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

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**FORM 8-K**

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**CURRENT REPORT**

**Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported): June 12, 2008**

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**Arrowhead Research Corporation**

(Exact name of registrant as specified in its charter)

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**0-21898**

(Commission File Number)

**Delaware**

(State or other jurisdiction of incorporation)

**46-0408024**

(IRS Employer Identification No.)

**201 South Lake Avenue, Suite 703, Pasadena, California 91101**

(Address of principal executive offices) (Zip Code)

**Registrant's telephone number, including area code (626) 304-3400**

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Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4 (c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 1.01 Entry into a Definitive Material Agreement.**

**Item 2.01 Completion of Acquisition or Disposition of Assets.**

On June 12, 2008 and June 16, 2008, Unidym, Inc. ("**Unidym**"), a majority owned subsidiary of Arrowhead Research Corporation (the "**Company**"), entered into subscription agreements (the "**Subscription Agreements**") with Entegris, Inc. and Arrowhead Research Corporation, respectively, pursuant to which Unidym issued and sold an aggregate of 2,222,222 shares of its Series C Preferred Stock (the "**Shares**") for aggregate cash proceeds of \$4,000,000 in a private financing transaction (the "**Private Placement**"). Entegris' investment was made in connection with its expanded customer relationship with Unidym for carbon nanotubes. The Company purchased 1,111,111 shares of Series C Preferred Stock for a purchase price of \$2,000,000. The \$4,000,000 of additional capital represents follow-on investments in Unidym's Series C financing, previously announced in the Company's Form 8-K filed on November 2, 2007. The Series C Preferred Stock carries certain rights and preferences including a liquidation preference, preferential dividends, if declared by Unidym's Board of Directors, protective provisions, and the right to appoint one director to the Unidym Board of Directors. After giving effect to the Shares issued in the Private Placement, Arrowhead retains majority ownership of Unidym.

In connection with the Private Placement, Entegris became a party to Unidym's Investor Rights Agreement, Right of First Refusal Agreement and Voting Agreement.

The foregoing is intended only as a summary of the terms of the Subscription Agreements and related transactions. Please refer to the Form of Subscription Agreement and Investors Rights Agreement, filed as Exhibit 10.1 and 10.2 hereto, for the complete terms of each agreement. Also attached is the Company's press release, released on June 17, 2008, announcing the investment in Unidym.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
10.1	Form of Subscription Agreement
10.2	Second Amended and Restated Investors Rights Agreement
99.1	Press Release issued by the Company on June 17, 2008.

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: June 18, 2008

ARROWHEAD RESEARCH CORPORATION

By: /s/ Paul C. McDonnel  
Paul C. McDonnel, Chief Financial Officer

**UNIDYM, INC.**  
**SUBSCRIPTION AGREEMENT**  
**SERIES C PREFERRED STOCK**

## SUBSCRIPTION AGREEMENT

THIS SUBSCRIPTION AGREEMENT (this "**Agreement**") is made as of the last date indicated on the signature pages hereto between Unidym, Inc., a Delaware corporation (the "**Company**"), and the undersigned investor party hereto ("**Investor**").

### RECITALS

WHEREAS, the Company wishes to sell up to an aggregate of 8,333,333 shares of the Company's Series C Preferred Stock ("**Shares**") to one or more investors at a purchase price of \$1.80 per Share, and the Investor wishes to purchase Shares from the Company.

NOW, THEREFORE, in consideration of the mutual covenants, agreements and conditions, and upon acknowledgement of each of the parties of the receipt of valuable consideration, the parties herein agree as follows:

#### 1. Purchase and Sale of Shares.

1.1 The Closing. At the Closing (as defined below), the Company shall issue and sell to Investor such number of Shares as is set forth immediately below Investor's name on the signature pages hereto. Investor shall pay an amount equal to \$1.80 times the number of Shares to be purchased by the Investor (the "**Purchase Price**") in cash (by check or wire transfer) or by cancellation of indebtedness in United States Dollars to the Company to be held in escrow until the Closing, for release to the Company thereafter. Promptly after the Closing, the Company shall deliver to Investor a duly executed certificate representing the Shares which Investor is purchasing hereunder. The purchase and sale transaction contemplated hereby will close on the first business day immediately following the satisfaction of the Closing conditions set forth herein, which is targeted to be no later than 5:00 p.m., Pacific Time on June 6, 2008, as such date and time may be modified by the Company in its sole discretion (such day, the "**Closing**").

#### 1.2 Additional Closing(s).

(a) Conditions of Additional Closing(s). At any time and from time to time following the Closing, the Company may, at one or more additional closings (each an "**Additional Closing**"), without obtaining the signature, consent or permission of Investor, offer and sell to other investors (the "**New Investors**"), at a price of \$1.80 per Share, up to that number of Shares that is equal to 8,333,333 Shares less the number of Shares previously issued and sold by the Company. New Investors may include persons or entities who are already owners of shares of the Company's Series C Preferred Stock or other capital stock.

(b) Amendments. The Company and the New Investors purchasing Shares at each Additional Closing will execute a Subscription Agreement in substantially the same form hereof, and the New Investors will, to the extent not already a party thereto, execute counterpart signature pages to: (i) the Amended and Restated Investors' Rights Agreement in the form attached to this Agreement as Exhibit A (the "**Investors' Rights Agreement**"), (ii) the Amended and Restated Right of First Refusal and Co-Sale Agreement in the form attached to this Agreement as Exhibit B (the "**ROFR Agreement**"), and (iii) the Amended and Restated Voting Agreement in the form attached to this Agreement as Exhibit C (the "**Voting Agreement**") (the Investors' Rights Agreement, ROFR Agreement and Voting Agreement, collectively, the "**Related Agreements**"). Such New Investors will, upon delivery to the Company of such signature pages, become parties to, and bound by, the Related Agreements, each to the same extent as if they had been an Investor at the time of issuance of the first share of Series C Preferred Stock.

(c) Status of New Investors. Upon the completion of each Additional Closing as provided in this Section 1.2, each New Investor will be deemed to be an "Investor" for all purposes of the Related Agreements.

2. Representations and Warranties of the Company. The Company hereby represents and warrants to Investor, that the statements in the following paragraphs of this Section 2 are all true and complete as of May 31, 2008:

2.1 Organization, Good Standing and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would reasonably be expected to have a material adverse effect on (a) the present or future business, assets, or operations, of the Company, taken as a whole or (b) the Company's ability to perform this Agreement or the Related Agreements (as defined below) (a "**Material Adverse Effect**").

2.2 Capitalization and Voting Rights.

(a) Authorized Stock. As of June 3, 2008, there are authorized for issuance 40,000,000 shares of common stock, par value \$0.0001 (the "**Common Stock**") and 19,173,252 shares of preferred stock, par value \$0.0001 (the "**Preferred Stock**"), of which 5,000,000 shares are designated as Series A Convertible Preferred Stock ("**Series A Preferred Stock**"), 5,673,252 shares are designated as Series B Senior Convertible Preferred Stock ("**Series B Preferred Stock**"), and 8,500,000 shares are designated as Series C Senior Convertible Preferred Stock ("**Series C Preferred Stock**"). As of June 3, 2008, the outstanding stock of the Company consists of the following:

(i) Common Stock. Three Million Seven Hundred Fifty Five Thousand (3,755,000) shares of issued and outstanding Common Stock.

(ii) Five Million (5,000,000) shares of issued and outstanding Series A Preferred Stock, which shares of Series A Preferred Stock are convertible into 1.680096462 shares of Common Stock upon (x) an involuntary or voluntary liquidation, dissolution and winding up of the Company, (y) a Deemed Liquidation Event (as such term is defined in the Restated Certificate) or (z) a Qualified IPO (as such term is defined in the Restated Certificate).

(iii) Five Million Six Hundred Seventy Three Thousand Two Hundred and Fifty Two (5,673,252) shares of issued and outstanding Series B Preferred Stock, which shares of Series B Preferred Stock are convertible into 1.000042304 shares of Common Stock.

(iv) Five Million Seven Hundred Sixty Four Thousand Seven Hundred and Seventy Eight (5,764,778) shares of issued and outstanding Series C Preferred Stock.

Upon the Closing, the rights, preferences and privileges of each series of Preferred Stock will be as stated in the Restated Certificate and as provided by law.

(b) Valid Issuance. The outstanding shares of Common Stock and Preferred Stock are all duly and validly authorized and issued, fully paid and nonassessable.

(c) Rights to Acquire. Except for (i) the conversion privileges of the Preferred Stock, (ii) the rights of first refusal provided in Section 4 of the Investors' Rights Agreement, (iii)

the Five Million (5,000,000) shares of Common Stock reserved for issuance to employees, consultants and/or directors pursuant to the Company's 2006 Stock Option/Stock Issuance Plan (the "**Option Plan**"), of which options to purchase an aggregate of Three Million Eight Hundred Thirty-One Thousand Nine Hundred Forty Five (3,831,945) shares of Common Stock are currently outstanding, (iv) outstanding warrants to purchase Sixty Four Thousand (64,000) shares of Common Stock and (vi) outstanding restricted stock units for the issuance of One Million One Hundred and Four Thousand and Ten (1,104,010) shares of Common Stock, there are not outstanding any options, warrants, rights (including conversion or preemptive rights) or agreements for the purchase or acquisition from the Company of any shares of its capital stock.

(d) **Voting of Shares.** Other than the Voting Agreement, the Company is not a party or subject to any agreement or understanding and, to the Company's knowledge, there is no agreement or understanding between any persons and/or entities which affects or relates to the voting or giving of written consents with respect to any security or by a director of the Company.

(e) **Market Stand-Off.** To the Company's best knowledge, all outstanding shares of preferred stock of the Company and all capital stock of the Company issuable upon the exercise of outstanding employee incentive stock options are subject to a one hundred eighty (180) day "market stand-off" restriction upon an initial public offering by the Company resulting in at least \$20 Million in gross proceeds pursuant to a registration statement filed with the Securities and Exchange Commission ("**SEC**") pursuant to the Securities Act of 1933, as amended (the "**Act**").

2.3 **Subsidiaries.** Except for the minority ownership position in Nanotech Catheter Solutions LLC pursuant to the license agreement with Nanotech Catheter Solutions and the 50% ownership position in Ensysce Biosciences pursuant to the spin off of Ensysce Biosciences and license agreement with Ensysce Biosciences, the Company does not presently own or control, directly or indirectly, any interest in any other corporation, association, or other business entity. The Company is not a participant in any joint venture, partnership, or similar arrangement.

2.4 **Authorization.** All corporate action on the part of the Company, its officers, directors and stockholders necessary for the authorization, execution and delivery of this Agreement, the Related Agreements, the performance of all obligations of the Company hereunder and thereunder, and the authorization, sale and issuance of the Shares being sold hereunder, and the Common Stock issuable upon conversion of the Shares, has been taken or will be taken prior to the Closing. As of the Closing, this Agreement and the Related Agreements constitute valid and legally binding obligations of the Company, enforceable in accordance with their respective terms, except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (iii) to the extent the indemnification provisions contained in the Related Agreements may be limited by applicable federal or state securities laws.

2.5 **Valid Issuance of Preferred and Common Stock.** The Shares that are being purchased by Investor hereunder, when issued, sold and delivered in accordance with the terms of this Agreement for the consideration expressed herein, will be duly and validly issued, fully paid and nonassessable and will be free of restrictions on transfer, other than restrictions on transfer (i) under this Agreement, the Investor's Rights Agreement and the ROFR Agreement, (ii) under applicable state and federal securities laws and (iii) otherwise imposed as a result of actions taken by Investor. The Common Stock issuable upon conversion of the Shares purchased under this Agreement has been duly and validly reserved for issuance and, upon issuance in accordance with the terms of the Company's Restated Certificate of Incorporation in the form attached hereto as Exhibit D (the "**Restated Certificate**"), will be duly and validly issued, fully paid and nonassessable and will be free of restrictions on transfer, other than restrictions on transfer (i) under this Agreement, the Investor's Rights Agreement and the ROFR Agreement, (ii) under applicable state and federal securities laws and (iii) otherwise imposed as a result of actions taken by Investor.

2.6 Governmental Consents. No consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority on the part of the Company is required in connection with the consummation of the transactions contemplated by this Agreement and the Related Agreements, except for such consents, approvals, orders, authorizations, registrations, qualifications, designations, declarations or filings which are not required to be obtained prior to the Closing, and such filings as are required pursuant to applicable federal and state securities laws and blue sky laws, which filings will be effected within the required statutory period.

2.7 Offering. Subject in part to the truth and accuracy of Investor's representations set forth in Section 3 of this Agreement, the offer, sale and issuance of the Shares as contemplated by this Agreement are exempt from the registration requirements of the Act, and the qualification or registration requirements of applicable state blue sky laws, as such registration requirements and laws currently exist.

2.8 Litigation. There is no action, suit, proceeding or investigation pending or, to the Company's knowledge, currently threatened in writing against the Company that questions the validity of this Agreement or the Related Agreements, or the right of the Company to enter into such agreements or to consummate the transactions contemplated hereby and thereby, or that would reasonably be expected to result in a Material Adverse Effect. The Company is not a party or subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality. There is no action, suit, proceeding or investigation by the Company currently pending or that the Company currently intends to initiate.

2.9 Proprietary Information Agreements. Each current employee of the Company has executed a Proprietary Information and Inventions Agreement in substantially the form provided to Investor upon request by Investor. The Company is not aware that any such employee is in violation thereof.

2.10 Compliance with Other Instruments. The Company is not in violation of any provision of its Restated Certificate or Bylaws nor, to its knowledge, of any instrument, judgment, order, writ, decree or contract, statute, rule or regulation to which the Company is subject and a violation of which would reasonably be expected to have a Material Adverse Effect. The execution, delivery and performance of this Agreement and the Related Agreements, and the consummation of the transactions contemplated hereby and thereby will not result in any such violation, or be in conflict with or constitute, with or without the passage of time and giving of notice, either a default under any such provision or an event that results in the creation of any lien, charge or encumbrance upon any assets of the Company or the suspension, revocation, impairment, forfeiture or nonrenewal of any material permit, license, authorization or approval applicable to the Company, its business or operations or any of its assets or properties.

2.11 Agreements; Action. Except for agreements explicitly contemplated hereby, there are no agreements or understandings between the Company and any of its officers, directors, affiliates or any affiliate thereof (except for transactions with Unidym Acquisition, LLC, of which the Company is a wholly owned subsidiary, and except for quarterly allocations for services performed by Arrowhead) and except as set forth on Schedule 2.11,

(a) there are no agreements, understandings, instruments, contracts, judgments, orders, writs or decrees to which the Company is a party or by which it is bound that may involve (i) obligations (contingent or otherwise) of, or payments to the Company, in excess of \$10,000, other than obligations of, or payments to, the Company arising from purchase or sale agreements entered into in the ordinary course of business, or (ii) provisions materially restricting the development, manufacture or distribution of the Company's products or services, and

(b) The Company has not (i) declared or paid any dividends or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or any other liabilities individually in excess of \$10,000 or, in the case of indebtedness and/or liabilities individually less than \$10,000, in excess of \$25,000 in the aggregate, (iii) made any loans or advances to any person, other than ordinary advances for travel expenses, or (iv) sold, exchanged or otherwise disposed of any of its assets or rights.

For the purposes of subsections (a) and (b) above, all indebtedness, liabilities, agreements, understandings, instruments and contracts involving the same person or entity (including persons or entities the Company has reason to believe are affiliated therewith) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsections.

2.12 Related-Party Transactions. No employee, officer or director of the Company or member of his or her immediate family is indebted to the Company, nor is the Company indebted (or committed to make loans or extend or guarantee credit) to any of them. To the best of the Company's knowledge, other than in Arrowhead Research Corporation, a Delaware corporation ("**Arrowhead**") or in any of Arrowhead's subsidiaries or Unidym Acquisition, LLC, none of such persons has any direct or indirect ownership interest in any firm or corporation with which the Company is affiliated or with which the Company has a business relationship, or any firm or corporation that competes with the Company, except that employees, officers or directors of the Company and members of their immediate families may own stock in publicly traded companies that may compete with the Company. No member of the immediate family of any officer or director of the Company is directly or indirectly interested in any material contract with the Company.

2.13 No Undisclosed Liabilities. Except as set forth in the consolidated financial statements of Arrowhead at March 31, 2008 and for the three months then ended, the Company does not have any liabilities (whether accrued, absolute, unliquidated, contingent or otherwise, whether or not known to the Company, whether due or to become due and regardless of when asserted) arising out of transactions entered into at or prior to the Closing, or any action or inaction at or prior to the Closing or any state of facts existing at or prior to the Closing other than (i) liabilities and obligations that have arisen after March 31, 2008 in the ordinary course of business (none of which is material and none of which is a liability resulting from breach of contract, breach of warranty, tort, infringement, claim or lawsuit), (ii) obligations under contracts and commitments incurred in the ordinary course of business that would not be required to be reflected in financial statements prepared in accordance with generally accepted accounting principles, or (iii) \$500,000 transferred by Arrowhead to the Company to purchase Shares under the same terms and conditions as the New Investors. The Company is not a guarantor or indemnitor of any indebtedness of any other person, firm or corporation.

2.14 Permits. The Company has all franchises, permits, licenses and any similar authority necessary for the conduct of its business as now being conducted by it, except to the extent the lack of which would not reasonably be expected to have a Material Adversely Effect. The Company is not in default under any of such franchises, permits, licenses or other similar authority which would be reasonably expected to have a Material Adverse Effect.

2.15 Environmental and Safety Laws.

(a) Except as set forth in Section 2.15(b), to its knowledge, the Company is not in violation of any applicable statute, law or regulation relating to the environment or occupational health and safety, and, to its knowledge, no material expenditures are or will be required in order to comply with any such existing statute, law or regulation.

(b) The US Environmental Protection Agency (the “**EPA**”) has issued recent guidance regarding the classification of carbon nanotubes under the Toxic Substances Control Act. The EPA has stated that it now considers carbon nanotubes to be “new chemicals” rather than materials previously listed on the TSCA Inventory, such as synthetic graphite or other carbon compounds. The Company is in the process of reviewing its compliance with this guidance and has filed paperwork with the EPA. Accordingly, the Company withholds any representation or warranty regarding the matters disclosed in this Section 2.15(b), including its compliance with the new EPA guidance.

2.16 Disclosure. The Company has fully provided Investor with all the information that Investor has requested in writing for deciding whether to purchase the Shares. Neither this Agreement (including all the exhibits and schedules hereto) nor any other statements or certificates made or delivered in connection herewith contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements herein or therein not misleading in light of the circumstances under which they were made.

2.17 Registration Rights. Except as provided in the Investors’ Rights Agreement, the Company has not granted or agreed to grant any registration rights, including piggyback rights, to any person or entity.

2.18 Title to Property and Assets. The property and assets used by the Company in its business are owned by the Company free and clear of all mortgages, liens, loans and encumbrances, except for (i) statutory liens for the payment of current taxes that are not yet delinquent and (ii) for liens, encumbrances and security interests that arise in the ordinary course of business and minor defects in title, none of which, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect. With respect to the property and assets it leases, the Company is in compliance with such leases and, to its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances, subject to clauses (i)-(ii) of the foregoing sentence, except to the extent the failure to be in compliance or hold a valid leasehold interest would not reasonably be expected to have a Material Adverse Effect.

2.19 Labor Agreements and Actions. The Company is not bound by or subject to any contract, commitment or arrangement with any labor union, and no labor union has requested or, to the Company’s knowledge, has sought to represent any of the employees, representatives or agents of the Company. There is no strike or other labor dispute involving the Company pending, or to the Company’s knowledge, threatened in writing, that would reasonably be expected to have a Material Adverse Effect, nor is the Company aware of any labor organization activity involving its employees. The Company is not aware that any officer or key employee, or that any group of key employees, intends to terminate their employment with the Company, nor does the Company have a present intention to terminate the employment of any of the foregoing. The employment of each officer and employee of the Company is terminable at the will of the Company. The Company is not a party to or bound by any currently effective employment contract, deferred compensation agreement, bonus plan, incentive plan, profit sharing plan, retirement agreement or other employee compensation agreement, except that pursuant to his employment arrangement, the CEO of the Company is entitled to certain severance payments and acceleration of options if he is terminated or constructively terminated without cause. To its knowledge, the Company has complied in all material respects with all applicable state and federal equal employment opportunity and other laws related to employment.

2.20 Brokers Fees. The Company expects to pay third-party finders or advisors finder’s fees (in cash and/or equity) for Shares placed by such third party. For the sake of clarity, no finder’s fees will be paid for Shares not placed by a third-party finder or advisor.

2.21 Intellectual Property. To its knowledge, the Company has rights to all intellectual property it needs to operate its business as currently conducted, other than intellectual property that it reasonably believes is invalid or it can obtain rights to through a license or cross-licensing arrangement.

2.22 Tax Returns and Payments. There are no federal, state, county, local or foreign taxes dues and payable by the Company which have not been timely paid. There are no accrued and unpaid federal, state, county, local or foreign taxes of the Company which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. The Company has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

2.23 Insurance. The Company has in full force and effect fire and casualty insurance policies with extended coverage, sufficient in amount (subject to reasonable deductions) to allow it to replace any of its properties that might be damaged or destroyed.

2.24 ERISA. The Company has made all required contributions and has no liability to any such employee benefit plan, other than liability for health plan continuation coverage described in Part 6 of Title I(B) of Employee Retirement Income Security Act of 1974, as amended, and has complied in all material respects with all applicable laws for any such employee benefit plan.

3. Representations and Warranties of Investor. Investor hereby represents, warrants and covenants to the Company that:

3.1 Authorization. Investor has full power and authority to enter into this Agreement and the Related Agreements to which it is a party, and each such agreement constitutes its valid and legally binding obligation, enforceable in accordance with its terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (iii) to the extent the indemnification provisions contained in the Related Agreements may be limited by applicable federal or state securities laws.

3.2 Purchase Entirely for Own Account. This Agreement is made with Investor in reliance upon Investor's representation to the Company, which by Investor's execution of this Agreement, Investor hereby confirms that the Shares will be acquired for investment for Investor's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that Investor has no present intention of selling, granting any participation in or otherwise distributing the same. By executing this Agreement, Investor further represents that Investor does not have any contract, undertaking, agreement or arrangement with any person to sell, transfer or grant participations to such person or to any third person, with respect to any of the Shares.

3.3 Disclosure of Information. Investor believes it has received all the information it considers necessary or appropriate for deciding whether to purchase the Shares. Investor further represents that it has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of the Shares and the business, properties, prospects and financial condition of the Company. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of Investor to rely thereon.

3.4 Investment Experience. Investor is an investor in securities of companies in the development stage and acknowledges that he/she/it is able to bear the economic risk of its investment, and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment in the Shares. If other than an individual, Investor also represents it has not been organized for the purpose of acquiring the Shares.

3.5 Accredited Investor. Investor is an “accredited investor” within the meaning of SEC Rule 501 of Regulation D and has reviewed Schedule 3.5 before making this representation to the Company. All of the information in the Investor Questionnaire delivered by Investor to the Company in connection with Investor’s purchase of the Shares remains complete, true and correct as of the Closing or the Additional Closing, as applicable.

3.6 Restricted Securities. Investor understands that the Shares it is purchasing are characterized as “restricted securities” under the federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering, and that under such laws and applicable regulations, such Shares may be resold without registration under the Act only in certain limited circumstances. In the absence of an effective registration statement covering the Shares or an available exemption from registration under the Act, the Shares (and any Common Stock issued on conversion of the Shares) must be held indefinitely.

3.7 No Brokers. Investor has not taken any action which would give rise to any claim by any person for brokerage commissions, finder’s fees or similar payments relating to this Agreement or the transactions contemplated hereby.

3.8 Legends. It is understood that the certificates evidencing the Shares may bear one or all of the following legends:

(a) “These securities have not been registered under the Securities Act of 1933, as amended. They may not be sold, offered for sale, pledged or hypothecated in the absence of a registration statement in effect with respect to the securities under such Act or an opinion of counsel satisfactory to the Company that such registration is not required or unless sold pursuant to Rule 144 of such Act.”

(b) Legends required to indicate that the Shares are subject to the terms of the Investors Rights Agreement and ROFR Agreement.

(c) Any legend required by applicable laws.

4. Conditions to Investor’s Obligations at Closing. The following conditions must be satisfied by the Company, unless waived by Investor, in Investor’s sole and absolute discretion.

4.1 Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the date of the Closing.

4.2 Performance. The Company shall have performed and complied with all agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by it on or before the Closing.

4.3 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Shares pursuant to this Agreement shall be duly obtained and effective, other than such authorizations, approvals or permits or other filings which may be timely made after such issuance and sale of the Shares.

4.4 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing and all documents incident thereto shall be reasonably satisfactory in form and substance to Investor, and Investor shall have received all such counterpart original and certified or other copies of such documents as may be reasonably requested.

4.5 General. The holders of Common Stock and/or Preferred Stock shall have amended any other agreement or arrangement, or given any further consent required to allow the Company to execute and perform this Agreement and the Related Agreements.

5. Conditions to the Company's Obligations at Closing. The following conditions must be satisfied by Investor, unless waived in writing by the Company, in the Company's sole and absolute discretion.

5.1 Representations and Warranties. The representations and warranties of the Investor contained in Section 3 shall be true on and as of the Closing or the Additional Closing (as applicable) with the same effect as though such representations and warranties had been made on and as of the date of such closing.

5.2 Payment of the Purchase Price. Investor shall have delivered to the Company the purchase price for the Shares.

5.3 Securities Exemptions. The offer and sale of the Shares to Investor pursuant to this Agreement shall be exempt from the registration requirements of the Act, the qualification requirements of the California General Corporation Law and the registration and/or qualification requirements of all other applicable state securities laws.

5.4 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing or the Additional Closing (as applicable) and all documents incident thereto shall be reasonably satisfactory in form and substance to the Company, and the Company shall have received all such counterpart original and certified or other copies of such documents as may be reasonably requested.

5.5 Investors' Rights Agreement. The Investor shall have executed and delivered a counterpart signature page to the Investors' Rights Agreement.

5.6 ROFR Agreement. The Investor shall have executed and delivered a counterpart signature page to the ROFR Agreement.

5.7 Voting Agreement. The Investor shall have executed and delivered a counterpart signature page to the Voting Agreement.

5.8 General. The holders of Common Stock and/or Preferred Stock shall have amended any other agreement or arrangement, or given any further consent required to allow the Company to execute and perform this Agreement and the Related Agreements.

#### 6. Miscellaneous.

6.1 Survival. The warranties, representations and covenants of the Company and Investor contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing or the Additional Closing (as applicable) and shall in no way be affected by any investigation of the subject matter thereof made by or on behalf of Investor or the Company.

6.2 Successors and Assigns. Except as otherwise provided herein, the terms and conditions of this Agreement shall inure to the benefit of, and be binding upon, the respective successors and assigns of the parties (including transferees of any Shares). Nothing in this Agreement, express or implied, is intended to confer upon any party, other than the parties hereto or their respective successors and assigns, any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

6.3 Governing Law. This Agreement shall be governed by and construed under the laws of the State of California as applied to agreements among California residents entered into and to be performed entirely within California, except with respect to conflict of laws.

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed telex or facsimile if sent during normal business hours of the recipient, if not, then on the next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the address as set forth on the signature page hereof or at such other address as such party may designate by ten (10) days' advance written notice to the other parties hereto.

6.6 Responsibility for Brokers Fees. Investor indemnifies and holds harmless the Company from any liability for any commission or compensation in the nature of a finders' fee (and the costs and expenses of defending against such liability or asserted liability) for which Investor or any of its officers, partners, employees or representatives is responsible. The Company indemnifies and holds harmless Investor from any liability for any commission or compensation in the nature of a finders' fee (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible.

6.7 Aggregation of Stock. All issued and outstanding shares of the Series C Preferred Stock and Common Stock issued upon conversion thereof held or acquired by affiliated entities or persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

6.8 Amendments and Waivers. Any term of this Agreement may be amended, and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and Investor.

6.9 Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

6.10 Entire Agreement. This Agreement and the documents referred to herein constitute the entire agreement among the parties, and this Agreement supersedes all prior written and oral agreements, and all contemporaneous oral agreements, relating to the subject matter hereof.

6.11 Counterparts; Facsimile/PDF Signatures. This Agreement may be executed in two or more counterparts, and by facsimile signatures or portable document format (.pdf or similar format), each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.



Dated: \_\_\_\_\_

**COMPANY:**

UNIDYM, INC.  
a Delaware corporation

By: Arthur L. Swift  
CEO & President

Address: 1430 Obrien Drive  
Menlo Park, CA 94025

**I HEREBY REPRESENT THAT I HAVE READ AND UNDERSTOOD THE SUBSCRIPTION AGREEMENT.**

Dated: \_\_\_\_\_

**Subscription:** I hereby subscribe for the following number of Shares at the Purchase Price indicated:

Total Number of Shares: \_\_\_\_\_

Total Purchase Price (\$1.80 Per Share): \_\_\_\_\_

\_\_\_\_\_

Please print the exact name(s) in which the Shares will be issued

Print Name of Signer: \_\_\_\_\_

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

—

Title of Signer (if purchaser is an entity): \_\_\_\_\_

Social Security # or Tax Id#: \_\_\_\_\_

Address: \_\_\_\_\_

—

\_\_\_\_\_

\_\_\_\_\_

City, State & Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

\_\_\_\_\_

Facsimile: \_\_\_\_\_

—

Email: \_\_\_\_\_

\_\_\_\_\_

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**Exhibit A**

Amended and Restated Investors' Rights Agreement

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**Exhibit B**

Amended and Restated Right of First Refusal and Co-Sale Agreement

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**Exhibit C**

Amended and Restated Voting Agreement

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**Exhibit D**

Restated Certificate of Incorporation

**Schedule 3.5**  
Qualification as an Accredited Investors

**To qualify as an Accredited Investor one of the following must be true. Contact the Company if none is applicable):**

A natural person whose net worth (or joint net worth with my spouse) is in excess of \$1,000,000 as of the date hereof.

A natural person who had an individual income in excess of \$200,000 in each of the two most recent years or joint income with that person's spouse in excess of \$300,000 in each of those years and has a reasonable expectation of reaching the same income level in the current year.

A trust with total assets in excess of \$5,000,000, not formed for the specific purpose of investing in the Interest, whose purchases are directed by a "sophisticated person" as described in Rule 506(b)(2)(ii) of the Act.

A "bank," "savings and loan association," or "insurance company" as defined in the Act.

An "employee benefit plan" as defined in the Employee Retirement Income Security Act of 1974 which has total assets in excess of \$5,000,000.

A Plan whose investment decisions, including the decision to subscribe for the Interest, are made solely by (i) a "plan fiduciary" as defined in the Employee Retirement Income Security Act of 1974, which includes a bank, a savings and loan association, an insurance company or a registered investment adviser, or (ii) an "accredited investor" as defined under Rule 501(a) of the Act.

A broker/dealer registered pursuant to Section 15 of the Securities Exchange Act of 1934.

A "private business development company" as defined in the Investment Advisers Act of 1940.

An investment company registered under, or a "business development company" as defined in, the Investment Company Act of 1940.

A Small Business Investment Company licensed by the U.S. Small Business Administration under the Small Business Investment Act of 1958.

A plan established and maintained by a state, its political subdivisions, or any agency or instrumentality of a state or its political subdivisions, for the benefit of its employees and having total assets in excess of \$5,000,000.

Any organization described in Section 501(c)(3) of the Internal Revenue Code, corporation, Massachusetts or similar business Trust, or Company, not formed for the specific purpose of investing in the Interest and having total assets in excess of \$5,000,000.

Any entity in which all of the equity owners are "accredited investors."

**AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT**

This Amended and Restated Investors' Rights Agreement (the "**Agreement**") is made as of the October 29, 2007, by and between **Unidym, Inc.**, a Delaware corporation (the "**Company**"), each of the investors listed on Schedule A hereto (each of which is referred to in this Agreement as an "**Investor**") and each of the stockholders listed on Schedule B hereto (each of which is referred to in this Agreement as a "**Stockholder**").

**RECITALS**

**WHEREAS**, the Company, certain of the Investors, and certain of the Stockholders entered into an Amended and Restated Investors' Rights Agreement dated as of April 20, 2007 (the "**Prior Agreement**");

**WHEREAS**, certain new investors (the "**Series C Investors**") have agreed to purchase shares of the Company's Series C Preferred Stock (the "**Series C Stock**") pursuant to a certain Series C Preferred Stock Subscription Agreement between the Company and each such Series C Investor dated of even date herewith or hereafter (each a "**Series C Agreement**"), and the Series C Agreement provides that, as a condition to the Series C Investor's purchase of Series C Stock thereunder, the Company will enter into this Agreement and the Series C Investor will be granted the rights set forth herein;

**WHEREAS**, the Company and the parties to the Prior Agreement desire to enter into this Agreement in order to amend, restate and replace their rights and obligations under the Prior Agreement with the rights and obligations set forth in this Agreement. Section 6.8 of the Prior Agreement provides that the Prior Agreement may be amended by the written consent of (i) the Company, (ii) the holders of at least a majority of the Registrable Securities then outstanding and held by the Stockholders and (iii) the holders of at least a majority of the Registrable Securities then outstanding and held by the Investors;

**WHEREAS**, the Investors, Stockholders and the Company hereby agree that this Agreement shall govern, among other things, the rights of the Investors to cause the Company to register shares of the Company's Common Stock issuable to the Investors, to participate in future equity offerings by the Company and certain other matters as set forth in this Agreement; and

**WHEREAS**, the Company has provided its written consent to amend the Prior Agreement, the undersigned Stockholders to this Agreement hold a majority of the Registrable Securities outstanding and the undersigned Investors to this Agreement hold a majority of the Registrable Securities outstanding.

**NOW, THEREFORE**, in consideration of the foregoing and the promises and covenants contained herein, the sufficiency of which is hereby acknowledged, the parties agree as follows:

1. **Definitions.** For purposes of this Agreement:

1.1. The term "**Affiliate**" means with respect to any individual, corporation, partnership, association, trust, or any other entity (in each case, a "**Person**"), any Person which, directly or indirectly, controls, is controlled by or is under common control with such Person, including, without limitation, any general partner, officer or director of such Person and any venture capital fund now or hereafter existing which is controlled by or under common control with one or more general partners or shares the same management company with such Person.

1.2. "**Arrowhead**" means to Arrowhead Research Corporation, a Delaware corporation.

- 1.3. The term “**Board**” means the Board of Directors of the Company.
- 1.4. The term “**Certificate of Incorporation**” means the Certificate of Incorporation of the Company, as amended to date.
- 1.5. The term “**Common Stock**” means shares of the Company’s common stock, par value \$0.0001 per share.
- 1.6. The term “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.
- 1.7. The term “**Form S-3**” means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC which permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC.
- 1.8. The term “**GAAP**” means generally accepted accounting principles.
- 1.9. The term “**Holder**” means any Person owning or having the right to acquire Registrable Securities or any assignee thereof in accordance with Section 6.2 hereof.
- 1.10. The term “**Initiating Holders**” means, collectively, any Holders who properly initiate a registration request under this Agreement.
- 1.11. The term “**Investor**” means the Investors listed on Schedule A hereto.
- 1.12. The term “**Investor-Designated Director**” means any Arrowhead Director (as defined in the Voting Agreement).
- 1.13. The term “**IPO**” means the Company’s first underwritten public offering of its Common Stock pursuant to an effective registration statement under the Securities Act, resulting in at least Twenty Million (\$20,000,000) of gross proceeds to the Company.
- 1.14. The term “**New Securities**” means equity or debt securities of the Company, whether now authorized or not, or rights, options, or warrants to purchase said equity securities, or securities of any type whatsoever that are, or may become, convertible into or exchangeable into or exercisable for said equity securities.
- 1.15. The term “**Qualified Public Offering**” means the Company’s firm commitment underwritten public offering of its Common Stock pursuant to an effective registration statement under the Securities Act, resulting in a per share price to the public of at least Three Dollars (\$3.00) (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock).
- 1.16. The term “**register**,” “**registered**,” and “**registration**” refer to a registration effected by preparing and filing a registration statement or similar document in compliance with the Securities Act, and the declaration or ordering of effectiveness of such registration statement or document.
- 1.17. The term “**Registrable Securities**” means (i) the Common Stock issuable or issued upon conversion of the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock (ii) shares of Common Stock issued to George Gruner (provided, however, that such shares of Common

Stock shall not be deemed Registrable Securities and the holders of such Common Stock shall not be deemed Holders for the purposes of the first paragraph of Sections 2.1 or 2.11 or Sections 2.12 and 6.8), (iii) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of the shares referenced in clauses (i) and (ii) above, and (iv) any Common Stock of the Company held by Arrowhead, excluding in all cases, however, (a) any Registrable Securities sold by a Holder in a transaction in which such Holder's rights under Section 2 hereof are not assigned, (b) any shares for which registration rights have terminated pursuant to Section 2.15 of this Agreement, or (c) any Registrable Securities registered or sold to the public either pursuant to a registration statement or SEC Rule 144.

1.18. The term "**Registrable Securities then outstanding**" means the number of shares determined by adding the number of shares of Common Stock outstanding which are, and the number of shares of Common Stock issuable pursuant to then exercisable or convertible securities which are, Registrable Securities.

1.19. The term "**Sale of the Company**" means (A) a transaction or series of related transactions in which a Person, or a group of related Persons, acquires from stockholders of the Company shares representing fifty percent (50%) or more of the outstanding voting power of the Company, (B) a merger or consolidation in which (a) the Company is a constituent party or (b) a subsidiary of the Company is a constituent party and the Company issues shares of its capital stock pursuant to such merger or consolidation, *except* any such merger or consolidation involving the Company or a subsidiary in which the shares of capital stock of the Company outstanding immediately prior to such merger or consolidation continue to represent, or are converted or exchanged for shares of capital stock which represent, immediately following such merger or consolidation at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or (C) the sale, lease, exclusive license, transfer or other disposition, in a single transaction or series of related transactions, by the Company or any subsidiary of the Company of all or substantially all the assets of the Company and its subsidiaries taken as a whole except where such sale, lease, transfer or other disposition is to a wholly owned subsidiary of the Company.

1.20. The term "**SEC**" means the Securities and Exchange Commission.

1.21. The term "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.22. The term "**SEC Rule 144(k)**" means Rule 144(k) promulgated by the SEC under the Securities Act.

1.23. The term "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.24. The term "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.25. The term "**Series A Preferred Stock**" means shares of the Company's Series A Preferred Stock, par value \$0.0001 per share.

1.26. The term “**Series B Preferred Stock**” means shares of the Company’s Series B Preferred Stock, par value \$0.0001 per share.

1.27. The term “**Series C Preferred Stock**” means shares of the Company’s Series C Preferred Stock, par value \$0.0001 per share.

1.28. The term “**Violation**” means losses, claims, damages, or liabilities (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations: (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by any other party hereto, of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law.

1.29. The term “**Voting Agreement**” means the Amended and Restated Voting Agreement dated of even date herewith by and among the Company, the Investors and Stockholders, as such agreement may be amended from time to time.

2. Registration Rights. The Company covenants and agrees as follows: Request for Registration.

(a) If the Company shall receive at any time after the earlier of (i) 5 years after the date of this Agreement or (ii) 180 days after the effective date of the first registration statement for a public offering of securities of the Company (other than a registration statement relating either to the sale of securities to employees of the Company pursuant to a stock option, stock purchase or similar plan or a SEC Rule 145 transaction), a written request from the Holders who hold in excess of thirty percent (30%) of the Registrable Securities then outstanding that the Company file a registration statement under the Securities Act covering the registration of the Registrable Securities then outstanding with an anticipated aggregate offering price (net of underwriting discounts and commissions) of at least Ten Million Dollars (\$10,000,000), then the Company shall:

(i) within ten (10) days of the receipt thereof, give written notice of such request to all Holders;

(ii) as soon as practicable, and in any event within sixty (60) days of the receipt of such request, file a registration statement under the Securities Act covering all Registrable Securities which the Holders request to be registered, subject to the limitations of subsection 2.1(b), within twenty (20) days of the mailing of such notice by the Company in accordance with Section 6.5; and

(iii) use its best efforts to cause such registration statement to be declared effective by the SEC as soon as practicable.

(b) If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to subsection 2.1(a) and the Company shall include such information in the written notice referred to in subsection 2.1(a). The underwriter will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder’s Registrable Securities in such registration shall be conditioned upon such Holder’s

participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in subsection 2.3(e)) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting. Notwithstanding any other provision of this Section 2.1, if the underwriter advises the Initiating Holders in writing that marketing factors require a limitation of the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities which would otherwise be underwritten pursuant hereto, and the number of shares of Registrable Securities that may be included in the underwriting shall be allocated among all Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities of the Company owned by each Holder; provided, however, that the number of shares of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares.

(c) The Company shall not be obligated to effect, or to take any action to effect, any registration

(i) pursuant to this Section 2.1:

(i) In any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, unless the Company is already subject to service in such jurisdiction and except as may be required under the Securities Act;

(ii) After the Company has effected two (2) registrations pursuant to this Section 2.1 and such registrations have been declared or ordered effective;

(iii) If the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.11, below; or

(iv) If the Registrable Securities to be included in the registration statement could be sold without restriction under SEC Rule 144(k) within a ninety (90) day period and the Company is currently subject to the periodic reporting requirements of Sections 12(g) or 15(d) of the Exchange Act, or

(ii) pursuant to any other provision of this Agreement:

(i) In any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, unless the Company is already subject to service in such jurisdiction and except as may be required under the Securities Act; or

(ii) If the Registrable Securities to be included in the registration statement could be sold without restriction under SEC Rule 144(k) within a ninety (90) day period and the Company is currently subject to the periodic reporting requirements of Sections 12(g) or 15(d) of the Exchange Act.

(d) Notwithstanding the foregoing, if the Company shall furnish to Holders requesting a registration statement pursuant to this Section 2.1 a certificate signed by the Chief Executive Officer of the Company stating that in the good faith judgment of the Board it would be materially detrimental to the Company and its stockholders for such registration statement to be filed and it is therefore necessary to defer the filing of such registration statement, the Company shall have the right to defer taking action with respect to such filing for a period of not more than ninety (90) days after receipt of the request of the Initiating Holders; provided, however, that the Company may not utilize this right more than once in any twelve-month period.

A registration statement shall not be counted until such time as such registration statement has been declared effective by the SEC (unless the Initiating Holders withdraw their request for such registration (other than as a result of information concerning the business or financial condition of the Company which is made known to the Investors after the date on which such registration was requested) and elect not to pay the registration expenses therefor pursuant to Section 2.5). A registration statement shall not be counted if, as a result of an exercise of the underwriter's cut-back provisions, fewer than seventy-five percent (75%) of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.2. Company Registration. If the Company proposes to register (including for this purpose a registration effected by the Company for stockholders other than the Holders) any of its stock or other securities under the Securities Act in connection with the public offering of such securities solely for cash (other than a registration statement relating either to the sale of securities to employees of the Company pursuant to a stock option, stock purchase or similar plan or an SEC Rule 145 transaction, a registration on any form which does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities which are also being registered), the Company shall, at such time, promptly give each Holder written notice of such registration. Upon the written request of each Holder given within twenty (20) days after mailing of such notice by the Company in accordance with Section 6.6, the Company shall, subject to the provisions of Section 2.7, cause to be registered under the Securities Act all of the Registrable Securities that each such Holder has requested to be registered. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration. The expenses of such withdrawn registration shall be borne by the Company in accordance with Section 2.6, hereof.

2.3. Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible,

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its reasonable best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the Registration Statement has been completed; provided, however, that (i) such 120-day period shall be extended for a period of time equal to the period the Holder refrains from selling any securities included in such registration at the request of an underwriter of Common Stock (or other securities) of the Company; and (ii) in the case of any registration of Registrable Securities on Form S-3 which are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such 120-day period shall be extended, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement;

(c) furnish to the Holders such numbers of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them;

(d) use its reasonable best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders; provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement;

(f) cause all such Registrable Securities registered pursuant to this Agreement hereunder to be listed on a national securities exchange or trading system and each securities exchange and trading system on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant hereunder and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) use its reasonable best efforts to furnish, at the request of any Holder requesting registration of Registrable Securities pursuant to this Section 2, on the date on which such Registrable Securities are sold to the underwriter, (i) an opinion, dated such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and (ii) a “comfort” letter dated such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters, if any.

2.4. Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as shall be reasonably required to effect the registration of such Holder’s Registrable Securities.

2.5. Expenses of Demand Registration. All expenses, other than underwriting discounts and commissions, incurred in connection with registrations, filings or qualifications pursuant to Section 2.1, including (without limitation) all registration, filing and qualification fees, printers’ and accounting fees, fees and disbursements of counsel for the Company and the reasonable fees and disbursements of one counsel for the selling Holders, shall be borne by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1

if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all participating Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one demand registration pursuant to Section 2.

2.6. Expenses of Company Registration. The Company shall bear and pay all expenses incurred in connection with any registration, filing or qualification of Registrable Securities with respect to the registrations pursuant to Section 2.2 hereof for each Holder (which right may be assigned as provided in Section 6.2 hereof), including (without limitation) all registration, filing, and qualification fees, printers and accounting fees relating or apportionable thereto and the fees and disbursements of one counsel for the selling Holders selected by them, but excluding underwriting discounts and commissions relating to Registrable Securities.

2.7. Underwriting Requirements. In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2.2, the Company shall not be required to include any of the Holders' securities in such underwriting unless they accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters determine in their sole discretion will not jeopardize the success of the offering by the Company subject to the limitations set forth below. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the amount of securities to be sold other than by the Company that the underwriters determine in their reasonable discretion is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company determine in their sole discretion will not jeopardize the success of the offering. In no event shall any Registrable Securities be excluded from such offering unless all other stockholders' securities have been first excluded. In the event that the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be apportioned pro rata among the selling Holders based on the number of Registrable Securities held by all selling Holders or in such other proportions as shall mutually be agreed to by all such selling Holders. Notwithstanding the foregoing, in no event shall the amount of securities of the selling Holders included in the offering be reduced below thirty percent (30%) of the total amount of securities included in such offering, unless such offering is the Company's IPO in which case the selling Holders may be excluded beyond this amount if the underwriters make the determination described above and no other stockholder's securities are included in such offering. For purposes of the preceding parenthetical concerning apportionment, for any selling stockholder which is a Holder of Registrable Securities and which is an investment fund, partnership, limited liability company or corporation, the partners, members, retired partners, retired members, stockholders and Affiliates of such Holder, or the estates and family members of any such partners, retired partners, members and retired members and any trusts for the benefit of any of the foregoing persons shall be deemed to be a single "selling Holder", and any pro-rata reduction with respect to such "selling Holder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "selling Holder," as defined in this sentence.

2.8. Delay of Registration. No Holder shall have any right to obtain or seek an injunction or restraining order or otherwise delay any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.9. Indemnification. In the event any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, the partners, members, officers, directors and stockholders of each Holder, legal counsel and accountants for each Holder, any underwriter (as defined in the Securities Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Violation and the Company will pay to each such Holder, underwriter, controlling person or other aforementioned person, any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability, or action as such expenses are incurred; provided, however, that the indemnity agreement contained in this subsection 2.9(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, claim, damage, liability, or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by any such Holder, underwriter, controlling person or other aforementioned person.

(b) To the extent, permitted by law, each selling Holder will severally and not jointly indemnify and hold harmless the Company, each of its directors, each of its officers who has signed the registration statement, each person, if any, who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter, any other Holder selling securities in such registration statement and any controlling person of any such underwriter or other Holder, against any losses, claims, damages, or liabilities (joint or several) to which any of the foregoing persons may become subject, under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration; and each such Holder will pay any legal or other expenses reasonably incurred by any person intended to be indemnified pursuant to this subsection 2.9(b), in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this subsection 2.9(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; provided, further, that, in no event shall any indemnity under this subsection 2.9(b) exceed the net proceeds from the offering received by such Holder, except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.9 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.9, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties which may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.9, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.9.

(d) In order to provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any Holder exercising rights under this Agreement, or any controlling person of any such Holder, makes a claim for indemnification pursuant to this Section 2.9 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case notwithstanding the fact that this Section 2.9 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any such selling Holder or any such controlling person in circumstances for which indemnification is provided under this Section 2.9, then, and in each such case, the Company and such Holder will contribute to the aggregate losses, claims, damages or liabilities to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided however, that, in any such case, (I) no such Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (II) no person or entity guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any person or entity who was not guilty of such fraudulent misrepresentation; provided further, that in no event shall a Holder's liability pursuant to this Section 2.9(d), when combined with the amounts paid or payable by such holder pursuant to Section 2.9(b), exceed the proceeds from the offering (net of any underwriting discounts or commissions) received by such Holder, except in the case of willful fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Section 2.9 shall survive the completion of any offering of Registrable Securities in a registration statement under this Section 2, and otherwise and shall survive the termination of this Agreement.

2.10. Reports Under Exchange Act. With a view to making available to the Holders the benefits of Sec Rule 144 promulgated under the Securities Act and any other rule or regulation of the SEC that may at any time permits a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the first registration statement filed by the Company for the offering of its securities to the general public so long as the Company is subject to the periodic reporting requirements under Sections 13 or 15(d) of the Exchange Act;

(b) file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act;

and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144, the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC which permits the selling of any such securities without registration or pursuant to such form.

2.11. **Form S-3 Registration.** In case the Company shall receive from Holders of Registrable Securities then outstanding a written request or requests that the Company effect a registration on Form S-3 and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders, the Company will:

(a) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders; and

(b) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Holder's or Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holder or Holders joining in such request as are specified in a written request given within 15 days after receipt of such written notice from the Company; provided, however, that the Company shall not be obligated to effect any such registration, qualification or compliance, pursuant to this Section 2.11: (1) if Form S-3 is not then available for such offering by the Holders; (2) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public (net of any underwriters' discounts or commissions) of less than One Million Dollars (\$1,000,000); (3) if the Company shall furnish to the Holders a certificate signed by the President of the Company stating that in the good faith judgment of the Board, it would be materially detrimental to the Company and its stockholders for such Form S-3 Registration to be effected at such time, in which event the Company shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than ninety (90) days after receipt of the request of the Holder or Holders under this Section 2.11; provided, however, that the Company shall not utilize this right more than once in any twelve month period, and, provided further that the Company shall not register any securities for the account of itself or any other stockholder during such ninety day period (other than a registration relating solely to the sale of securities of participants in a Company stock plan, a registration relating to a corporate reorganization or transaction under SEC Rule 145, a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities, or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered); (4) if the Company has, within the twelve (12) month period preceding the date of such request, already effected two (2) registrations on Form S-3 for the Holders pursuant to this Section 2.11; or (5) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance; or (6) during the period ending one hundred eighty (180) days after the effective date of a registration statement subject to Section 2.2 hereof.

(c) Subject to the foregoing, the Company shall file a registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the request or requests of the Holders. All expenses incurred in connection with a registration requested pursuant to Section 2.11, including (without limitation) all registration, filing, qualification,

printer's and accounting fees and the reasonable fees and disbursements of counsel for the selling Holder or Holders and counsel for the Company, but excluding any underwriters' discounts or commissions associated with Registrable Securities, shall be borne by the Company. Registrations effected pursuant to this Section 2.11 shall not be counted as demands for registration or registrations effected pursuant to Sections 2.1.

(d) If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as part of their request made pursuant to this Section 2.11 and the Company shall include such information in the written notice referred to in Section 2.11(a). The provisions of Section 2.1(b) shall be applicable to such request (with the substitution of Section 2.11, for references to Section 2.1).

2.12. Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of a majority of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company which would allow such holder or prospective holder (a) to include such securities in any registration unless under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the amount of the Registrable Securities of the Holders that are included or (b) to demand registration of any securities held by such holder or prospective holder.

2.13. "Market Stand-Off" Agreement. Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the Company's IPO and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days which period may be extended upon the request of the managing underwriter for an additional period of up to fifteen (15) days if the Company issues or proposes to issue an earnings or other public release within fifteen (15) days of the expiration of the 180-day lockup period) (i) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock held immediately prior to the effectiveness of the Registration Statement for such offering, or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise. The foregoing provisions of this Section 2.13 shall apply only to the Company's IPO, shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, and shall only be applicable to the Holders if all officers, directors and greater than one percent (1%) stockholders of the Company enter into similar agreements. The underwriters in connection with the Company's IPO are intended third-party beneficiaries of this Section 2.13 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in the Company's IPO that are consistent with this Section 2.13 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply to all Holders subject to such agreements pro rata based on the number of shares subject to such agreements, except that, notwithstanding the foregoing, the Company and the underwriters may, in their sole discretion, waive or terminate these restrictions with respect to up to 100,000 shares of the Company's Common Stock.

In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Registrable Securities of each Holder (and the shares or securities of every other person subject to the foregoing restriction) until the end of such period.

2.14. Termination of Registration Rights No Holder shall be entitled to exercise any right provided for in this Section 2, after five (5) years following the consummation of a Qualified Public Offering.

(b) In addition, the right of any Holder to exercise any right provided for in this Section 2, including the right to request registration or inclusion in a registration, shall terminate when all shares of Registrable Securities held by such Holder can be sold without restriction under SEC Rule 144(k).

### 3. Inspection Rights and Confidentiality.

3.1. Inspection. The Company shall permit an Investor or Stockholder, at such Investor's or Stockholder's expense, to visit and inspect the Company's properties, to examine its books of account and records and to discuss the Company's affairs, finances and accounts with its officers, all at such reasonable times as may be reasonably requested by the Investor or Stockholder; provided, however, that the Company shall not be obligated pursuant to this Section 3.1, to provide access to any information which it reasonably considers to be a trade secret or similar confidential information or would adversely affect the attorney-client privilege between the Company and its counsel. The covenant set forth in this Section 3.1 shall terminate and be of no further force or effect (i) immediately prior to the consummation of an IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Sections 12(g) or 15(d) of the Exchange Act; or (iii) upon a Sale of the Company, whichever event shall first occur.

3.2. Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge or use for any purpose, other than to monitor its investment in the Company, any confidential information obtained from the Company pursuant to the terms of this Agreement, unless such confidential information (i) is known or becomes known to the public in general (other than as a result of a breach of this Section 3.2 by such Investor), (ii) is or has been independently developed or conceived by the Investor without use of the Company's confidential information or (iii) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor may disclose confidential information (a) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company, (b) to any prospective investor of any Registrable Securities from such Investor as long as such prospective investor agrees to be bound by the provisions of this Section 3.2 or executes a similar confidentiality agreement, (c) to any Affiliate, partner, member, stockholder, prospective investor or acquirer or wholly owned subsidiary of such Investor or such other person with whom Investor is considering entering into a strategic relationship as long as such person agrees to be bound by the provisions of this Section 3.2 or executes a similar confidentiality agreement or (d) as may otherwise be required by law (including without limitation disclosure of financial and other information required to be made in regulatory filings by Arrowhead), provided that the Investor takes reasonable steps to minimize the extent of any such required disclosure. The Company acknowledges that the Investors may be in the business of venture capital investing and therefore review the business plans and related proprietary information of many enterprises, including enterprises which may have products or services which compete directly or indirectly with those of the Company. Nothing in this Agreement shall preclude or in any way restrict the Investors from investing or participating in any particular enterprise whether or not such enterprise has products or services which compete with those of the Company.

4. **Right of First Offer; First Refusal Right on Future Rounds; Directed Shares Right of First Offer.** Subject to the terms and conditions specified in this Section 4.1, and applicable securities laws, in the event the Company proposes to offer or sell any New Securities, the Company shall first make an offering of such New Securities to each Investor and Stockholder (for purposes of this Section 4.1 only, each a “**Major Investor**,” and collectively, “**Major Investors**”) in accordance with the following provisions of this Section 4.1. A Major Investor shall be entitled to apportion the right of first offer hereby granted it among itself and its partners, members and Affiliates in such proportions as it deems appropriate.

(a) The Company shall deliver a notice, in accordance with the provisions of Section 6.6 hereof (the “**Offer Notice**”), to each of the Major Investors stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(b) By written notification received by the Company, within twenty (20) calendar days after mailing of the Offer Notice, each of the Major Investors may elect to purchase or obtain, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the number of shares of Common Stock issued and held (and any other securities convertible into, or otherwise exercisable or exchangeable for, shares of Common Stock) by such Major Investor bears to the total number of shares of Common Stock of the Company then outstanding (assuming full conversion and exercise of all convertible or exercisable securities). The Company shall promptly, in writing, inform each Major Investor that elects to purchase all the shares available to it (each, a “**Fully-Exercising Investor**”) of any other Major Investor’s failure to do likewise. During the ten (10) day period commencing after receipt of such information, each Fully-Exercising Investor shall be entitled to obtain that portion of the New Securities for which Major Investors were entitled to subscribe but which were not subscribed for by the Major Investors which is equal to the proportion that the number of shares of Common Stock issued and held by such Fully-Exercising Investor bears to the total number of shares of Common Stock issued and held by all Fully-Exercising Investors who wish to purchase such unsubscribed shares.

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or obtained as provided in Section 4.1(b) hereof, the Company may, during the ninety (90) day period following the expiration of the period provided in Section 4.1(b) hereof, offer the remaining unsubscribed portion of such New Securities (collectively, the “**Refused Securities**”) to any person or persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Major Investors in accordance with this Section 4.1.

(d) The right of first offer in this Section 4.1 shall not be applicable to: (i) shares of Common Stock issued or deemed issued to employees or directors of, or consultants to, the Company or any of its subsidiaries pursuant to a plan, agreement, or arrangement approved by the Board; (ii) shares of Series C Preferred Stock issued in a transaction or series of transactions in a bona fide private financing transaction of the Company; (iii) shares of Common Stock issued in an IPO; (iii) the issuance of securities pursuant to the conversion or exercise of convertible or exercisable securities outstanding on the date hereof; (iv) securities issued in connection with any stock split or stock dividend of the Company; (v) the issuance of securities in connection with a bona fide business acquisition of or by the Company, whether by merger, consolidation, sale of assets, sale or exchange of stock or otherwise unanimously approved by the Board; (vi) the issuance of stock, warrants or other securities or rights to persons or entities with which the Company has business relationships provided such issuances are for other than primarily capital raising purposes and provided that at the time of any such issuance, the aggregate of such issuance

and similar issuances in the preceding twelve month period do not exceed one percent (1%) of the then outstanding Common Stock of the Company (assuming full conversion and exercise of all convertible and exercisable securities); or (vii) the issuance of up to an aggregate of 250,000 shares of Common Stock, or the grant of options or warrants therefor, in connection with any present or future borrowing, line of credit, leasing or similar financing arrangement approved by the Board, including at least one Investor-Designated Director and by a majority of the members of the Board who are not employees of the Company or any subsidiary.

(e) In lieu of complying with the provisions of this Section 4.1, the Company may elect to give notice to the Major Investors within thirty (30) days after the issuance of New Securities. Such notice shall describe the type, price and terms of the New Securities: Each Major Investor shall have twenty (20) days from the date of receipt of such notice to elect to purchase up to the number of New Securities that would, if purchased by such Major Investor, maintain such Major Investor's percentage ownership position, calculated as set forth in Section 4.1(b) prior to giving effect to the issuance of such New Securities. The closing of such sale shall occur within sixty (60) days of the date of notice to the Major Investors.

4.2. Directed IPO Shares. In the event of an IPO, the Company will use its reasonable best efforts to cause the managing underwriter(s) of such IPO to designate a number of shares equal to ten percent (10%) of the Company's shares of Common Stock to be offered in such IPO for sale under a "directed shares program" and shall instruct such underwriter(s) to allocate no less than fifty percent (50%) of such directed shares program to be sold to persons or entities designated by the Investor, pro rata on the basis of the number of shares held by each such holder. The shares designated by the underwriter(s) for sale under a directed shares program are referred to herein as "directed shares." The Investors acknowledge that, despite the Company's use of its reasonable best efforts, the underwriter(s) may determine in their sole discretion that it is not advisable to designate all such shares as directed shares in the IPO, in which case the number of designated shares may be reduced or no directed shares may be designated, as applicable. The Investors also acknowledge that notwithstanding the terms of this Agreement, the sale of any directed shares to any person or entity pursuant to this Agreement will only be made in compliance with Rule 2110 of the National Association of Securities Dealers, Inc. Conduct Rules, IM-21 10-1 and federal, state and local laws, rules and regulations.

4.3. Termination. The provisions of Section 4.1 shall terminate (i) immediately prior to the consummation of a Qualified Public Offering, (ii) when the Company first becomes subject to the periodic reporting requirements of Sections 12(g) or 15(d) of the Exchange Act; or (iii) upon a Sale of the Company, whichever event shall first occur. The provisions of Section 4.2 shall terminate upon a Sale of the Company.

5. Additional Covenants Insurance; Director Indemnification. The Company shall maintain its existing policy of Directors and Officers Errors and Omissions insurance. The Company shall provide indemnification to the former directors of Carbon Nanotechnologies, Inc., a Delaware corporation ("CNI") as and to the same extent that the Company provides indemnification to directors of the Company under the certificate of incorporation and bylaws of the Company as of April 20, 2007.

5.2. Employee Agreements. The Company will cause each person now or hereafter employed by it or any subsidiary (or engaged by the Company or any subsidiary as a consultant/independent contractor) with access to confidential information and/or trade secrets to enter into a non-disclosure and proprietary rights assignment agreement substantially in the form approved by the Board. In addition, the Company shall not amend, modify, terminate, waive or otherwise alter, in whole or in part, any of the above-referenced agreements or any restricted stock agreement between the Company and any employee without the consent of those members of the Board elected solely by the Investors pursuant to the Voting Agreement.

5.3. Vesting of Option, Stock Grants. Unless approved by the Board, including any Investor-Designated Director, all future employees and consultants of the Company, who shall purchase, or receive options to purchase, shares of the Company's capital stock following the date hereof shall be required to execute stock purchase or option agreements providing for (i) vesting of shares over a four (4) year period, with twenty-five percent (25%) of the shares subject to such option vesting one (1) year after the applicable vesting commencement date and the balance of the shares subject to such option vesting in a series of thirty-six (36) successive equal monthly installments over the thirty-six (36)-month period measured from the first anniversary of the vesting commencement date, and (ii) a 180-day lockup period in connection with the Company's IPO. The Company shall retain a "right of first refusal" on employee transfers until the Company's IPO and the right to repurchase unvested shares at cost.

5.4. Meetings of the Board. Unless otherwise determined by the vote of a majority of the directors then in office, the Board shall meet at least quarterly in accordance with an agreed upon schedule.

5.5. Successor Indemnification. In the event that the Company or any of its successors or assigns (i) consolidates with or merges into any other entity and shall not be the continuing or surviving corporation or entity of such consolidation or merger or (ii) transfers or conveys all or substantially all of its properties and assets to any person or entity, then, and in each such case, to the extent necessary, proper provision shall be made so that the successors and assigns of the Company assume the obligations of the Company with respect to indemnification of members of the Board as in effect immediately prior to such transaction, whether in the Company's bylaws, Certificate of Incorporation, or elsewhere, as the case may be.

5.6. Termination of Covenants. The covenants set forth in this Section 5, except for Section 5.5, shall terminate and be of no further force or effect (i) immediately prior to the consummation of the sale of shares of Common Stock in the Company's IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Sections 12(g) or 15(d) of the Exchange Act; or (iii) upon a Sale of the Company, whichever event shall first occur.

#### 6. Miscellaneous.

6.1. Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

6.2. Transfers of Rights. Except as otherwise expressly provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, permitted assigns, heirs, executors and administrators of the parties hereto. The registration rights under Section 2 hereof, the information rights under Section 3 hereof, and the rights of first refusal under Section 4 hereof, may only be transferred to transferees or assignees acquiring the greater of (a) at least 300,000 shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock (on an as-converted basis and subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations) or (b) all shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock (or Common Stock issued upon conversion thereof), then held by the transferor; provided that each transferee or assignee of rights under this Agreement shall continue to be subject to the terms hereof, and, as a

condition to the Company's recognizing such transfer, each transferee or assignee shall agree in writing to be subject to each of the terms of this Agreement by executing and delivering an Adoption Agreement substantially in the form attached hereto as Exhibit A. Upon the execution and delivery of an Adoption Agreement by any transferee, such transferee shall be deemed to be a party hereto as if such transferee's signature appeared on the signature pages of this Agreement. By execution of this Agreement or of any Adoption Agreement, each of the parties appoints the Company as its attorney in fact for the purpose of executing any Adoption Agreement that may be required to be delivered under the terms of this Agreement. The Company shall not permit the transfer of the Registrable Securities subject to this Agreement on its books or issue a new certificate representing any such Registrable Securities unless and until such transferee shall have complied with the terms of this Section 6.2. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties or their respective executors, administrators, heirs, successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement. Notwithstanding the foregoing, the rights of first refusal contained in Section 4 may be transferred or assigned only to a Person that is an "accredited" investor as defined in Rule 501 of the Securities Act.

6.3. Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of the Company's Series C Preferred Stock after the date hereof pursuant to a Series C Agreement, the Company shall cause any purchaser of such shares of Series C Preferred Stock to execute a counterpart signature page hereto as an Investor, and such party shall thereby be bound by, and subject to, all the terms and provisions of this Agreement applicable to an Investor.

6.4. Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, without regard to its principles of conflicts of laws.

6.5. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed and delivered by facsimile signature and in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6.6. Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

6.7. Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page or Schedule A hereto, or to such email address, facsimile number or address as subsequently modified by written notice given in accordance with this Section 6.6.

6.8. Costs of Enforcement. If any party to this Agreement seeks to enforce its rights under this Agreement by legal proceedings, the non-prevailing party shall pay all costs and expenses incurred by the prevailing party, including, without limitation, all reasonable attorneys' fees.

6.9. Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance and

either retroactively or prospectively), only with the written consent of (i) the Company, (ii) the holders of at least a majority of the Registrable Securities then outstanding and held by the Stockholders and (iii) the holders of at least a majority of the Registrable Securities then outstanding and held by the Investors. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each holder of any Registrable Securities then outstanding, each future holder of all such Registrable Securities, and the Company. Notwithstanding the foregoing, this Agreement may not be amended or terminated and the observance of any term hereunder may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination or waiver applies to all Investors in the same fashion (it being agreed that a waiver of the provisions of Section 4 with respect to a particular transaction shall be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction). The Company shall give prompt written notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination or waiver. Any amendment, termination or waiver effected in accordance with this Section 6.8 shall be binding on all parties hereto, even if they do not execute such consent. No waivers of or exceptions to any term, condition or provision of this Agreement, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision. Any party may agree to waive or amend its own rights hereunder with respect to the Company or another party without the necessity of obtaining the consent or agreement of any other party.

6.10. Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

6.11. Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

6.12. Entire Agreement. This Agreement (including the Schedules hereto) constitutes the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other prior written or oral agreement, or contemporaneous written or oral agreement, relating to the subject matter hereof existing between the parties are expressly canceled.

6.13. Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such nonbreaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.14. Prior Agreement Superseded. Pursuant to Section 6.8 of the Prior Agreement, the undersigned parties who are parties to such Prior Agreement hereby amend and restate the Prior Agreement to read in its entirety as set forth in this Agreement, all with the intent and effect that the Prior Agreement shall hereby be terminated and entirely replaced and superseded by this Agreement.

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[SIGNATURE PAGE FOLLOWS]



IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first above written.

**INVESTORS:**

ARROWHEAD RESEARCH CORPORATION  
a Delaware corporation

By: /s/ Christopher Anzalone

Name: Christopher Anzalone

Title: Chief Executive Officer

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first above written.

**INVESTORS:**

Name: Entegris, Inc.

*(Print Name of Investor)*

By: John Goodman

*(Print name of signatory, if signing on behalf of entity)*

Title: Chief Technical Officer

*(Print title of signatory, if signing on behalf of an entity)*

Signature: /s/ John Goodman

**EXHIBIT A**

**ADOPTION AGREEMENT**

This Adoption Agreement (“**Adoption Agreement**”) is executed by the undersigned (the “**Transferee**”) pursuant to the terms of that certain Amended and Restated Investors’ Rights Agreement dated as of October [ ], 2007 (the “**Agreement**”), by and among the Company, Stockholder and certain of its Investors. Capitalized terms used but not defined in this Adoption Agreement shall have the respective meanings ascribed to such terms in the Agreement. By the execution of this Adoption Agreement, the Transferee agrees as follows:

1.1 Acknowledgement. Transferee acknowledges that Transferee is acquiring certain shares of the capital stock of the Company (the “**Stock**”), subject to the terms and conditions of the Agreement.

1.2 Agreement. Transferee (i) agrees that the Stock acquired by Transferee shall be bound by and subject to the terms of the Agreement, and (ii) hereby adopts the Agreement with the same force and effect as if Transferee were originally a party thereto.

1.3 Notice. Any notice required or permitted by the Agreement shall be given to Transferee at the address listed beside Transferee’s signature below.

EXECUTED AND DATED this \_\_ day of \_\_\_\_\_.

**TRANSFEE**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
Fax: \_\_\_\_\_

Accepted and Agreed:

**UNIDYM, INC.**

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



PRESS RELEASE

June 17, 2008

7:00 AM ET

Contact:

Virginia Dadey

Arrowhead Research

212-541-3707

vdadey@arrowres.com

Greg Rose

Unidym

650-462-1935

pr@unidym.com

### **ARROWHEAD SUBSIDIARY, UNIDYM, RECEIVES STRATEGIC INVESTMENT FROM ENTEGRIS**

Pasadena, CA — June 17 -2008 — Arrowhead Research Corporation (NASDAQ: ARWR) announced today that Unidym, Inc., its majority-owned subsidiary, has received a \$2.0 million strategic investment from Entegris, Inc. (NASDAQ: ENTG), a leading provider of products for purifying, protecting and transporting critical materials used in processing and manufacturing in the semiconductor and other high-tech industries. Arrowhead made a \$2.0 million matching investment.

“We are delighted to add Entegris to our expanding roster of customers and partners who are also strategic investors in Unidym,” said Art Swift, Unidym’s president and CEO. “These technology savvy investors are a strong endorsement of our products, technology and overall strategic vision on the commercialization of our carbon nanotubes in the market.”

John Goodman, chief technology officer of Entegris, said: “We are pleased to expand our partnership with Unidym as it continues to lead the industry in delivering high quality CNTs and CNT enhanced products to the market. We are using Unidym’s CNTs to develop a number of new materials that will enable us to augment our portfolio of highly differentiated, high performance products to the semiconductor industry. Our work with Unidym will also help us as we use our materials sciences core competencies to serve our customers in other high technology markets.”

Unidym is pursuing a cross-industry partnership strategy to capture value from the wide ranging uses of CNTs outside its core focus of carbon nanotube electronics. Unidym’s licensing program, technical expertise and manufacturing facilities can enable partners to rapidly develop CNT solutions for their specific applications.

- more -

“We are impressed with Unidym’s rapid progress and are happy to provide continued support,” said Arrowhead CEO Chris Anzalone. “Unidym has had great success attracting powerful customers, partners and strategic investors. Entegris is yet another market leader to see real value in Unidym’s platform and talented team.”

The \$4M of additional capital represents follow on investments in Unidym’s Series C financing. Battelle, Tokyo Electron Ventures and several financial institutions also participated in the Series C round.

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#### **About Arrowhead Research Corporation**

Arrowhead Research Corporation ([www.arrowheadresearch.com](http://www.arrowheadresearch.com)) (NASDAQ:ARWR) is a publicly-traded nanotechnology company commercializing new technologies in the areas of life sciences, electronics, and energy. Arrowhead is building value for shareholders through the progress of majority owned subsidiaries founded on nanotechnologies originally developed at universities. The company works closely with universities to source early stage deals and to generate rights to intellectual property covering promising new nanotechnologies. Currently, Arrowhead has four subsidiaries commercializing nanotech products and applications, including anti-cancer drugs, RNAi therapeutics, carbon-based electronics and compound semiconductor materials.

#### **About Unidym, Inc.**

Unidym ([www.unidym.com](http://www.unidym.com)) is a leader in the manufacture and application of carbon nanotubes (CNTs), a novel material with extraordinary electrical, thermal and mechanical properties. Unidym provides bulk materials, CNT-enabled products and intellectual property to a wide range of customers and business partners. As a result of its recent merger with CNI, Unidym possesses a foundational patent portfolio that covers nearly every aspect of CNT manufacturing and processing, as well as multiple product applications.

Unidym is focused on the electronics industry where its initial products include transparent electrodes for touch screens, flat panel displays, solar cells, and solid state lighting; electrodes for fuel cells; and thin film transistors for printable electronics. Unidym is also pursuing a cross-industry partnership strategy to capture value from the wide ranging uses of CNTs. Unidym’s licensing program, technical expertise and manufacturing facilities can enable partners to rapidly develop CNT solutions for their specific applications.

#### **About Entegris**

Entegris is a leading provider of a wide range of products for purifying, protecting and transporting critical materials used in processing and manufacturing in the semiconductor and other high-tech industries. Entegris is ISO 9001 certified and has manufacturing, customer service and/or research facilities in the United States, China, France, Germany, India, Israel, Japan, Malaysia, Singapore, South Korea and Taiwan. Additional information can be found at [www.entegris.com](http://www.entegris.com).

#### **Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995:**

*This news release contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. These statements are based upon our current expectations and speak only as of the date hereof. Our actual results may differ materially and adversely from those expressed in any forward-looking statements as a result of various factors and uncertainties, including the future success of our clinical studies, our ability to successfully develop and manufacture products, rapid technological change in our industry, changes in demand for our future products, legislative, regulatory and competitive developments and general economic conditions. Our Annual Report on Form 10-K, and other SEC filings discuss these and other important risk factors that may affect our business, results of operations and financial condition. We undertake no obligation to revise or update publicly any forward-looking statements for any reason.*