex A

ARROWHEAD RESEARCH CORPORATION  
2004 EQUITY INCENTIVE PLAN, AS AMENDED

**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.

2.8 "Change in Control" is defined in Section 15.4.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

2.21 "Option" means an Incentive Stock Option or a Nonqualified Stock Option.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### SECTION 3 ADMINISTRATION

3.1 The Committee. The Plan shall be administered by a committee of the Board that meets the requirements of this Section 3.1 (hereinafter referred to as "the Committee"). The Committee shall consist

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

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

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

The Compensation Committee shall have the authority to institute an option exchange program whereby optionees (including officers and directors) may exchange their options for options with a lower exercise price; provided, however, that any exchange program shall comply with the following requirements: (i) only one option exchange program can be implemented without further stockholder approval; (ii) only options with exercise prices in excess of 200 percent of the Fair Market Value of a Share shall be eligible to participate in the exchange program; (iii) the new price for options participating in the exchange program must be at a premium of at least 50% above fair market value on the effective date of repricing; and (iv) any person participating in the option exchange program will not be eligible to receive additional option grants until six months after the option exchange program is initiated. The Compensation Committee may impose additional requirements on the option exchange program including, for example, value for value exchange and/or new vesting schedules.

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

#### SECTION 4 SHARES SUBJECT TO THE PLAN

##### 4.1 *Shares Available.*

4.1.1 *Maximum Shares Available under Plan.* The aggregate number of Shares available for issuance under the Plan may not exceed six million Shares. Such Shares may be authorized but unissued shares or treasury shares. Options or SARs with respect to no more than two million Shares may be granted to any one individual grantee during any one calendar year period.

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

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

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

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

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

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

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

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

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

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

## SECTION 5 STOCK OPTIONS

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

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

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

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

5.3.2 *Incentive Stock Options*. In the case of an Incentive Stock Option, the Option Price shall be not less than one hundred percent (100%) of the Fair Market Value of a Share on the date that the

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

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

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

5.4.1 *Expiration Dates*.

(a) The date for termination of the Option set forth in the Award Agreement;

(b) The expiration of ten years from the date the Option was granted, or

(c) The expiration of three months from the date of the Participant's Termination of Employment for a reason other than the Participant's death, Disability or Retirement, or

(d) The expiration of twelve months from the date of the Participant's Termination of Employment by reason of Disability, or

(e) The expiration of twelve months from the date of the Participant's death, if such death occurs while the Participant is in the employ or service of the Company or an Affiliate.

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

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

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

(a) cash;

(b) check;

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

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

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

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

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

5.8 Certain Additional Provisions for Incentive Stock Options.

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

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

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

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

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

## SECTION 6 STOCK APPRECIATION RIGHTS

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

6.2 Exercise of Tandem SARs. Tandem SARs may be exercised for all or part of the Shares subject to the related Option upon the surrender of the right to exercise the equivalent portion of the related Option. A

Tandem SAR may be exercised only with respect to the Shares for which its related Option is then exercisable.

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

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

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

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

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

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

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

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

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

## SECTION 7 RESTRICTED STOCK

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

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

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

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

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

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

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

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

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

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

## SECTION 8 PERFORMANCE UNITS AND PERFORMANCE SHARES

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

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

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

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

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

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

## SECTION 9 BENEFICIARY DESIGNATION

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

## SECTION 10 DEFERRALS

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

## SECTION 11 RIGHTS OF EMPLOYEES AND CONSULTANTS

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

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

SECTION 12  
AMENDMENT, SUSPENSION, OR TERMINATION

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

SECTION 13  
TAX WITHHOLDING

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

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

SECTION 14  
INDEMNIFICATION

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

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

15.1 *Changes in Capitalization; No Award Repricing*. Subject to any required action by the shareholders of the Company, the number of Shares covered by each outstanding Award, and the number of Shares which have been authorized for issuance under the Plan but as to which no Awards have yet been granted or which have been returned to the Plan upon cancellation or expiration of an Award, as well as the price per Share covered by each such outstanding Award, shall be proportionately adjusted for any increase or decrease in the number of issued Shares resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Shares, or any other increase or decrease in the number of issued Shares effected without receipt of consideration by the Company; *provided, however*, that conversion of

any convertible securities of the Company shall not be deemed to have been “effected without receipt of consideration.” Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of Shares subject to an Award.

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

15.3 Merger or Asset Sale. In the event of a merger of the Company with or into another corporation, or the sale of substantially all of the assets of the Company, each outstanding Award shall be assumed or an equivalent option or right substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the successor corporation refuses to assume or substitute for the Award, the Participant shall fully vest in and have the right to exercise the Award as to all of the Shares as to which it would not otherwise be vested or exercisable. If an Award becomes fully vested and exercisable in lieu of assumption or substitution in the event of a merger or sale of assets, the Committee shall notify the Participant in writing or electronically that the Award shall be fully vested and exercisable for a period of fifteen (15) days from the date of such notice, and the Award shall terminate upon the expiration of such period. For the purposes of this paragraph, the Award shall be considered assumed if, following the merger or sale of assets, the option or right confers the right to purchase or receive, for each Share subject to the Award immediately prior to the merger or sale of assets, the consideration (whether stock, cash, or other securities or property) received in the merger or sale of assets by holders of Shares for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or sale of assets is not solely common stock of the successor corporation or its Parent, the Committee may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Award, for each Share subject to the Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Shares in the merger or sale of assets.

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

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

(b) Consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company

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

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

#### SECTION 16 CONDITIONS UPON ISSUANCE OF SHARES

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

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

#### SECTION 17 INABILITY TO OBTAIN AUTHORITY

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

#### SECTION 18 RESERVATION OF SHARES

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

#### SECTION 19 LEGAL CONSTRUCTION

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

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

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

19.4 Securities Law Compliance. With respect to Section 16 Persons, transactions under this Plan are intended to comply with all applicable conditions of Rule 16b-3. To the extent any provision of the Plan,

Award Agreement or action by the Committee fails to so comply, it shall be deemed null and void, to the extent permitted by law and deemed advisable by the Committee.

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

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

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**Annex B**

STOCK OPTION AGREEMENT, AS AMENDED

**ARROWHEAD RESEARCH CORPORATION**  
**Stock Option Agreement**

This Stock Option Agreement (the “**Agreement**”) is made and entered into as of the Effective Date by Dr. Christopher Anzalone (“**Executive**”) and Arrowhead Research Corporation, a Delaware corporation (or successor thereto, the “**Company**”) with respect to the terms of Executive’s stock option grant by the Company. Certain capitalized terms are defined in Section 13 hereof.

WHEREAS, the Company and Executive have previously entered into a letter agreement, dated as of November 19, 2007, outlining the terms of Executive’s employment with the Company, including the grant of stock options to Executive; and

WHEREAS, the Company and Executive desire to enter into this Agreement.

NOW THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

**AGREEMENT**

1. **Grant of Option**. This Agreement evidences the grant by the Company, on December 3, 2007 (the “**Initial Grant Date**”), to Executive, of an option (the “**Option**”) to purchase, in whole or in part, on the terms provided herein, a total of Two Million (2,000,000) shares of the Company’s common stock (the “**Shares**”) at \$3.92 per Share (the “**Exercise Price**”). The Exercise Price is equal to the closing price of the Company’s common stock on the NASDAQ National Market on the Initial Grant Date. Unless earlier terminated, this Option shall expire at 5:00 p.m., Eastern Time, on December 3, 2017 (the “**Final Exercise Date**”). To the maximum extent possible, this Option shall be treated as an “incentive stock option” as such term is defined in Code Section 422.

2. **Vesting Schedule**.

(a) Subject to **Sections 7 and 11** hereof, and except as described in **Section 2(b)** hereof, this Option shall vest, so long as Executive is an employee of the Company, over four (4) years as follows: (i) the first Two Hundred Fifty Thousand Shares (250,000) shall vest on the six (6) month anniversary of the Initial Grant Date and (ii) forty one thousand six hundred sixty-seven (41,667) Shares shall vest on each monthly anniversary thereafter in forty-two (42) equal installments, after which time this Option shall be vested as to one hundred percent (100%) of the Shares.

(b) The right of exercise shall be cumulative so that to the extent this Option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all Shares for which it is vested until the earlier of the Final Exercise Date and the termination of this Option under **Section 5** hereof.

3. Exercise of Option.

(a) Method of Exercise. This Option is exercisable before its expiration or termination by delivery of an exercise notice, in the form attached as Exhibit A (the “**Exercise Notice**”), which shall state the election to exercise this Option, the number of Shares in respect of which this Option is being exercised (the “**Exercised Shares**”), and such other representations and agreements as may be required by the Company. The Exercise Notice shall be completed by the Optionee and delivered to the Secretary of the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by such aggregate Exercise Price.

(b) Compliance with Applicable Laws. No Shares shall be issued pursuant to the exercise of this Option unless such issuance and exercise complies with Applicable Laws. Assuming such compliance, for income tax purposes the Exercised Shares shall be considered transferred to the Optionee on the date the Option is exercised with respect to such Exercised Shares.

4. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash;

(b) check;

(c) other shares of common stock which (i) in the case of shares acquired upon exercise of an Option, have been owned by the Optionee 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; or

(e) any combination of the foregoing methods of payment.

5. Termination of Option. This Option shall terminate upon the first to occur of the following events:

(a) The expiration of three months from the date of the Executive’s Termination of Employment for a reason, other than for “**Cause**,” as such term is defined in the Employment Agreement, or the Executive’s death, Disability or Retirement, or

(b) The Final Exercise Date, in the case of Executive’s Retirement, or

(c) The expiration of twelve months from the date of the Executive’s Termination of Employment by reason of Disability, or

(d) The expiration of twelve months from the date of the Executive’s death, if such death occurs while the Executive is in the employ or service of the Company or an Affiliate, or

(e) Immediately upon Executive’s Termination of Employment for “**Cause**,” as such term is defined in the Employment Agreement.

6. Non-Transferability of Option and Shares. This Option may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will, the laws of descent and distribution. All Options granted pursuant to this Agreement shall be exercisable during Executive's lifetime only by Executive.

7. Board of Directors Discretion. The Board of Directors, in its sole and absolute discretion, may extend the maximum term of this Option or accelerate the vesting of this Option, subject to restrictions of Applicable Law. The Board of Directors may impose such restrictions on any Shares acquired pursuant to the exercise of this 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.

8. Beneficiary Designation. Executive may name a beneficiary or beneficiaries to whom any unpaid vested Option shall be paid in event of Executive's death. Each such designation shall revoke all prior designations by Executive and shall be effective only if given in a form and manner acceptable to the Board of Directors. In the absence of any such designation, benefits remaining unpaid at Executive's death shall be paid to Executive's estate and, subject to the limitations set forth in this Agreement; any unexercised vested Option may be exercised by Executive's estate.

9. No Employment Rights. Nothing in this Agreement shall interfere with or limit in any way the right of the Company to terminate Executive's employment or service at any time, with or without cause.

10. Tax Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to this Option, the Company shall deduct or withhold, or require Optionee to remit to the Company, an amount sufficient to satisfy Federal, state, and local taxes required to be withheld with respect to this Option. The Board of Directors, in its sole and absolute discretion and pursuant to such procedures as it may specify from time to time, may permit Optionee to satisfy the minimum statutory tax withholding obligation, in whole or in part, by delivering to the Company shares of Company common stock already owned for more than six (6) months having a value equal to the amount required to be withheld. The value of the shares of Company common stock to be delivered will be based on their Fair Market Value on the date of delivery.

11. Dissolution, Merger or Asset Sale.

(a) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Board of Directors shall notify Optionee as soon as practicable prior to the effective date of such proposed transaction. The Board of Directors in its discretion may provide for Optionee to have the right to exercise this Option until ten (10) days prior to such transaction as to all of the Shares covered thereby. In addition, the Board of Directors may provide that any Company repurchase option applicable to any Shares purchased upon exercise of an Option 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 Option will terminate immediately prior to the consummation of such proposed action.

(b) 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 Option 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 this Option, the Optionee shall fully vest in and have the right to exercise this Option as to all of the Shares as to which it would not otherwise be vested or exercisable. If an Option becomes fully vested and exercisable in lieu of assumption or substitution in the event of a merger or sale of assets, the Board of Directors shall notify the Optionee in writing or electronically that the Option shall be fully vested and exercisable for a period of fifteen (15) days from the date of such notice, and this Option shall terminate upon the expiration of such period. For the purposes of this paragraph, this Option 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 this Option 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 Board of Directors may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option, for each Share subject to this Option, 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.

(c) Change in Control. In the event of a Change of Control (as defined below), except as otherwise determined by the Board, Optionee shall fully vest in and have the right to exercise this Option as to all of the Shares, including Shares as to which he would not otherwise be vested or exercisable. If this Option becomes fully vested and exercisable as the result of a Change of Control, the Board of Directors shall notify Optionee in writing or electronically prior to the Change of Control that this Option shall be fully vested and exercisable for a period of fifteen (15) days from the date of such notice, and this Option shall terminate upon the expiration of such period. A “Change of Control” means the happening of any of the following events:

(i) 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

(ii) The stockholders of the Company approve 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

(iii) A change in the composition of the Board of Directors of the Company, as a result of which less 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 of this Agreement, 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).

12. Representations and Conditions Upon Issuance of Shares.

(a) Accredited Investor Status. Executive is an “accredited investor” within the meaning of Rule 501(a) of Regulation D promulgated by the SEC under the Securities Act, has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of Executive’s prospective investment in the Company through exercise of all or a part of this Option hereunder; and has the ability to bear the economic risks of Executive’s prospective investment, including a complete loss of the investment.

(b) Legal Compliance. Shares shall not be issued pursuant to the exercise of this Option unless the exercise of such Option 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.

(c) Securities Law Compliance. Executive is a Section 16 Person, and transactions under this Agreement are intended to comply with all applicable conditions of Rule 16b-3. To the extent any provision of this Agreement or action by the Board of Directors fails to so comply, it shall be deemed null and void, to the extent permitted by law and deemed advisable by the Board of Directors.

(d) Investment Representations. As a condition to the exercise of this Option, the Company may require Optionee 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.

(e) 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.

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

**“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.

**“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 this Options is granted.

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

“**Change in Control**” is defined in Section 11(c) hereof.

“**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.

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

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

“**Effective Date**” means December 3, 2007.

“**Employment Agreement**” means the Employment Agreement by Executive and the Company dated as of June 11, 2008, as amended or restated from time to time.

“**Exchange 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.

“**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 Board of Directors deems reliable;

(b) If the Company’s common stock is 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 Company’s common stock 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 Board of Directors deems reliable; or

(c) In the absence of an established market for the Company’s common stock, the Fair Market Value shall be determined in good faith by the Board of Directors.

“**Optionee**” means Executive or any other person authorized to exercise the Option pursuant to this Agreement.

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

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

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

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

“**Termination of Employment**” means a cessation of the employee-employer or director or other service arrangement relationship between Executive 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.

#### 14. Legal Construction

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

(b) Entire Agreement. This Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof and supersedes in their entirety all prior undertakings and agreements of the Company and Executive with respect to the subject matter hereof, and may not be modified adversely to Executive’s interest except by means of a writing signed by the Company and Executive.

(c) Governing Law. This Agreement shall be construed in accordance with and governed by the laws of the State of California, without regard to principles of conflicts of law.

(d) Captions. Captions are provided herein for convenience only, and shall not serve as a basis for interpretation or construction of this Agreement.

15. Permitted Option Exchange. The Compensation Committee of the Board of Directors (the “Committee”) shall have the authority to include the Executive in any option exchange program and thereby exchange the Option for a stock option with a lower exercise price; provided, however, that any exchange program shall comply with the following requirements: (i) only one option exchange can be implemented without further stockholder approval; (ii) the Option will only be eligible for exchange if the Exercise Price is in excess of 200 percent of the Fair Market Value of a Share; (iii) the new price for the option must be at a premium of at least 50 percent above fair market value of the common stock on the effective date of repricing; and (iv) the Executive will not be eligible to receive additional option grants until six months after the option exchange is initiated. The Committee may impose additional requirements on the option exchange including, for example, value for value exchange and/or new vesting schedules.

EXECUTIVE

ARROWHEAD RESEARCH  
CORPORATION

---

Dr. Christopher Anzalone

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By: Paul C. McDonnel  
Title: Chief Financial Officer

Address:

201 S. Lake Avenue, Suite 703  
Pasadena, California 91101

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EXHIBIT A

ARROWHEAD RESEARCH CORPORATION

EXERCISE NOTICE

Arrowhead Research Corporation  
201 S. Lake Avenue, Suite 703  
Pasadena, California 91101  
Attention: Secretary

1. Exercise of Option. Effective as of today, \_\_\_\_\_, \_\_\_\_\_ the undersigned ("**Purchaser**") hereby elects to purchase \_\_\_\_\_ shares (the "**Shares**") of the Common Stock of Arrowhead Research Corporation (the "**Company**") under and pursuant to the Stock Option Agreement dated \_\_\_\_\_, \_\_\_\_\_ (the "**Option Agreement**"). The purchase price for the Shares shall be \$\_\_\_\_\_, as required by the Option Agreement.

2. Delivery of Payment. Purchaser herewith delivers to the Company the full purchase price for the Shares.

3. Representations of Purchaser. Purchaser acknowledges that Purchaser has received, read and understood the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Shareholder. Until the issuance (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) of the Shares, no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Shares so acquired shall be issued to the Purchaser as soon as practicable after exercise of the Option.

5. Tax Consultation. Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser's purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted with any tax consultants Purchaser deems advisable in connection with the purchase or disposition of the Shares and that Purchaser is not relying, on the Company for any tax advice.

6. Entire Agreement: Governing Law. This Option Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Purchaser with respect to the subject matter hereof, and may not be modified adversely to the Purchaser's interest except by means of a writing signed by the Company and Purchaser. This letter is governed by the internal substantive laws, but not the choice of law rules, of California.

Exhibit A

Submitted by:

PURCHASER

\_\_\_\_\_  
Signature

Date Received

\_\_\_\_\_

Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Accepted by:

ARROWHEAD RESEARCH  
CORPORATION

\_\_\_\_\_  
By: \_\_\_\_\_

Title: \_\_\_\_\_

Date Received

\_\_\_\_\_

Address:

201 S. Lake Avenue, Suite 703  
Pasadena, California 91101

Exhibit A

**DETACH HERE**

**PROXY**

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS**

**ARROWHEAD RESEARCH CORPORATION**

**ANNUAL MEETING OF STOCKHOLDERS**

**THURSDAY MARCH 26, 2009**

The undersigned stockholder of ARROWHEAD RESEARCH CORPORATION, a Delaware corporation, hereby acknowledges receipt of the Notice of Annual Meeting of Stockholders and Proxy Statement, each dated February 18, 2009, and hereby appoints R. Bruce Stewart, Christopher Anzalone and Paul C. McDonnel, 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 March 26, 2009 at 10:00 a.m., local time, at the Sheraton Pasadena, 303 E. Cordova Street, Pasadena, CA 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.

[SEE REVERSE SIDE] CONTINUED AND TO BE SIGNED ON REVERSE SIDE [SEE REVERSE SIDE]

DETACH HERE

Please mark votes as in this example

1. ELECTION OF DIRECTORS       **FOR** all nominees listed below (except as marked to the contrary below)       **WITHHOLD AUTHORITY** (to vote for all nominees listed below)       **EXCEPTIONS**

*Director Nominees:*                      R. Bruce Stewart                      Christopher Anzalone                      Edward W. Frykman                      LeRoy T. Rahn  
    Charles P. McKenney

**(INSTRUCTION: To withhold authority to vote for any individual nominee mark the "Exceptions" box and write that nominee's name on the space below.)**

2. PROPOSAL TO APPROVE AN AMENDMENT TO THE COMPANY'S 2004 EQUITY INCENTIVE PLAN THAT WOULD INCREASE THE NUMBER OF SHARES OF COMMON STOCK RESERVED FOR ISSUANCE UNDER THE PLAN FROM 5,000,000 SHARES TO 6,000,000 SHARES AND AMEND CERTAIN PROVISIONS OF THE PLAN.

- FOR**     **AGAINST**     **ABSTAIN**

3. PROPOSAL TO APPROVE AN AMENDMENT TO THE COMPANY'S 2004 EQUITY INCENTIVE PLAN THAT WOULD PERMIT AN OPTION EXCHANGE PROGRAM, WITHIN CERTAIN PARAMETERS, WITHOUT FURTHER STOCKHOLDER APPROVAL.

- FOR**     **AGAINST**     **ABSTAIN**

4. PROPOSAL TO APPROVE AN AMENDMENT TO AN INDUCEMENT GRANT TO PERMIT A ONE-TIME OPTION EXCHANGE, WITHIN CERTAIN PARAMETERS, WITHOUT FURTHER STOCKHOLDER APPROVAL.

- FOR**     **AGAINST**     **ABSTAIN**

5. PROPOSAL TO RATIFY THE SELECTION OF ROSE, SNYDER & JACOBS AS INDEPENDENT AUDITORS OF THE COMPANY FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2009.

- FOR**     **AGAINST**     **ABSTAIN**

PLEASE CHECK HERE IF YOU PLAN TO ATTEND THE MEETING

(This Proxy should be marked, dated and signed by the stockholder(s) exactly as his or her name appears hereon, and returned promptly in the enclosed envelope. Persons signing in a fiduciary capacity should so indicate. If shares are held by joint tenants or as community property, both should sign.)

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

This Proxy, when properly executed, will be voted in the manner directed herein by the undersigned shareholder. If no direction is made, this consent will be IN FAVOR OF Proposals 1, 2, 3, 4 and 5 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.