

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

**SCHEDULE 14A**

(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT  
SCHEDULE 14A INFORMATION

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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement  
 **Confidential, For Use of the Commission Only (as permitted by 14a-6(e)(2))**  
 Definitive Proxy Statement  
 Definitive Additional materials  
 Soliciting Material under §240.14a-12

**ARROWHEAD RESEARCH CORPORATION**

(Name of Registrant as Specified in Its Charter)

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

Payment of filing fee (Check the appropriate box):

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

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

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

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

(4) Proposed maximum aggregate value of transaction:

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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:

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

(3) Filing party:

(4) Date filed:

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

September 4, 2009

Dear Arrowhead Stockholders:

The Board of Directors of Arrowhead Research Corporation has called a Special Meeting of Stockholders to be held on Tuesday, October 6, 2009 at 10:00 a.m. Pacific time. The Special Meeting was called to approve proposals that we believe are crucial to Arrowhead's future, especially with regard to the Company's financial health and its ability to maintain the listing for our common stock on NASDAQ Capital Market.

The proposals include the following:

1. A proposal to grant the Board of Directors the authority to effect a reverse split of Arrowhead common stock within a given range within one year of the Special Meeting, should the Board deem such a move to be in the Company's best interests. While we have no immediate plans to implement a reverse stock split, we believe this authorization is an important proactive step that will enable the company to move quickly should the Board decide a reverse split would enhance or maintain stockholder value, including if needed to maintain our listing on NASDAQ.
2. A proposal to increase the number of shares of common stock available for issuance. Currently, there are no additional shares of common stock available for issuance for any purpose, including for potential future financing transactions. Management and the Board believe that it is critical for the future of the Company to have the ability to issue common stock to help finance the Company's operations, incentivize employees and capitalize on strategic opportunities that may enhance stockholder value.
3. A proposal to grant a limited number stock options from an existing stock option plan to employees and directors who surrendered options for an aggregate of approximately 4 million shares of common stock in order to facilitate Arrowhead's August 2009 financing. At the time of the forfeiture, there was no agreement, explicit or otherwise, to replace the surrendered options. The Board now seeks to grant options for up to 2 million shares (approximately one-half of what was forfeited) to those who surrendered options in order to ensure that employees and directors have meaningful equity participation in the Company. Importantly, this does not represent an increase in the existing share pool because these are not "new shares". Rather, the proposed grants would come out of an existing options pool, already approved by stockholders.

The Special Meeting will be held at Arrowhead's offices, located at 201 South Lake Avenue, Suite 703, Pasadena, California.

Your vote is important. Whether or not you plan to attend the Special Meeting, I urge you to take a moment to vote your approval on the items included in this proxy statement. Voting takes only a few minutes, and it will ensure that your shares are represented at the Special Meeting and may save the Company from incurring additional proxy solicitation costs.

Sincerely,

/s/ Christopher R. Anzalone, Ph.D.  
Christopher R. Anzalone, Ph.D.  
President and CEO

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

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NOTICE OF SPECIAL MEETING OF STOCKHOLDERS  
TO BE HELD ON TUESDAY, OCTOBER 6, 2009

TO THE STOCKHOLDERS OF ARROWHEAD RESEARCH CORPORATION:

NOTICE IS HEREBY GIVEN that a Special Meeting of Stockholders of Arrowhead Research Corporation, a Delaware corporation (the “**Company**”), will be held on October 6, 2009, at 10:00 a.m., Pacific time, at the offices of the Company, located at 201 South Lake Avenue, Suite 703 Pasadena, California for the following purposes:

1. To grant the Board of Directors the authority to effect a reverse split of our Common Stock at a specific ratio within a range from 1-for-2 to 1-for-15;
2. To amend our Certificate of Incorporation to increase the number of authorized shares of Common Stock by 75 million shares;
3. To authorize the issuance of equity grants to directors, officers and employees of the Company under our 2004 Equity Incentive Plan; and
4. To adjourn the Special Meeting, if necessary, to solicit additional proxies, if there are not sufficient votes in favor of the foregoing proposals.

The foregoing items of business are more fully described in the Proxy Statement accompanying this Notice.

Only stockholders of record at the close of business on August 12, 2009, are entitled to notice of and to vote at the Special Meeting.

All stockholders of record are cordially invited to attend the Special 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 Special Meeting may vote in person even if such stockholder has previously returned a proxy.

/s/ Jane Davidson  
Jane Davidson  
Secretary

Pasadena, California  
September 4, 2009

**Your vote is important, whether or not you expect to attend the Special 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 SPECIAL MEETING OF STOCKHOLDERS**  
**TO BE HELD ON TUESDAY, OCTOBER 6, 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 a Special Meeting of Stockholders (the “**Special Meeting**”) to be held on Tuesday, October 6, 2009, at 10:00 a.m., Pacific time, and at any adjournment(s) thereof, for the purposes set forth herein and in the accompanying Notice of Special Meeting of Stockholders. The Special Meeting will be held at the offices of the Company, located at 201 South Lake Avenue, Suite 703, Pasadena, California.

The Company anticipates that these proxy solicitation materials will first be mailed on or about September 9, 2009, to all stockholders entitled to notice of and to vote at the Special Meeting.

**Record Date**

Only holders of record of voting stock at the close of business on August 12, 2009 (the “**Record Date**”) are entitled to notice of and to vote at the Special Meeting. On that date, the Company had outstanding 55,400,230 shares of common stock, par value \$0.001 per share (“**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 Special Meeting, a written notice of revocation or a duly executed proxy bearing a later date or by attending the Special 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 Special Meeting.

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 in favor of the proposals presented herein. No business other than that set forth in the accompanying Notice of Special Meeting of Stockholders is expected to come before the Special 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 Special 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 Special 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 Special Meeting (the “**Votes Cast**”) with respect to such matter. Shares voting as “abstained” or subject to a “broker non-vote” (shares held in brokerage accounts where the broker does not have discretionary authority to

vote on such matters) 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 Proposals One and Two, a majority of the shares outstanding as of the Record Date must vote in favor of such proposals for them to be approved. Accordingly, abstentions and broker non-votes will have the same effect as a vote against these proposals. With regard to Proposals Three and Four, the affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote on such proposals is required for approval. Accordingly, abstentions and broker non-votes will be excluded from the vote and will have no effect on its outcome.

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 Special 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, California 91101, not later than October 7, 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.

Additionally, under the Company's bylaws, any stockholder who intends to present a proposal at the Company's 2010 Annual Meeting of Stockholders must give the Company advanced notice of the proposal no later than January 6, 2010, which is 45 days before the one-year anniversary of the mailing date for the proxy statement relating to the 2009 Annual Meeting of Stockholders. However, if the date of the 2010 Annual Meeting of Stockholders changes 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.

#### **No Dissenters' Rights of Appraisal**

In connection with each of 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

### APPROVAL OF AMENDMENT TO THE COMPANY'S CERTIFICATE OF INCORPORATION TO EFFECT A REVERSE STOCK SPLIT

#### Introduction

The Board is recommending that the stockholders approve an amendment to the Company's Certificate of Incorporation (the "**Charter**") to effect a reverse stock split of the Company's outstanding shares of Common Stock at a ratio within a range of 1-for-2 to 1-for-15. If this proposal is approved, the Board or a committee of the Board will have the authority to decide, within twelve months from the Special Meeting, whether to implement the split and the exact ratio of the split within this range, if it is to be implemented. If the Board decides to implement the split, it will become effective upon the filing of the amendment to the Company's Charter with the Secretary of State of the State of Delaware (the "**Effective Date**"). If the reverse split is implemented, the number of issued and outstanding shares of Common Stock would be reduced in accordance with the exchange ratio selected by the Board or committee. The total number of authorized shares of Common Stock would not, however, be affected. The form of amendment to the Company's Charter to effect the reverse split is attached as *Annex A* to this proxy statement.

The Board may not elect to implement a reverse split. However, the Board believes that having the time-limited authority to take such an action is an important proactive step to maintain and build stockholder value.

#### Purpose and Background of the Reverse Split

The Board's primary objective in asking for the authority to effect a reverse split is to raise the per share trading price of our Common Stock. The Board believes that having the ability to implement a reverse split would better enable the Company to maintain the listing of its Common Stock on The NASDAQ Capital Market. Also, if the reverse split is implemented, the Board believes it would facilitate higher levels of institutional stock ownership, where investment policies generally prohibit investments in lower-priced securities and better enable the Company to raise funds to finance operations.

The Company's Common Stock is currently quoted on The NASDAQ Capital Market. In order for the Common Stock to continue to be quoted on The NASDAQ Capital Market, the Company must satisfy various listing standards established by NASDAQ. Among other things, if the closing bid price of the Company's Common Stock is under \$1.00 per share for 30 consecutive trading days and does not thereafter reach \$1.00 per share or higher for a minimum of ten consecutive business days during the 180 calendar days following notification by NASDAQ, NASDAQ may delist the Common Stock from trading. If a delisting from The NASDAQ Capital Market were to occur, the Common Stock would trade on the OTC Bulletin Board or in the "pink sheets." These alternative markets are generally considered to be less efficient than, and not as broad as, The NASDAQ Capital Market. Additionally, the Company is obligated contractually to use reasonable efforts to maintain the listing of the Common Stock on NASDAQ and the Board believes that it may be necessary to effect a reverse stock split in order to maintain this listing.

The closing sale price of the Company's Common Stock on the Record Date was \$0.43 per share and the Company's Common Stock has closed below \$1.00 per share continuously since January 13, 2009. Although the \$1.00 per share minimum closing bid requirement had been suspended by NASDAQ, the suspension was only effective through July 31, 2009. Accordingly, if the Company is not able to raise its stock price, the Common Stock may be subject to delisting.

The Board further believes that an increased stock price may encourage investor interest and improve the marketability of the Company's Common Stock to a broader range of investors, and thus improve liquidity. Because of the trading volatility often associated with low-priced stocks, many brokerage firms and institutional investors have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers. The Board believes that the anticipated higher market price resulting from a reverse stock split may enable institutional investors and brokerage firms with policies and practices such as those described above to invest in the Company's Common Stock.

The purpose of seeking stockholder approval of a range of exchange ratios from 1-for-2 to 1-for-15 (rather than a fixed exchange ratio) is to provide the Company with the flexibility to achieve the desired results of the reverse stock split. If the stockholders approve this proposal, the Board or a committee of the Board would effect a reverse stock split only upon the Board or the committee's determination that a reverse stock split would be in the best interests of the Company at that time. If the Board were to effect a reverse stock split, the Board would set the timing for such a split and select the specific ratio within the permitted range. No further action on the part of stockholders would be required to either implement or abandon the reverse stock split. If the stockholders approve the proposal, and the Board or a committee of the Board determines to effect the reverse stock split, we would communicate to the public, prior to the Effective Date, additional

details regarding the reverse split, including the specific ratio selected by the Board or committee. If the Board or a committee of the Board does not implement the reverse stock split within twelve months from the Special Meeting, the authority granted in this proposal to implement the reverse stock split will terminate. The Board reserves its right to elect not to proceed with the reverse stock split if it determines, in its sole discretion, that this proposal is no longer in the best interests of the Company.

### **Material Effects of Proposed Reverse Stock Split**

The Board believes that the reverse split will increase the price level of the Company's Common Stock, which is expected to help ensure continued compliance with the NASDAQ minimum bid price listing standard. The Board cannot predict, however, the actual effect of the reverse split upon the market price for the Common Stock, and the history of similar reverse stock splits for companies in like circumstances is varied. The market price per share of Common Stock after the reverse split may not rise in proportion to the reduction in the number of shares of Common Stock outstanding resulting from the reverse split, which would reduce the market capitalization of the Company. The market price per post-reverse split share may not remain in excess of the \$1.00 minimum bid price as required by NASDAQ, or the Company may not otherwise meet the requirements for continued listing on The NASDAQ Capital Market, including the stockholders' equity requirements. The market price of the Common Stock will also be based on our performance and other factors, the effect of which the Board cannot predict.

The reverse split will affect all stockholders of the Company uniformly and will not affect any stockholder's percentage ownership interests or proportionate voting power, except to the extent that the reverse split results in any of the stockholders owning a fractional share of Common Stock. In lieu of issuing fractional shares, the Company may either (i) directly pay each stockholder who would otherwise have been entitled to a fraction of a share an amount in cash equal to the closing sale price of the Common Stock, as quoted on NASDAQ on the Effective Date, multiplied by the fractional share amount, or (ii) make arrangements with the Company's transfer agent or exchange agent to aggregate all fractional shares otherwise issuable in the reverse stock split and sell these whole shares as soon as possible after the Effective Date at then prevailing market prices on the open market on behalf of those holders, and then pay each such holder his, her or its pro rata portion of the sale proceeds.

The principal effects of the reverse split will be that (i) the number of shares of Common Stock issued and outstanding will be reduced from approximately 55,400,230 shares as of the Record Date to a range of 27,700,115 to 3,693,349 shares, depending on the exact split ratio chosen by the Board or a committee of the Board, (ii) all outstanding options and warrants entitling the holders thereof to purchase shares of Common Stock will enable such holders to purchase, upon exercise of their options or warrants, from one-half to one-fifteenth of the number of shares of Common Stock which such holders would have been able to purchase upon exercise of their options or warrants immediately preceding the reverse split, at an exercise price equal to two to fifteen times the exercise price specified before the reverse split, resulting in the same aggregate price being required to be paid upon exercise thereof immediately preceding the reverse split and (iii) the number of shares reserved for issuance pursuant to our 2000 Stock Option Plan, 2004 Equity Incentive Plan and 2006 Executive Incentive Plan will be similarly reduced to one-half to one-fifteenth of the number of shares currently included in each such plan.

The reverse split will not affect the par value of the Common Stock. As a result, on the Effective Date, the stated capital on the Company's balance sheet attributable to the Common Stock will be reduced by the amount of the split ratio and the additional paid-in capital account will be credited with the amount by which the stated capital is reduced. The per share net loss and the per-share net book value of the Common Stock will be retroactively increased for each period because there will be fewer shares of Common Stock outstanding.

The amendment will not change the terms of the Common Stock. After the reverse split, the shares of common stock will have the same voting rights and rights to dividends and distributions and will be identical in all other respects to the Common Stock now authorized. Each stockholder's percentage ownership of the new Common Stock will not be altered except for the effect of eliminating fractional shares. The Common Stock issued pursuant to the reverse split will remain fully paid and non-assessable. The reverse split is not intended as, and will not have the effect of, a "going private transaction" covered by Rule 13e-3 under the Securities Exchange Act of 1934. Following the reverse split, the Company will continue to be subject to the periodic reporting requirements of the Securities Exchange Act of 1934.

Because the Company will not reduce the number of authorized shares of Common Stock, the overall effect will be an increase in authorized but unissued shares of Common Stock as a result of the reverse stock split. Other than the issuance of options as contemplated in Proposal Three, the Company has no current plans for the issuance of any shares that would become available as a result of this effective increase in authorized shares following the implementation of the reverse stock split. The Company does expect that it will need to raise additional capital and will do so through the issuance of common stock that would become available by this proposal or through Proposal Two, but there are no current offering terms that are being contemplated. Because of the different reasons for the reverse stock split and the proposed increase in the authorized number of shares of Common Stock as described below under Proposal Two, the approval and implementation of the share increase as described below is not expected to affect the Board's decision whether to implement the reverse stock split.

## Procedure for Effecting Reverse Split and Exchange of Stock Certificates

If the reverse split is approved by the Company's stockholders, and the Board or a committee of the Board determines it is in the best interests of the Company to effect the split, the reverse stock split would become effective at such time as the amendment to the Company's Charter, the form of which is attached as *Annex A* to this proxy statement, is filed with the Secretary of State of Delaware. Upon the filing of the amendment, all of the Company's existing Common Stock will be converted into new Common Stock as set forth in the amendment.

As soon as practicable after the Effective Date, stockholders will be notified that the reverse split has been effected. ComputerShare, Inc., the Company's transfer agent, will act as exchange agent for purposes of implementing the exchange of stock certificates. Holders of pre-reverse split shares will be asked to surrender to the exchange agent certificates representing pre-reverse split shares in exchange for certificates representing post-reverse split shares in accordance with the procedures to be set forth in a letter of transmittal that will be delivered to the Company's stockholders. No new certificates will be issued to a stockholder until the stockholder has surrendered to the exchange agent his, her or its outstanding certificate(s) together with the properly completed and executed letter of transmittal. **STOCKHOLDERS SHOULD NOT DESTROY ANY STOCK CERTIFICATES AND SHOULD NOT SUBMIT ANY CERTIFICATES UNTIL REQUESTED TO DO SO.** Stockholders whose shares are held by their stockbroker do not need to submit old share certificates for exchange. These shares will automatically reflect the new quantity of shares based on the reverse split. Beginning on the Effective Date, each certificate representing pre-reverse split shares will be deemed for all corporate purposes to evidence ownership of post-reverse split shares. Unclaimed certificates for the post-split shares may be tendered to state authorities by the transfer agent under applicable unclaimed property or "escheat" laws, in which case the stockholder would need to obtain the post-split shares from the relevant state authority.

## Fractional Shares

The Company will not issue fractional certificates for post-reverse split shares in connection with the reverse split. In lieu of issuing fractional shares, the Company may either (i) directly pay each stockholder who would otherwise have been entitled to a fraction of a share an amount in cash equal to the closing sale price of the Common Stock, as quoted on NASDAQ on the Effective Date, multiplied by the fractional share amount, or (ii) make arrangements with the Company's transfer agent or exchange agent to aggregate all fractional shares otherwise issuable in the reverse stock split and sell these whole shares as soon as possible after the Effective Date at then prevailing market prices on the open market on behalf of those holders, and then pay each such holder his, her or its pro rata portion of the sale proceeds.

## Certain U.S. Federal Income Tax Considerations Relating to the Reverse Split

The following is a summary of certain U.S. federal income tax considerations relating to the reverse stock split as of the date hereof. Except where noted, this summary deals only with a stockholder who holds Common Stock as a capital asset.

For purposes of this summary, a "U.S. holder" means a beneficial owner of Common Stock who is any of the following for U.S. federal income tax purposes: (i) a citizen or resident of the United States, (ii) a corporation created or organized in or under the laws of the United States, any state thereof, or the District of Columbia, (iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (iv) a trust if (1) its administration is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all of its substantial decisions, or (2) it has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person. A non-U.S. holder of Common Stock is a stockholder who is not a U.S. holder.

This summary is based upon provisions of the Internal Revenue Code of 1986, as amended (the "**Code**"), and regulations, rulings and judicial decisions as of the date hereof. Those authorities may be changed, perhaps retroactively, and may be subject to differing interpretations, so as to result in U.S. federal income tax considerations different from those summarized below. This summary does not represent a detailed description of the U.S. federal income tax consequences to a stockholder in light of his, her or its particular circumstances. In addition, it does not represent a description of the U.S. federal income tax consequences to a stockholder who is subject to special treatment under the U.S. federal income tax laws and does not address the tax considerations applicable to stockholders who may be subject to special tax rules, such as:

- partnerships;
- financial institutions;
- insurance companies;
- real estate investment trusts;

- regulated investment companies;
- grantor trusts;
- tax-exempt organizations;
- dealers or traders in securities or currencies;
- stockholders who hold Common Stock as part of a position in a straddle or as part of a hedging, conversion or integrated transaction for U.S. federal income tax purposes or U.S. holders that have a functional currency other than the U.S. dollar;
- stockholders who actually or constructively own 10 percent or more of the Company's voting stock; or
- a non-U.S. holder who is a U.S. expatriate, "controlled foreign corporation" or "passive foreign investment company."

Moreover, this description does not address the U.S. federal estate and gift tax, alternative minimum tax or other tax consequences of the reverse stock split.

If an entity classified as a partnership for U.S. federal income tax purposes holds Common Stock, the tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership.

***Each stockholder should consult his, her or its own tax advisers concerning the particular U.S. federal tax consequences of the reverse stock split, as well as the consequences arising under the laws of any other taxing jurisdiction, including any state, local or foreign income tax consequences.***

***To ensure compliance with Treasury Department Circular 230, each holder of Common Stock is hereby notified that: (a) any discussion of U.S. federal tax issues in this proxy statement is not intended or written to be used, and cannot be used, by such holder for the purpose of avoiding penalties that may be imposed on such holder under the Code; (b) any such discussion has been included by the Company in furtherance of the reverse stock split on the terms described herein; and (c) each such holder should seek advice based on its particular circumstances from an independent tax advisor.***

*U.S. Holders.* Generally, a reverse stock split will not result in the recognition of gain or loss by a U.S. holder for U.S. federal income tax purposes (except to the extent of cash received in lieu of a fractional share). The aggregate adjusted basis of the new shares of Common Stock will be the same as the aggregate adjusted basis of the Common Stock exchanged for such new shares, reduced by the amount of the adjusted basis of any Common Stock exchanged for such new shares that is allocated to the fractional share for which cash is received. The holding period of the new, post-reverse split shares of the Common Stock resulting from implementation of the reverse stock split will include a U.S. holder's holding periods for the pre-reverse split shares. A stockholder who receives cash in lieu of a fractional share of new Common Stock generally will recognize taxable gain or loss equal to the difference, if any, between the amount of cash received and the portion of the stockholder's aggregate adjusted tax basis in the shares of old common stock allocated to the fractional share. If the shares of old Common Stock allocated to the fractional shares were held by the stockholder as capital assets, the gain or loss resulting from the payment of cash in lieu of the issuance of a fractional share will be taxed as capital gain or loss. Such capital gain or loss will be short term if the pre-reverse split shares were held for one year or less and long term if held more than one year.

*Non U.S. Holders.* A non-U.S. holder of the Company's Common Stock generally will not be subject to U.S. federal income tax with respect to any gain recognized as a result of cash received in lieu of a fractional share in connection with the reverse stock split; provided, however, that gain will be subject to tax if (i) the gain is effectively connected with a trade or business of the non-U.S. holder in the U.S. (in which case, for a non-U.S. holder that is a foreign corporation, the branch profits tax may also apply), and, where a tax treaty applies, is attributable to a U.S. permanent establishment of the non-U.S. holder, (ii) the gain is recognized by a non-U.S. holder who is present in the United States for 183 or more days in the taxable year of the reverse stock split and certain other conditions are met, or (iii) the Company is or has been a "U.S. real property holding corporation" for U.S. federal income tax purposes. The Company believes it currently is not and it does not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes.

*Information Reporting and Backup Withholding.* Payment of cash in lieu of fractional shares within the United States or conducted through certain U.S. related financial intermediaries is subject to both backup withholding and information reporting unless the beneficial owner certifies under penalties of perjury that it is not a U.S. holder (and the payor does not have actual knowledge or reason to know that the beneficial owner is a U.S. holder) or the stockholder otherwise establishes an exemption. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against such stockholder's U.S. federal income tax liability provided the required information is furnished to the Internal Revenue Service.

#### **Approval Required**

The affirmative vote of a majority of the shares issued and outstanding on the Record Date is required to approve the amendment of the Company's Charter to effect the reverse split of the Common Stock. Abstentions and "broker non-votes" will therefore have the same effect as negative votes.

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

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

#### **PROPOSAL TWO**

#### **APPROVAL OF AMENDMENT TO THE CHARTER TO INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK**

The Board has approved an amendment to our Charter to increase the number of authorized shares of Common Stock by an additional 75 million shares. As of the record date, the Company had 70,000,000 shares of Common Stock authorized for issuance, of which 55,400,230 shares were outstanding and 24,269,125 shares were reserved for future issuance under the Company's stock option plans, outstanding warrants and other purchase rights. If there are not sufficient shares of Common Stock available for issuance at the time of exercise, warrants exercisable for up to 9,196,642 shares of Common Stock would instead be exercisable for 91,966 shares of preferred stock. After taking into consideration those shares of Common Stock outstanding or reserved for issuance, the Company had no shares available for future issuance as of the Record Date.

The authorized shares of Common Stock currently available for future issuances is insufficient to raise additional capital that may be needed to continue operations and to enable the Company to respond to potential business opportunities that may arise. Further, the Board believes that the issuance of preferred stock in lieu of Common Stock would be less attractive to prospective investors and may require the issuance of securities with preferences that would negatively affect the rights of the holders of Common Stock. Accordingly, the Board believes that it is crucial to increase the number of authorized shares of Common Stock in order to provide the Company with the flexibility to issue additional shares from time to time as the Board may determine for financings, acquisitions or strategic business relationships. If Proposal One is approved and implemented, the Company would be able to effectively increase the number of authorized shares through the reverse stock split, given that the reverse split would have no effect on the authorized number of shares. However, the Board has not yet determined whether it wishes to effect a reverse split, even if it is approved by the stockholders. Accordingly, the Board is seeking stockholder approval for Proposal Two in addition to Proposal One so that the Company will have additional shares available for issuance promptly following the Special Meeting. If both proposals are implemented, the Company would have between 117 million and 141 million shares of common stock potentially available for future issuance, depending on the ratio of the reverse stock split.

Other than the issuance of options as contemplated in Proposal Three, the Company has no current plans for the issuance of any new shares that would be authorized by this proposal. The Company does expect that it will need to raise additional capital and will do so through the issuance of common stock that will be authorized by this proposal, but there are no current offering terms that are being contemplated.

The issuance of additional shares of Common Stock may have a dilutive effect on earnings per share and relative voting power. This proposal will have no effect on the number of shares of preferred stock authorized for issuance.

#### **Approval Required**

The affirmative vote of a majority of the shares issued and outstanding on the Record Date is required to approve the amendment of the Company's Charter to effect the increase in the number of authorized shares of Common Stock. Abstentions and "broker non-votes" will therefore have the same effect as negative votes.

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

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

## PROPOSAL THREE

### APPROVAL OF CERTAIN EQUITY GRANTS TO DIRECTORS, OFFICERS AND EMPLOYEES

#### Background

The Company commenced a private placement in July 2009 (the “**Offering**”), whereby it offered a maximum of 14 million shares of Common Stock and warrants to purchase an additional 14 million shares of Common Stock. Prior to consummating the Offering, the Company had 70,000,000 shares of Common Stock authorized for issuance, of which 42.9 million shares were issued and outstanding and 15.2 million shares were reserved for future issuance under outstanding options and warrants, leaving only 11.8 million shares available for issuance in the Offering. To facilitate the offering, directors and employees of the Company identified below (the “**Optionees**”) voluntarily surrendered certain options to purchase shares of Common Stock (the “**Surrendered Awards**”).

At the time the Surrendered Awards were tendered to the Company, there was no agreement or understanding that the Optionees would be granted new or replacement options or other equity awards in consideration for the Surrendered Awards. However, following the completion of the Offering, the Compensation Committee of the Board determined that the Optionees lacked meaningful equity compensation as an incentive for retention and long-term performance. The 2009 annual review for officers was omitted in light of the Company’s financial constraints and rather than wait until the annual review in 2010 and grant awards at that time, the Compensation Committee determined that it would be in the Company’s best interest to grant options or other equity-based awards as soon as possible. Such a grant of awards, which would be made under the Company’s 2004 Equity Incentive Plan (the “**Plan**”), would not normally require stockholder approval. However, the cancellation of awards and the granting of new awards to the same persons shortly thereafter may be deemed a repricing of the surrendered awards under NASDAQ rules, which prohibits option repricings unless an equity plan specifically permits such action. Accordingly, the Company is seeking stockholder approval for the proposed issuance of the new awards that may be issued to the individuals who surrendered the options listed below.

The following table sets forth information regarding the Surrendered Awards, including the name of the Optionee, the number of shares underlying the award(s), the exercise price and the expiration date.

#### SURRENDERED OPTION AWARDS

	Shares Underlying Awards	Exercise Price	Expiration Date	Percentage Vested as of August 1, 2009
<b>Non-Employee Directors</b>	150,000	2.52	5/25/2015	100%
	30,000	5.02	2/23/2016	100%
	75,000	5.24	5/26/2016	100%
	60,000	3.93	2/22/2017	100%
	60,000	2.55	3/13/2018	100%
Total Non-Employee Directors	<b>375,000</b>			
<b>Named Executive Officers</b>				
Christopher Anzalone Chief Executive Officer & President	2,000,000	\$ 3.92	12/01/2018	42%
R. Bruce Stewart Executive Chairman	250,000	2.52	5/25/2015	100%
	75,000	5.24	5/26/2016	100%
	250,000	4.34	3/29/2007	100%
Thomas Haag General Counsel & Chief Patent Officer	275,000	3.07	4/1/2018	33%
John Miller Vice President Business Development	50,000	5.25	5/26/2016	100%
Total Named Executive Officers	<b>2,900,000</b>			
<b>Other Officers</b>	100,000	2.52	5/26/2015	100%
	50,000	5.25	5/26/2016	100%
	100,000	4.61	3/13/16	85%
	100,000	5.00	8/21/2016	85%
	275,000	3.07	5/1/2018	33%
	250,000	2.65	4/1/2018	31%
Total Other Officers	<b>600,000</b>			
<b>Other Employees</b>	10,000	2.52	5/25/2015	100%
	25,000	2.88	6/21/2015	100%
	10,000	5.12	2/17/2016	100%
	25,000	6.89	5/1/2016	81%
	30,000	5.20	11/7/2016	100%
	30,000	3.87	11/1/2017	38%
Total Other Employees	<b>130,000</b>			
<b>Total Surrendered Options</b>	<b>4,005,000</b>			

#### Proposal

Because of the limitations on the Company's ability to issue new awards under the Plan where such an issuance may be deemed a repricing, the Compensation Committee and the Board have recommended that the stockholders approve the issuance of new equity awards under the Plan to the Optionees covering an aggregate of 2 million shares of Common Stock out of 4.6 million shares available for grant under the Plan. This represents approximately 50% of the number of shares surrendered by Optionees to facilitate the Offering. No new share reserves will be established under the Plan pursuant to this proposal. Rather, the existing Plan share reserves will be used to grant new awards to the Officers. If the reverse split

described in Proposal One is approved and implemented, the number of shares that may be granted under this proposal would also be subject to adjustment at the reverse split ratio.

The Board expects that the non-employee directors, Edward Frykman, Charles McKenney and LeRoy Rahn, would each receive a one-time option grant for 75,000 shares of Common Stock following the approval of this proposal. These options would have an exercise price equal to the fair market value of the Common Stock as of the date of grant and would be subject to vesting as follows: 11% of the option award would be vested at the time of grant and the remaining 89% would vest ratably on a quarterly basis over the next two years.

Although the Compensation Committee has not determined the specific terms of the awards that would be granted to the Optionees, the Compensation Committee expects that any new options granted pursuant to this proposal would have an exercise price equal to the fair market value of the Company's Common Stock on the date of grant and that any new equity awards would be subject to the same vesting requirements set forth above for the non-employee directors. On the Record Date, the closing price of our common stock was \$0.43 per share. Assuming that the new options to be granted under this proposal would have an exercise price equal to the closing price of our common stock on the Record Date, the newly issued options would have a significantly lower price than the exercise prices of the options that were forfeited, which ranged from \$6.89 to \$2.52. This would provide the option recipient with greater value, which would be at least partially offset by the decrease in the total number of shares underlying the options and the additional vesting requirements that will be imposed on the new options. Because our directors and officers will be in a position to benefit from the awards that may be granted pursuant to this proposal, a conflict of interest may exist. Please see "*Interests of Certain Persons in Matters to be Acted Upon.*"

#### Grants of Plan-Based Awards

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

Name	Grant Date	Option Awards: Number of Securities Underlying Options Granted (#)(1)	Exercise Price of Option Awards (\$/Sh)
R. Bruce Stewart	6/11/2008	50,000	(1)(2)
Christopher Anzalone	6/11/2008	25,000	(1)(2)
Edward W. Frykman	3/13/2008	20,000	(3)
Charles McKenney	3/13/2008	20,000	(3)
LeRoy T. Rahn	3/13/2008	20,000	(3)
Paul C. McDonnel	6/11/2008	50,000	(2)
John C. Miller	6/11/2008	80,000	(1)(2)
Jane Davidson	6/11/2008	40,000	(2)
Pepito Santiago	11/1/2007	10,000	(3)
Jane Culbertson	11/1/2007	10,000	(3)
Therese Mumolo	11/1/07	10,000	(3)

(1) 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.

(2) Effective July 17, 2009, vesting of the award was accelerated such that option is fully vested on one year date of grant.

(3) Effective July 17, 2009, the award was voluntarily surrendered to facilitate a financing transaction.

## **Summary of Plan**

Below is a summary of some of the material terms of the Plan for your reference. A complete copy of the Plan has been filed as Annex A to the Company's Proxy Statement on Schedule 14A for the 2005 Annual Meeting of Stockholders and a copy is available from the Company upon request.

### ***Eligibility***

The 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 August 1, 2009, approximately 30 employees, directors and consultants were eligible to receive awards under the Plan. If this proposal is approved, up to 12 directors, officers and employees will receive equity awards hereunder.

### ***Purpose***

The purpose of the 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 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 Plan is administered by the Compensation Committee of the Board of Directors of the Company (the "**Committee**").

### ***Limitations on Awards***

Under the Plan, no more than 6,000,000 shares may be issued in the aggregate. As of August 1, 2009, approximately 4.6 million shares were available for issuance under the Plan, subject to the overall limits on authorized and unissued shares of common stock under the Company's Charter. The maximum number of shares of Common Stock which may be awarded under the Plan, and the number of shares and price per share applicable to any outstanding award, are subject to adjustment in the event of stock dividends, stock splits, combinations of shares, recapitalizations, mergers, consolidations or other reorganizations of the Company.

### ***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 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 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 be subject to the optionee or the Company achieving management objectives. No incentive options shall be exercisable more than 5 years after the date of grant.

### ***Stock Appreciation Rights***

The 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 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.

### ***Restricted Stock Awards***

The Plan permits the grant of restricted stock awards which are restricted Common Stock bonuses that vest in accordance with terms established by the Committee. The 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 Committee may accelerate the time at which any restrictions lapse, and/or remove any restrictions.

### ***Performance Unit/Share Awards***

The 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 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 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 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.

### ***Term***

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

### ***Nontransferability of Awards***

Awards granted under the 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 Plan is discretionary, it is impossible to determine the amount and terms of such future grants under the Plan.

The Committee may not lower the exercise price of outstanding option rights without the approval of the Company's stockholders.

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

Common Stock underlies all of the options and rights to be awarded under the Plan. The market value of the Common Stock at the close of trading on September 3, 2009 was \$0.49 per share.

### ***Federal Tax Considerations***

The following is a summary of certain federal income tax considerations relating to awards under the 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 considerations relating to 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 Plan and does not describe any state, local or foreign tax considerations.

### ***Tax Considerations for 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 be subject 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 transferred 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 an 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.

***Each Plan participant should consult his, her or its own tax advisers concerning the particular U.S. federal tax considerations relating to his/her participation in the Plan, as well as the consequences arising under the laws of any other taxing jurisdiction, including any state, local or foreign income tax consequences.***

***To ensure compliance with Treasury Department Circular 230, each Plan participant is hereby notified that: (a) any discussion of U.S. federal tax issues in this proxy statement is not intended or written to be used, and cannot be used, by such person for the purpose of avoiding penalties that may be imposed on such holder under the Code; (b) any such discussion has been included by the Company in furtherance of this proposal on the terms described herein; and (c) each such person should seek advice based on its particular circumstances from an independent tax advisor.***

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**Approval Required**

The affirmative vote of the holders of a majority of the Company's Common Stock present and entitled to vote on the proposal is required to approve this proposal. Accordingly, "broker non-votes" will not be counted as having been voted on the proposal and therefore will have no effect on the outcome.

**Recommendation of the Board**

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

**PROPOSAL FOUR****ADJOURNMENT OF THE SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF THE FOREGOING PROPOSALS**

At the Special Meeting and any adjournment or postponement thereof, our stockholders may be asked to consider and vote upon a proposal to adjourn the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the foregoing proposals. The Board may wish to adjourn the Special Meeting if necessary to provide additional time to solicit proxies and doing so may save the Company the time and additional expense needed with preparing and filing a new proxy statement.

**Approval Required**

The affirmative vote of the holders of a majority of the Company's Common Stock present and entitled to vote on the proposal is required to approve this proposal. Accordingly, "broker non-votes" will not be counted as having been voted on the proposal and therefore will have no effect on the outcome.

**Recommendation of the Board**

**THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THIS PROPOSAL.**

## INTERESTS OF CERTAIN PERSONS IN MATTERS TO BE ACTED UPON

If Proposal Three is approved, our directors, officers and employees will be eligible to receive equity awards in varying amounts not to exceed 2,000,000 shares in the aggregate for all eligible individuals taken together; the directors, officers, and employees thus have a direct interest in the approval of Proposal Three.

### VOTING SECURITIES OF PRINCIPAL STOCKHOLDERS AND MANAGEMENT

The following table sets forth the beneficial ownership of the Company's Common Stock as of August 18, 2009, by (i) by each of the named executive officers named in the table under "Executive Compensation and Related Information," (ii) by each director, (iii) all current directors and executive officers as a group, and (iv) the sole holder of greater than 5% of our total shares outstanding known to us. The persons and entities named in the table have sole voting and investment power with respect to all shares beneficially owned, subject to community property laws, where applicable and the address of each stockholder is c/o Arrowhead Research Corporation, 201 South Lake Avenue, Suite 703, Pasadena, California 91101.

<u>Name</u>	<u>Number of Shares</u>	<u>Percentage Ownership</u>
<b>5% Owners</b>		
M. Robert Ching	4,053,585 (1)	8.0%
<b>Directors and Named Executive Officers</b>		
R. Bruce Stewart	811,500 (2)	1.6%
Christopher Anzalone	353,000 (3)	*
Joseph T. Kingsley, Interim Chief Financial Officer	214,588 (4)	*
John C. Miller	546,858 (5)	1.0%
Thomas Haag	30,000 (6)	*
Edward W. Frykman	100,000 (7)	*
Charles P. McKenney	50,000 (8)	*
LeRoy T. Rahn	100,000 (9)	*
Arthur Swift	—	—
All current executive officers and directors as a group (9 persons)	2,205,946 (10)	4.3%

\* indicates less than 1%

- (1) Includes 441,245 shares issuable upon the exercise of common stock purchase warrants that are exercisable within 60 days of August 18, 2009.
- (2) Includes 300,000 shares issuable upon the exercise of stock options that are exercisable within 60 days of August 18, 2009.
- (3) Includes 25,000 shares issuable upon the exercise of stock options and 164,000 shares issuable upon the exercise of common stock purchase warrants that are exercisable within 60 days of August 18, 2009.
- (4) Includes 214,588 shares issuable upon the exercise of stock options that are exercisable within 60 days of August 18, 2009.
- (5) Includes 525,000 shares issuable upon the exercise of stock options and 10,929 shares issuable upon the exercise of common stock purchase warrants that are exercisable within 60 days of August 18, 2009.
- (6) Includes 30,000 shares issuable upon the exercise of stock options that are exercisable within 60 days of August 18, 2009.
- (7) Includes 100,000 shares issuable upon the exercise of stock options that are exercisable within 60 days of August 18, 2009.
- (8) Includes 50,000 shares issuable upon the exercise of stock options that are exercisable within 60 days of August 18, 2009.
- (9) Includes 100,000 shares issuable upon the exercise of stock options that are exercisable within 60 days of August 18, 2009.
- (10) See footnotes (2) - (9). Includes 1,344,588 shares issuable upon exercise of stock options and 174,929 shares issuable upon the exercise of stock options that are exercisable within 60 days of August 18, 2009.

**EXECUTIVE COMPENSATION AND RELATED INFORMATION**

**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.

**Summary Compensation Table**

The following table summarizes compensation paid, awarded or earned for services rendered during fiscal 2008 by our Chief Executive Officer, our two most highly paid executive officers serving the Company as of September 30, 2008, and a former officer of one of our major subsidiaries who was among our most highly compensated in fiscal 2008. We refer to these persons collectively as our "Named Executive Officers."

On May 12, 2009, the Company and R. Bruce Stewart entered into an amendment to his severance agreement whereby the amount payable to Mr. Stewart upon his retirement was reduced from 36 months' salary to 1 month's salary. Effective July 17, 2009, Mr. Stewart, Dr. Anzalone and Mr. Miller voluntarily terminated options to purchase 575,000, 2,000,000 and 50,000 shares of Common Stock, respectively.

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus (\$)</u>	<u>Stock Awards (\$)</u>	<u>Option Awards (\$)(1)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
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	1,404,570
	2007	N/A(4)	N/A(4)	N/A(4)	N/A(4)	N/A(3)(4)	N/A(4)
John Miller	2008	229,121	40,000	—	68,461	—	337,582
Vice President Business Development	2007	205,643	—	—	94,933	—	300,576
Arthur L. Swift, Former President and Chief Executive Officer of Unidym Inc., a majority-owned subsidiary of Arrowhead	2008	333,167	—	—	179,948	—	513,115
	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. On May 12, 2009, the Company and R. Bruce Stewart, the Company's Executive Chairman entered into an amendment to his severance agreement whereby the amount payable to Mr. Stewart upon his retirement was reduced from 36 months' salary to 1 month's salary.

- (3) Consists of \$100,000 in relocation expenses and \$1,090 for life insurance.
- (4) Dr. Anzalone was not employed by the Company in fiscal 2007.

### 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. The figures in this table have not been updated to reflect the subsequent forfeiture of the options as described above in Proposal Three.

Name	Number of Securities Underlying Unexercised Options (#) Exercisable		Option Awards (1)		
			Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date
R. Bruce Stewart	250,000		—	1.00	2/14/2014
	250,000	(2)	—	2.52	5/24/2015
	250,000	(2)	—	5.24	5/26/2016
	75,000	(2)	—	4.34	3/29/2017
	3,125	(3)	46,875	2.13	6/11/2018
Christopher Anzalone	375,001	(2)	1,624,999	3.92	12/1/2017
	1,562	(3)	23,438	2.13	6/11/2018
John Miller	8,333	(3)	71,667	2.13	6/11/2018
	50,000	(2)	—	5.24	5/26/2016
	400,000		—	1.00	5/1/2014
Arthur L. Swift	69,047		130,953	6.62	6/18/2017

- (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) Award voluntarily terminated to facilitate financing transaction effective 7/17/2009.
- (3) Effective July 17, 2009, vesting of award accelerated such that the option is fully vested on the one year anniversary of the date of grant.

### 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 40,000 shares of Common Stock upon re-election each year, starting at the 2010 Annual Meeting of Stockholders. 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.

Name	Fees Earned or Paid in Cash (\$)		Option Awards (\$)	Total (\$)
	(1)	(2)	(3)	
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) 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. Effective July 17, 2009, each director voluntarily surrendered options to purchase 125,000 shares of Common Stock to facilitate a financing transaction.

The Board expects that the non-employee directors would each receive a one-time option grant for 75,000 shares of Common Stock following the approval of Proposal Three. These options would have an exercise price equal to the fair market value of the Common Stock as of the date of grant and would be subject to vesting as follows: 11% of the option award would be vested at the time of grant and the remaining 89% would vest ratably on a quarterly basis over the next two years. 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.

#### **WHERE YOU CAN FIND MORE INFORMATION**

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 Special 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.

Annex A

**CERTIFICATE OF AMENDMENT  
OF  
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION  
OF  
ARROWHEAD RESEARCH CORPORATION**

Arrowhead Research Corporation (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify:

FIRST: That the Board of Directors of the Corporation has duly adopted resolutions (i) authorizing the Corporation to execute and file with the Secretary of State of the State of Delaware this Certificate of Amendment of Amended and Restated Certificate of Incorporation (this "Certificate of Amendment") to combine each [ ]<sup>1</sup> outstanding shares of the Corporation's Common Stock, par value \$0.001 per share, into one (1) share of Common Stock, par value \$0.001 per share; and (ii) declaring this Certificate of Amendment to be advisable and recommended for approval by the stockholders of the Corporation.

SECOND: That this Certificate of Amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware by the Board of Directors and stockholders of the Corporation.

THIRD: That the capital of the Corporation shall not be reduced under or by reason of this Certificate of Amendment.

FOURTH: That upon the effectiveness of this Certificate of Amendment, Article Fourth of the Amended and Restated Certificate of Incorporation is hereby amended such that, as amended, Article Fourth shall read in its entirety as follows:

FOURTH: The total number of shares that the corporation shall have authority to issue is \_\_\_\_\_, <sup>2</sup> of which \_\_\_\_\_<sup>3</sup> shares shall be common stock, \$0.001 par value ("Common Stock"), and 5,000,000 shares shall be preferred stock, \$0.001 par value ("Preferred Stock"). The Board of Directors is authorized, subject to the limitations prescribed by law and the provisions of this Article FOURTH, to provide for the issuance of the Preferred Stock in series, and by filing a certificate pursuant to the applicable laws of the State of Delaware, to establish from time to time the number of shares to be included in each such series, and to fix the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions thereof. The authority of the Board of Directors with respect to each such series shall include, but not be limited to, the determination of the following: (a) The number of shares constituting that series and the distinctive designation of that series; (b) The dividend rate, if any, on the shares of that series, whether dividends shall be cumulative, and, if so, from which date or dates, and the relative priority, if any, of payment of dividends on shares of that series; (c) Whether that series shall have voting rights, in addition to the voting rights expressly required by law, and, if so, the terms of such voting rights; (d) Whether that series shall have conversion privileges, and, if so, the terms and conditions of such conversion, including provisions for adjustment of the conversion rate in such events as the Board of Directors shall determine; (e) Whether or not the shares of that series shall be redeemable, and, if so, the terms and conditions of such redemption, including the date or dates upon or after which they shall be redeemable, and the amount per share payable in the case of redemption, which amount may vary under different conditions and at different redemption dates; (f) Whether that series shall have a sinking fund for the redemption or purchase of shares of that series, and, if so, the terms and amount of such sinking fund; (g) The rights of the shares of that series in the event of a voluntary or involuntary liquidation, dissolution or winding up of the corporation, and the relative rights of priority, if any, of payment of shares of that series; and (h) Any other relative rights, preferences and limitations of that series.

Upon the filing of this Certificate of Amendment, each \_\_\_\_\_<sup>1</sup> shares of Common Stock issued and outstanding at such time shall be combined into one (1) share of Common Stock, par value \$0.001 per share (the "Reverse Stock

<sup>1</sup> Final split ratio, within a range of 1-for-2 to 1-for-15 to be determined by Board of Directors pursuant to authority granted by stockholders, as described in the accompanying proxy statement.

<sup>2</sup> Total authorized capital to be either 75 Million Shares or 150 Million Shares, depending on implementation of proposed increase in authorized Common Stock, as described in the accompanying proxy statement.

<sup>3</sup> Total authorized common stock to be either 70 Million Shares or 145 Million Shares, depending on implementation of proposed increase in authorized Common Stock, as described in the accompanying proxy statement.

Split"). No fractional share shall be issued upon the Reverse Stock Split. All shares of Common Stock (including fractions thereof) issuable upon the Reverse Stock Split to a given holder shall be aggregated for purposes of determining whether the Reverse Stock Split would result in the issuance of any fractional share. If, after the aforementioned aggregation, the Reverse Stock Split would result in the issuance of a fraction of a share of Common Stock, the Corporation shall, in lieu of issuing any such fractional share, pay the holder otherwise entitled to such fraction a sum in cash equal to the fraction multiplied by the fair market value per share of the Common Stock as determined in a reasonable manner by the Board of Directors. Upon surrender by a holder of a certificate or certificates for Common Stock (including, for this purpose, a holder of shares of Common Stock issuable upon conversion of Preferred Stock), duly endorsed, at the office of the Corporation, the Corporation shall, as soon as practicable thereafter, issue and deliver to such holder, or to the nominee or assignee of such holder, a new certificate or certificates for the number of shares of Common Stock that such holder shall be entitled to following the Reverse Stock Split.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment of Amended and Restated Certificate of Incorporation to be executed by \_\_\_\_\_, its \_\_\_\_\_, this day of \_\_\_\_\_, 200 .

**ARROWHEAD RESEARCH CORPORATION**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**DETACH HERE**

**PROXY**

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

**ARROWHEAD RESEARCH CORPORATION**

**SPECIAL MEETING OF STOCKHOLDERS**

**TUESDAY, OCTOBER 6, 2009**

The undersigned stockholder of ARROWHEAD RESEARCH CORPORATION, a Delaware corporation, hereby acknowledges receipt of the Notice of Special Meeting of Stockholders and Proxy Statement, each dated September 4, 2009, and hereby appoints Christopher Anzalone and Jane Davidson, or any of them, proxies and attorneys-in-fact with full power to each of substitution, on behalf and in the name of the undersigned, to represent the undersigned at the Special Meeting of Stockholders of Arrowhead Research Corporation to be held on Tuesday, October 6, 2009 at 10:00 a.m., local time, at the offices of the Company, located at 201 South Lake Avenue, Suite 703, Pasadena, California 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. PROPOSAL TO GRANT THE BOARD OF DIRECTORS THE AUTHORITY TO EFFECT A REVERSE SPLIT OF OUR COMMON STOCK AT A SPECIFIC RATIO WITHIN A RANGE FROM 1-FOR-2 TO 1-FOR-15.

FOR

AGAINST

ABSTAIN

2. PROPOSAL TO AMEND OUR CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK BY 75 MILLION SHARES.

FOR

AGAINST

ABSTAIN

3. PROPOSAL TO AUTHORIZE THE ISSUANCE OF EQUITY GRANTS TO OFFICERS, DIRECTORS AND EMPLOYEES OF THE COMPANY.

FOR

AGAINST

ABSTAIN

4. PROPOSAL TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF THE FOREGOING PROPOSALS.

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 stockholder. If no direction is made, this consent will be IN FAVOR of the foregoing proposals and as the proxy holders deem advisable on such other matters as may properly come before the meeting. This Proxy is revocable with respect to any Proposal at any time before the date on which at least a majority of the outstanding shares of Common Stock have consented to that Proposal.