# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

# FORM 10-KSB

(Mark One)

☑ ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended September 30, 2004.

 $\ \square$  TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_\_to \_\_\_\_\_

Commission file number 000-21898

# ARROWHEAD RESEARCH CORPORATION

(Name of small business issuer in its charter)

**Delaware** (State of incorporation)

46-0408024 (I.R.S. Employer Identification No.)

1118 East Green Street
Pasadena, California 91106
(626) 792-5549
(Address and telephone number of principal executive offices)

150 South Los Robles Ave
Suite 480
Pasadena, California 91101
(Former address of principal executive offices)

Securities registered under Section 12(b) of the Exchange Act:

None None None

Securities registered pursuant to Section 12(g) of the Exchange Act:

Common Stock, \$.001 par value Common Stock Purchase Warrants

Check whether the issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  $\boxtimes$  No  $\square$ 

Check if disclosure of delinquent filers in response to item 405 of Regulation S-B is not contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB.

Indicate by checkmark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act. Yes  $\square$  No  $\boxtimes$ 

Issuer's revenue for its most recent fiscal year: None

The aggregate market value of issuer's outstanding Common Stock held by non-affiliates was approximately \$69,752,903 based upon the bid price of issuer's Common Stock on September 30, 2004.

As of September 30, 2004, 13,631,546 shares of the issuer's Common Stock were outstanding.

#### PART I

#### Item 1. Description of Business.

Unless otherwise noted, (1) the term "Arrowhead Research" refers to Arrowhead Research Corporation, a Delaware corporation formerly known as InterActive Group, Inc., (2) the terms "Arrowhead," the "Company," "we," "us," and "our," refer to the ongoing business operations of Arrowhead and its subsidiaries, whether conducted through Arrowhead Research or a subsidiary of the company, (3) the term "ARC" refers to Arrowhead Research Corporation, a privately-held California corporation, the shareholders of which Arrowhead Research consummated a stock exchange transaction in January 2004 (the "Share Exchange"), (4) the terms "Common Stock" and "stockholder(s)" refer to Arrowhead Research's common stock and the holders of that stock, respectively, and (5) the term "Warrant" refers to warrants to purchase Company Common Stock.

#### Overview

Arrowhead Research is a diversified, development stage nanotechnology company structured to bring together an innovative mix of technologies in the areas of healthcare, semiconductors and manufacturing processes, as well as some of the most respected minds in this dynamic field.

Nanotechnology generally refers to the investigation, design, and manipulation of matter at the atomic, molecular, or macromolecular levels. Due to their size and unique properties, nanoscale materials, devices, and systems could be used in a variety of different commercial applications.

The Company's principal executive offices are located at 1118 East Green Street, Pasadena, California 91106, and its telephone number is (626) 792-5549.

#### **Description of the Business**

Arrowhead is a development-stage company, and its business model is based on three strategic components:

- <u>The Commercialization Program</u>: Arrowhead forms or acquires majority-owned subsidiary companies pursuing products based on nanotechnology in high-growth technology markets.
- The Research Program: Arrowhead funds nanoscience research at universities in exchange for exclusive rights to license the technology.
- The IP Toolbox: Arrowhead acquires, licenses, and sublicenses intellectual property in nanotechnology.

Arrowhead's business model is designed to provide its subsidiaries and research groups with financial, administrative, corporate and strategic resources. The Company believes that this business model will enable each research team to maintain focus on specific technologies and each management team to focus on specific markets, increasing the likelihood of successful technological development and commercialization. We expect that additional advantages will include, among others, the following:

- Arrowhead's management and scientific advisors will be positioned to identify and finance efforts to commercialize products with the most immediate market potential while acquiring intellectual property rights to products with longer term potential.
- Arrowhead, its subsidiaries and sponsored scientists can leverage technology, know-how, and intellectual property being generated by others within
  the Arrowhead family of companies or developed in sponsored research projects.
- Funding research at universities enables Arrowhead to develop networks and relationships with university professors and graduate students. These networks provide information for new investment opportunities, serve as resources for conducting due diligence, and are a supply of future Arrowhead employees.

- Arrowhead maintains a great deal of flexibility in financing different research and commercial projects. While Arrowhead has the ability to make
  additional capital contributions, it may choose to forfeit shares in its subsidiaries in lieu of making an additional cash investment. Arrowhead can also
  terminate its sponsored research agreements at any time upon written notice.
- Arrowhead continues to diversify in a variety of different nanoscale materials, devices, and systems that could impact diverse markets. As such, the
  Company is positioned to capture value from the general trend toward miniaturization in coming years.

Currently, operations conducted by Arrowhead and its subsidiaries consist of primarily technological research and development. It could take a long time to bring products to market, and success is uncertain. We can give no assurances that research and development being conducted by Arrowhead or any of its subsidiaries will generate any revenue or profits. See "Risk Factors" for additional information on the risks and uncertainties associated with Arrowhead's business.

As of September 30, 2004, Arrowhead Research Corporation had 6 employees, all of whom were full time.

#### **Subsidiaries**

In the year ended September 30, 2004, we acquired controlling interests in the following three product-driven companies, which we operate as majority-owned subsidiaries (the "Subsidiaries"):

Subsidiary	% Ownership	Technology/Product Focus
Aonex Technologies, Inc. founded April 20, 2004	80%	Semiconductor nanomaterial process with initial emphasis on high efficiency solar cells
Insert Therapeutics, Inc. acquired June 4, 2004	62%	Nano-engineered drug and nucleic acid delivery system, preparing for clinical trials
Nanotechnica, Inc. founded April 23, 2004	74%	Developing capabilities for mass-production of a variety of nanoscale devices and systems, initially focusing on tools and sensors

In each case, Arrowhead provided capital in exchange for a majority-interest in the Subsidiary and the right to appoint a majority of the Subsidiary's Board of Directors. Arrowhead may elect to provide future additional capital to each Subsidiary or to forfeit a specified portion of its interest in lieu of additional future funding. The following is a summary of the terms of the initial and potential additional capitalization for each Subsidiary:

Subsidiary	Initial Capitalization	Potential Additional Capitalization	% interest not subject to forfeiture, regardless of future funding
Aonex	\$ 2,000,000	\$ 3,000,0000(1)	20%
Insert	\$ 1,000,000	\$ 4,000,000(2)	20%
Nanotechnica	\$ 4,000,000	\$ 16,000,000(3)	20%

<sup>(1)</sup> Arrowhead may provide additional capital over a two year period if Aonex meets certain milestones. If Aonex fails to meet such milestones, Arrowhead would not forfeit ownership interest even if Arrowhead elected not to provide additional capital.

- Arrowhead may provide additional capital of \$1,000,000 early in 2005. Two further contributions of \$1,500,000 each may be made upon commencement of the Phase I and Phase II clinical trials of the Cyclosert-camptothecin conjugate. If Insert does not commence clinical trials, Arrowhead would not forfeit ownership interest even if Arrowhead elected not to provide additional capital.
- (3) Arrowhead may provide additional capital early in 2005 or delay funding by mutual agreement. If Arrowhead fails to provide the additional capital or obtain agreement to delay, a portion of its interest in Nanotechnica would be forfeited.

#### Aonex Technologies, Inc.

Aonex's technology development efforts are directed toward commercializing a method for manufacturing semiconductor nanomaterials. The Aonex process involves transferring nano-layers of expensive semiconductor materials and oxides onto low-cost substrates (e.g., silicon, sapphire, and glass), with no adhesives and with controlled stress. The process could produce high-performance laminate wafers (e.g., indium phosphide-on-silicon and germanium-on-silicon) that offer the electrical and optical characteristics of exotic semiconductor materials and mechanical stability levels associated with silicon.

If the method can be advanced to reliable mass production, these engineered substrates are expected to reduce manufacturing costs and improve performance for select device applications including LEDs, high frequency power amplifiers, and high-efficiency solar cells. With even further development, this type of technology could enable the integration of optical, logical, and high frequency power amplification devices into single dies — an industry trend termed 'system on a chip' (SoC).

Currently, Aonex is performing on-going testing of its layering method on two target materials, using outsourced facilities and implantation providers, and is continuing evaluation of optimal anneal conditions to minimize production costs. In addition, Aonex is establishing relationships with third-party providers of specific elements of Aonex's manufacturing process. Aonex has recently completed facility improvements to allow for a scale up of its testing program.

#### **Intellectual Property**

Aonex has licensed a suite of intellectual property from Caltech in exchange for the issuance to Caltech a warrant to purchase 700,000 shares of Aonex common stock for nominal consideration. This license agreement provides Aonex with exclusive, worldwide rights to certain patents applications filed by Caltech.

#### Key Personnel

Research is led by consultant Dr. Harry Atwater, the Howard Hughes Professor of Applied Physics and Materials Science at Caltech and co-inventor of Aonex's core technology. Professor Atwater has consulted extensively for industry and government, and has actively served the materials science community in various capacities. He is a team leader for the NREL National Thin Film Si Photovoltaics team and serves on the Director's Review Committee, Chemistry and Materials Science Division, Lawrence Livermore National Laboratory; and the Board of Directors, Gordon Research Conferences. He has served on the Department of Energy, Office of Science, Division of Materials Sciences Visiting Committee; Stanford University Department of Materials Science and Engineering Visiting Committee; and National Science Foundation Division of Materials Research Visiting Committee.

Sean Olson is the President of Aonex and has both technical and business experience in the semiconductor industry. Mr. Olson served in engineering and management positions at Silicon Valley Group Lithography (acquired by ASML), and supported technology and business development efforts at Oraxion Diagnostics, a start-up in the metrology space. He was also a strategy consultant for The Boston Consulting Group.

As of September 30, 2004, Aonex had 3 employees, all of whom were full time.

#### Insert Therapeutics, Inc.

Dr. Mark Davis and the scientific team at Insert have developed a class of nanoscale cyclodextrin polymers that are designed to be used for drug delivery. Insert's cyclodextrin-based polymers, called Cyclosert™, have been shown to reduce drug toxicity, improve solubility, increase circulation time in the body, and can be modified to trigger the release of the therapeutic compound at the appropriate time and in the desired location.

Insert has focused its initial drug development efforts on delivery of Camptothecin, which is an anti-cancer agent that has not been commercialized due its poor solubility, unfavorable pharmacokinetics, and non-specific interactions with human blood. Insert has completed testing of a Camptothecin-Cyclosert conjugate in tissue culture and small-scale animal studies. The conjugate has shown greatly reduced toxicity and promising efficacy at much lower doses in the small-scale animal studies. Insert is preparing to outsource the manufacture of the conjugate in large quantities and to commence large-scale animal studies. Insert hopes to file an Investigational New Drug (IND) application in the near future and is planning clinical trials with City of Hope Comprehensive Cancer Center.

In 1998, researchers discovered a new method for inhibiting messenger RNAs (RNAi.) Insert's technology can also be used for RNAi. Because RNAi can be used to prevent the expression of specific genes, it might provide new and more effective treatment against various diseases. Yet, despite the potential of RNAi technology, researchers have not yet found an effective delivery mechanism. Management believes that Insert has one of the first patent applications filed on a delivery mechanism for RNAi, and Insert is pursuing collaborative arrangements with RNAi companies and researchers to determine the best way to combine Cyclosert with RNAi technology.

#### **Intellectual Property**

Insert Therapeutics has an exclusive, worldwide license from Caltech to a suite of U.S. and foreign patents that are pending or have been issued. Insert has also filed its own U.S. and foreign patent applications, which are still pending.

#### Key Personnel

Dr. Mark Davis is the founder of Insert and co-inventor of Insert's core technology. Dr. Davis is the Warren and Katharine Schlinger Professor of Chemical Engineering at Caltech. He is a Member of the National Academy of Engineering and a recipient of numerous awards including the prestigious Alan T. Waterman Award, given by the National Science Foundation annually to only one scientist in the United States across all disciplines. Dr. Davis was the first engineer to win this award for his work in rationally designed materials. Dr. Davis earned his B.S., M.S. and Ph.D. degrees in Chemical Engineering and holds over 25 patents, has published more than 250 papers and has presented over 400 seminars throughout the world.

Research and development is under the direction of Dr. Thomas Schluep, Insert's Chief Scientific Officer. Dr. Schluep, joined the company in August 2004. Dr. Schluep is an expert in the development of formulations for biologics. Prior to joining Insert, he was responsible for the non-viral gene therapy program at Canji, Inc., a wholly owned subsidiary of Schering-Plough. He successfully led an interdisciplinary team of scientists in their effort to develop synthetic gene delivery vehicles for the systemic treatment of cancer with the p53 tumor suppressor gene. His other research activities included the development of formulations that enhance adenoviral gene delivery after systemic or local regional administration. As a senior member of the bio-analytical group, he was also responsible for assay development, qualification, and GMP testing of adenoviral gene therapy vectors. Prior to Canji, Dr. Schluep was a post-doctoral associate at the department of Chemical Engineering at the Massachusetts Institute of Technology. He received his Sc.D. in Process Engineering in 1995 and an MS in Biotechnology in 1989, both from the Swiss Federal Institute of Technology in Zurich, Switzerland.

Insert's corporate and business activities are led by its President, John Petrovich. Mr. Petrovich brings general management, strategic planning, legal and fundraising expertise to Insert. His recent management activities include serving as Chief Operating Officer of NeTune Communications, a privately-held satellite communications services firm serving the film production industry. Prior to that, he was a partner at the law firm of Brown Raysman Millstein

Felder & Steiner LLP, and a corporate finance partner at the law firm of Morrison & Foerster. He earned his B.S. in Business Administration/Finance from the University of Southern California and his Juris Doctor from the UCLA School of Law.

As of September 30, 2004, Insert had 5 employees, all of whom were full time, and one consultant who is acting as President.

#### Nanotechnica, Inc.

Nanotechnica aims to establish capabilities for manufacturing a variety of nanoscale devices and systems. In the near term, Nanotechnica is pursuing the development of several simple, early-stage products. The atomic force microscope (AFM) enables scientists to view and manipulate individual molecules and atoms. Nanotechnica's first product is likely to be a cantilever probe designed to significantly improve the performance of the atomic force microscope. Microfluidics, which involves the fabrication of tiny pumps and valves on a chip, can be used to manipulate and separate materials such as proteins and genes in solution. Nanotechnica's second product is likely to use microfluidics to place an integrated system for molecular separation and detection on a single silicon chip. Thus far, the scientific research team at Nanotechnica has developed prototypes for AFM probes, a prototype for molecular separation and detection using microfluidics, and a prototype for an all-electronic, label-free pathogen sensor with sensitivity down to single bacterial cells / spores.

If successful, the processes involved in realizing these first-generation products could be utilized and extended to launch successful, more complicated nanotechnologies such as environmental sensors and molecular diagnostics.

#### **Intellectual Property**

Caltech has granted Nanotechnica fully-paid, worldwide, exclusive licenses to a large portfolio of U.S. and international patents and patent applications covering microfluidics, nanoelectromechanical systems, and other related technologies developed by Dr. Roukes and Dr. Yu-Chong Tai at Caltech in return for a warrant to purchase, for a nominal consideration, shares of Nanotechnica's common stock. Nanotechnica's license agreements with Caltech include the right to license improvements to the technologies that are developed in the labs of Dr. Michael Roukes and Dr. Yu-Chong Tai at Caltech.

#### Key Personnel

Dr. Michael Roukes is Nanotechnica's Chief Technical Officer. Dr. Roukes is a Caltech Professor of Physics, Applied Physics and Bioengineering. Dr. Roukes has gained worldwide recognition through his work on the physics and fabrication of nanoscale electronic devices. He is the founding Director of Caltech's newly-formed Kavli Nanoscience Institute, which has received over \$32 million in donations from private sources to foster innovative research at the frontiers of nanoscale science and engineering. At Caltech, he is co-founder/co-director both of the *Initiative in Computational Molecular Biology* (CMB) and the *Laboratory for Large Scale Integration of Nanostructures* (LSI Nano). Among his external activities, he chairs the external advisory board of Harvard University's nanoscience center (CIMS), is active on (and has organized) numerous national panels on nanotechnology, *e.g.* for the DoD, DARPA, NSF, IEEE, and ASME. Recently, Dr. Roukes co-founded the multi-institute *Nanosystems Biology Alliance*. Among his honors, Roukes is a fellow of the American Physical Society, and was recently awarded as a Gilbreth Lecturer to the National Academy of Engineering.

Dr. Yu-Chong Tai is a consultant to Nanotechnica. Dr. Tai has extensive experience in micromachines and microfluidics and has developed devices such as sensors, anemometers, actuators, micro valves, and micromotors. He is a Caltech Professor of Electrical Engineering and the Director of the Caltech Micromachining Laboratory.

Nanotechnica's R&D group also includes consultant Dr. Scot Fraser, the Anna L. Rosen Professor of Biology and Director of the Biological Imaging Center at Caltech

As of September 30, 2004, Nanotechnica had 3 full time employees and two consultants.

#### Sponsored Research

In addition to forming Subsidiary companies, as of September 30, 2004, the Company had entered into three arrangements with the California Institute of Technology, and three corresponding individual professors on the faculty of Caltech, Charles Patrick Collier, Marc Bockrath and Harry Atwater to finance research projects in various aspects of nanotechnology development. In each case, the researchers focus their efforts on achieving certain mutually agreed upon goals. Arrowhead monitors the progress of the research and works with the researchers in identifying patentable inventions. In exchange for funding the research, the Company has obtained the exclusive right to license and commercialize any technology developed as a result of the research.

The Company is engaged in negotiations with Caltech and additional members of its faculty pertaining to additional research agreements, and the Company anticipates entering into comparable arrangements with other researchers in the nanotechnology field, both at Caltech and at other universities.

The three research agreements currently being financed by Arrowhead are:

**Nanoelectronics:** Professor Marc Bockrath and his team of scientists at Caltech are investigating the behavior of electronic circuits comprised of nanoscale materials. The Bockrath group is researching the transport phenomena of nanoscale systems to create devices, such as memories and logic gates, which operate on these new principles. In particular they are examining the nature of carbon nanotubes.

Carbon nanotubes have several attractive qualities: they are chemically stable, have the electrical conductivity of copper, the thermal conductivity of diamond, and are mechanically flexible with an extremely high strength-to-weight ratio. Research by the Bockrath group is focused on developing more powerful electromechanical devices, including faster memory chips, switches, and signal processors, and the creation of arrays of sensors that can be individually tailored to detect particular chemical species, enabling on-chip, artificial-nose chemical identification.

*Nanobiomolecular Tools:* Professor C. Patrick Collier's group is developing new technologies that will enable the study and control of biomolecular materials and dynamics at the nanoscale. These new tools involve atomic force microscopy (AFM), microfluidics-based chips, and fluorescence microscopy.

Dip-pen nanolithography uses chemically modified AFM tips to pattern biological molecules at the nanoscale on a surface of interest. Collier's group has demonstrated, on a preliminary basis, catalytic activity from nanoarrays of functional enzymes patterned with dip-pen nanolithography by monitoring the formation of fluorescent products of enzymatic reactions in microfluidic channels. This sets the stage for potential rapid testing of large libraries of enzymes in microfluidic "lab-on-a-chip" based devices as well as the screening of inhibitors against substrate binding as possible new drugs.

The Collier Lab has also developed scanning "nanoelectrode" probes consisting of single-wall carbon nanotubes attached to AFM tips. Carbon nanotube tips offer superior imaging resolution compared to conventional AFM tips. Additionally, the nanotubes are conductive and can be chemically or biologically functionalized in unique ways to serve as biomolecule-specific sensors and triggering devices integrated with AFM. These nanotube AFM probes have the capability to generate higher resolution topographical imaging and are expected to be used to correlate molecular structure to biochemical dynamics.

*Ferroelectric Nanomaterials:* The Atwater group is developing methods of engineering ferroelectric nanomaterials. Microelectromechanical systems (MEMS) and nanoelectromechanical systems (NEMS) are small scale devices that combine electrical and mechanical components. To realize the full potential of MEMS and NEMS, new materials with better reliability and performance must be used. Ferroelectric nanomaterials are a promising candidate because they have high piezoelectric constants – this means mechanical change produces an electrical charge, and vice versa. The Atwater lab is developing new ferroelectric film synthesis capabilities to make thin film piezoelectric devices with very high work output that are suitable for integration into different devices.

#### **Acquired Technology**

On January 12, 2004, in connection with the Share Exchange (described below), the Company acquired certain technology from San Diego Magnetics, Inc. ("SDM"). The intellectual property acquired by the Company from SDM includes all know-how developed by SDM relating to thin film fabrication and design of thin film devices for magnetic sensing, nanoscale optical coatings and other thin film sensors (excluding know-how related to the sensing of currency or other documents containing stored monetary value). It also includes SDM's rights under a non-exclusive license from Kodak to use a total of 71 patents relating to thin film coatings, magnetic detectors, systems and other devices fabricated using thin film fabrication technologies.

#### **Corporate History**

The Company was originally incorporated in South Dakota in 1989, and was reincorporated in Delaware in 2000 under the name InterActive, Inc.

#### Formation and initial funding of the California corporation

Arrowhead Research Corporation, a privately-held California corporation ("ARC" of the "California corporation") was incorporated in May 2003 to pursue the Company's current plan of operations. At the founding of the Company in May 2003, ARC issued 3,000,000 shares of Common stock at par value and Warrants to purchase 3,000,000 shares of Common Stock with an exercise price of \$1.50.

In October 2003, ARC completed a private placement of units consisting of a share of common stock and a warrant to purchase a share of common stock at a per unit price of \$1.00. Pursuant to the private placement, ARC issued 2,645,000 shares of common stock and warrants to purchase 2,645,000 shares of common stock with an exercise price of \$1.50. The October 2003 private placement closed in two steps: the first step prior to September 30, 2003, at which closing 1,680,000 units were issued, with the remaining 965,000 units issued in a second closing after September 30, 2003. In addition, the Company issued 10,000 shares of common stock and warrants to purchase 264,500 shares of common stock with an exercise price of \$1.50 and \$255,500 as finders fees.

#### Share Exchange

On January 12, 2004, InterActive, Inc. consummated a stock exchange transaction with the owners of ARC, referred to as the "Share Exchange," and InterActive changed its name to Arrowhead Research Corporation.

Prior to the issuance of Common Stock and Warrants in the Share Exchange, the Company effected a 1-for-65 "reverse split" of its outstanding Common Stock and a 1-for-6.5 conversion of its Series A Preferred Stock into shares of Common Stock. As a result, a total of 389,197 shares of Common Stock of InterActive Inc. were then outstanding. An additional 316,332 shares of the Company's Common Stock, and Warrants to purchase an additional 658,583 shares of Common Stock at an exercise price of \$1.50 per share, were issued in connection with a program to reduce the total debt of the Company to a maximum of \$150,000, and to acquire the SDM Technology.

The owners of ARC exchanged 5,730,000 shares of ARC common stock for 5,730,000 (89%) shares of Common Stock of the Company, and the Company acquired 100% of the issued and outstanding stock of ARC, with ARC becoming a wholly-owned subsidiary of the Company. In addition, the ARC warrants noted above were exchanged for Warrants to purchase, at the same exercise price per share, the same number of shares of the Company's Common Stock.

#### Additional Funding

On January 31, 2004, the Company completed a private placement of units consisting of a share of Common Stock and a Warrant to purchase a share of Common Stock at a per unit price of \$1.50. Pursuant to this private placement, the Company issued 6,608,788 shares of Common Stock and Warrants to purchase 6,608,788 shares of Common Stock at exercise price of \$1.50. In connection with the private placement, the Company issued 356,229 shares of Common Stock, Warrants to purchase 660,877 shares of Common Stock at \$1.50 and \$466,972 as finders fees.

#### Other equity transactions

The Company issued 150,000 shares of Common Stock to Caltech in 2004 as a contribution to that university and 156,000 shares of Common Stock in conjunction with the exercise of non employee stock options.

#### Registration of Shares

All of the securities issued by the Company in connection with the Share Exchange were issued without registration under the Securities Act of 1933, as amended (the "Securities Act"), in reliance upon the exemption therefrom provided by Section 4(a) and Regulation D thereunder.

After the Share Exchange, the Company registered for resale under the Securities Act 13,061,650 shares of the Company's Common Stock and 13,837,748 Warrants to purchase shares of the Company's Common Stock, as well as 13,837,748 shares issuable upon exercise of the Warrants, that were issued in connection with the transactions contemplated by the Share Exchange, including the shares and Warrants issued to the former shareholders of the California corporation, the shares and Warrants issued in connection with the Company's January private placement, the shares issued in connection with the InterActive's debt reduction program. and the shares and Warrants issued to acquire the SDM Technology. The Company's registration statement on Form S-3, registering the resale of such securities was declared effective on October 7, 2004.

#### Item 2. Description of Property.

The Company leases the following facilities in Pasadena, California.

	Lab/Office Space	Mo	onthly Rent	Lease Commencement	Lease Term
Arrowhead	3500 sq ft	\$	6,125	June 1, 2004	18 months
Aonex	4000 sq ft	\$	6,009	July 1, 2004	24 months
Insert	7000 sq ft	\$	10,543	N/A	Month to month
Nanotechnica	N/A		N/A	N/A	N/A

The Company has no plans to own any real estate and all leases will be operating leases.

#### Item 3. Legal Proceedings.

Prior to the Share Exchange, the Company was delinquent on its interest payments on its secured note and a portion of its trade accounts payable, and had several judgments against it as a result of its inability to pay its obligations to its unsecured trade creditors. In connection with the reduction of its debt, the Company has obtained releases or otherwise extinguished all claims and liens against it, except for claims totaling, in the aggregate, less than \$10,000.

#### Item 4. Submission of Matters to a Vote of Security Holders.

At a special meeting held on January 12, 2004, the Company's stockholders approved amendments to the Company's Certificate of Incorporation to (i) effect the 1-for-65 "reverse split" of the Company's outstanding Common Stock and the 1-for-6.5 conversion of the Company's outstanding Series A Preferred Stock into shares of the Company's Common Stock, and (ii) change the Company's corporate name from "InterActive Group, Inc." to "Arrowhead Research Corporation." All of the directors and officers of the Company, who together possessed, directly or through one or more affiliates, the power to vote at least a majority of all classes of the issued and outstanding voting securities of the Company as of the record date for the special meeting, had indicated that they would vote, or cause to be voted, all of the securities over which they had voting control in favor of the approval of the proposed amendments. Therefore, approval of the proposed amendments by the stockholders of the Company was assured, no additional votes in favor of approval of the amendments were required, and no proxies were solicited. However, all of the stockholders of record as of the record date for the special meeting were furnished a

copy of the Information Statement on Schedule 14C, dated December 22, 2003 that the Company filed with the U.S. Securities and Exchange Commission (the "SEC"). Although management believes that the Information Statement contained all information that would be considered material by the then stockholders of the Company, it did not contain certain information regarding the California corporation, including its financial statements, which may have been required to be included therein by the rules and regulations of the SEC.

#### PART II

#### Item 5. Market for Common Equity and Related Stockholder Matters.

#### **Recent Market Prices**

The Company's Common Stock was traded in the over-the-counter market and, through January 13, 2004, was quoted on the NASD Electronic Bulletin Board under the symbol "IACG." As a consequence of the change in the Company's name on January 12, 2004, the symbol under which the Common Stock subsequently traded was changed to "ARWR." On August 30, 2004, NASDAQ approved the Company's Common Stock and Warrants for listing on the NASDAQ SmallCap Market™. The Warrants are traded under the symbol "ARWRW." On October 5, 2004, the SEC completed its review of the Company's Form S-3 registration statement, and the registration statement became effective on October 7, 2004. The registration statement covers 13,061,350 shares of the Company's Common Stock, 13,837,748 Warrants for purchase of its Common Stock, and all of the 13,837,748 shares of Common Stock issuable upon exercise of the Warrants.

During the year ended September 30, 2004, the average weekly trading volume ranged from zero to 12,000 shares. Subsequent to September 30, 2004, after the registration of the Common Stock and Warrants discussed above, the average weekly trading volume ranged from 26,000 to 247,000 shares. Prior to the S-3 becoming effective, the trading price of the Company's Common Stock was approximately \$5.00 per share. Since the registration statement became effective on October 7,2004, the trading price of our Common Stock through December 15, 2004 ranged from \$2.02 to \$4.94 per share.

The stock markets have experienced extreme price and volume fluctuations during certain periods. These broad market fluctuations and other factors may adversely affect the market price of the Company's Common Stock for reasons unrelated to the Company's operating performance.

The following table sets forth the high and low bid prices for a share of the Company's Common Stock during each period indicated, as quoted on the NASD Electronic Bulletin Board and Nasdaq Small Cap after August 27, 2004. Bid quotations reflect inter-dealer prices, without mark-up, mark-down or commission, and may not represent actual transactions. On January 12, 2004, the Company effected a 65-for-1 "reverse split" of its Common Stock. The following table sets forth the high and low bid prices for a share of the Company's Common Stock during each period indicated, adjusted to give effect to the 65-for-1 "reverse split" as if it had occurred at the beginning of the first period indicated.

	Fiscal Ye	Fiscal Year Ended Septe		nber 30,
	200	2004		03
	High	Low	High	Low
1st Quarter	3.90	.65	1.30	.325
2nd Quarter	15.00	1.95	.65	.325
3rd Quarter	9.00	4.50	.975	.325
4th Quarter	8.00	4.00	.975	.325

On September 30, 2004, the closing price of a share of the Company's Common Stock, as quoted on NASDAQ, was 5.50.

#### **Shares Outstanding**

At September 30, 2004, an aggregate of 13,631,546 shares of the Company's Common Stock were issued and outstanding, and were owned by 684 stockholders of record, based on information provided by the Company's transfer agent.

#### Dividends

The Company has never paid dividends on its Common Stock and does not anticipate that it will do so in the foreseeable future. The future payment of dividends, if any, on the Common Stock is within the discretion of the Board of Directors and will depend on the Company's earnings, its capital requirements and financial condition and other relevant factors.

#### **Description of Securities**

The Company's proxy statement for the 2005 Annual Meeting seeks stockholder approval to increase the number of authorized shares to 75,000,000, consisting of 70,000,000 authorized shares of Common Stock and 5,000,000 shares of Preferred Stock.

The authorized capital stock of the Company currently consists of 50,000,000 shares of Common Stock, \$.001 par value, and 10,000,000 shares of Preferred Stock, \$.001 par value. As of September 30, 2004, 13,631,546 shares of the Company's Common Stock were outstanding, and no shares of the Company's Preferred Stock were outstanding. In addition, Warrants to purchase an aggregate of 13,837,748 shares of the Company's Common Stock, at the price of \$1.50 per share, were outstanding as of September 30, 2004.

Common Stock. Holders of the Company's Common Stock are entitled to receive ratably dividends out of funds legally available for that purpose if, as and when declared by the Board of Directors. The Company has never paid cash dividends on its Common Stock and the Board of Directors does not anticipate that the Company will pay cash dividends of its Common Stock in the foreseeable future. The future payment of dividends, if any, on the Company's Common Stock is within the discretion of the Board of Directors and will depend upon earnings, capital requirements, financial condition and other relevant factors. The dividend rights of the Company's Common Stock also are subject to the rights of any Preferred Stock which may be issued. Each holder of the Company's Common Stock is entitled to one vote for each share held on each matter presented for stockholder action, and there is no cumulative voting in the election of directors. Holders of the Company's Common Stock have no preemptive, subscription, redemption or conversion rights. In the case of any liquidation, dissolution or winding up of the affairs of the Company, holders of the Company's Common Stock would be entitled to receive, pro rata, any assets distributable to common stockholders in respect of the number of shares held by them. The liquidation rights of the Company's Common Stock would be subject to the rights of holders of any Preferred Stock outstanding at the time of such liquidation. All outstanding shares of the Company's Common Stock are fully paid and nonassessable under the laws of the State of Delaware.

Preferred Stock. The Company is authorized to issue, subject to any limitations prescribed by the laws of the State of Delaware but without further action by the Company's stockholders, up to 10,000,000 shares of Preferred Stock from time to time in one or more series with such designations, powers, preferences and relative voting, distribution, dividend, liquidation, transfer, redemption, conversion and other rights, preferences, qualifications, limitations or restrictions as may be provided for the issue of such series by resolution adopted by the Company's Board of Directors. Such Preferred Stock could have priority over the Company's Common Stock as to dividends and as to the distribution of the Company's assets upon any liquidation, dissolution or winding up of the Company. In addition, the Company's Board of Directors may authorize and issue Preferred Stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the Company's Common Stock. The issuance of such Preferred Stock may have the effect of delaying, deferring or preventing a change in control of the Company.

Stock Purchase Warrants. Each of the Warrants currently outstanding are exercisable, on the identical terms and conditions, to purchase one share of the Company's Common Stock at the price of \$1.50 per share. The Warrants expire June 30, 2013. The Warrants are redeemable at the Company's option, in whole but not in part, on 30 days'

prior written notice, at the price of \$0.001 per Warrant, provided that the closing bid price for a share of the Company's Common Stock has equaled or exceeded \$3.00 per share for 20 consecutive trading days ending not more than 15 days prior to the date of the redemption notice. For a description of our Warrants, please refer to our Registration Statement on Form 8-A filed on February 23, 2004, and its Amendment No. 1 filed on October 12, 2004.

#### Limitation of Liability; Indemnification.

The Company's Certificate of Incorporation provides for the elimination of personal monetary liability of directors to the fullest extent permissible under Delaware law. Delaware law does not permit the elimination or limitation of director monetary liability for: (i) breaches of the director's duty of loyalty to the corporation or its stockholders; (ii) acts or omissions not in good faith or involving intentional misconduct or knowing violations of law; (iii) the payment of unlawful dividends or unlawful stock repurchases or redemptions or (iv) transactions in which the director received an improper personal benefit.

Section 145 of the Delaware General Corporation Law permits a Delaware corporation to indemnify, on certain terms and conditions, any person who was or is a party or is threatened to be made a party to any threatened pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action. The Certificate of Incorporation and Bylaws of the Company require the Company to indemnify the Company's directors and officers to the fullest extent permitted under Delaware law.

#### Item 6. Management's Discussion and Analysis

#### General

Statements contained in this Annual Report on Form 10-KSB, which are not purely historical, are forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, including but not limited to statements regarding the Company's expectations, hopes, beliefs, intentions or strategies regarding the future. Actual results could differ materially from those projected in any forward-looking statements as a result of a number of factors, including those detailed in "Risk Factors" below and elsewhere in this Annual Report on Form 10-KSB. The forward-looking statements are made as of the date hereof, and the Company assumes no obligation to update the forward-looking statements, or to update the reasons why actual results could differ materially from those projected in the forward-looking statements.

#### Plan of Operations

Prior to the Share Exchange on January 12, 2004, InterActive, Inc. had had no significant source of revenue for the past several years, leading to sustained operating losses and significant working capital deficiencies. InterActive's management concluded that efforts to develop a viable business were not likely to prove successful in the absence of the availability of significant sources of financing, if at all. Consequently, after devoting more than ten years in various attempts to develop a profitable, ongoing business, and without realistic sources of additional financing in sight, management of InterActive was receptive when approached by representatives of the California corporation concerning a possible business combination. Subsequent discussions led to the execution of a Stock Purchase and Exchange Agreement in December 2003, followed by the closing of the Share Exchange on January 12, 2004.

As a consequence of the change in control on January 12, 2004, the a new Board of Directors was elected, new management was installed and the Company adopted a new plan of operations, focusing the operations on funding, purchasing and building subsidiaries to commercialize various aspects of nanotechnology, funding nanotechnology research and building a patent portfolio. (For a more detailed description of the Company's currently planned business activities, see Item 1, "Description of Business.")

Consequently, losses and the revenue generated by the Company in FY 2004 and 2003 bear no relationship to those generated in by InterActive in 2003.

During the period from May 7, 2003 (date of inception) to September 30, 2003, ARC generated a loss of \$95,000 and had no revenue. The expenses related mainly to salary and operating costs related to establishing the business.

During the year ended September 30, 2003, the Company generated a loss of approximately \$2.5 million on revenues of \$196,000. As of September 30, 2004, the Company had working capital of approximately \$8.8 million. The losses for FY 2004 are due primarily to establishing the subsidiaries and starting or continuing the commercialization process.

It is the Company's strategy to leverage technology which has been developed at universities. By doing so, the Company benefits from work done at those universities and can then establish majority-owned subsidiaries to commercialize promising technologies. Although the Company is likely to produce prototypes and develop manufacturing processes, it may not ultimately manufacture products developed. The Company has three main ways to potentially generate product sales revenue:

- License the processes and products to a third party for a royalty or other payment. By licensing, the Company would not have to put resources into building a sales or a production infrastructure and can use those resources to develop additional products.
- Retain the rights but contract with a third party for production. The Company would then sell the finished products. This approach would require either
  the establishment of a sales and distribution network or collaboration with a supplier who has an established sales and distribution network, but not
  require investment in production equipment.
- Build production capability and produce and sell the products made. This last approach would require the most capital to build the production, sales and distribution infrastructure.

The decision as to which approach to take will be dictated by which approach will, in the opinion of management, generate the highest return for the Company.

The \$196,000 in revenue generated in FY 2004 was primarily related to grants, which had been awarded to Insert prior to being acquired by Arrowhead. These grants continue into FY 2005, but there can be no assurance that subsequent grants will be forthcoming. The Company does not expect any product sales or licensing revenue in FY 2005. Therefore, losses can be expected to increase before any substantial revenue is generated. To partially offset these losses, the Company is pursuing other means of funding such as government grants, contracts and collaborations with third parties. The award of such grants and contracts depends on numerous factors and therefore it is difficult to predict if this strategy will be successful.

Approximately 21% of the \$2.9 million in cost incurred in FY 2004 was for payroll and payroll related expenses as the Company hired management, scientific talent and administrative staff for both the Company and its subsidiaries. Approximately 21% of the cost incurred was related to funding research projects at Caltech (see Business Overview above). Legal expenses and consulting services related to the Share Exchange, fund raising, SEC filings and establishment of subsidiaries totaled approximately 17% of the cost incurred. Laboratory supplies made up another 9% of the cost incurred. No other expense category was more then 6% of total cost incurred.

Most of the expenses were generated in the second half of 2004 as the Company staffed up to handle the operations of the Subsidiary companies and the compliance obligations related to being a public company. Further, the expenses incurred were limited by the fact that neither Aonex nor Nanotechnica had a full year of operation in FY 2004. Aonex was founded in April 2004. Nanotechnica was founded in June 2004 and had no employees until September 2004. Finally, the Company purchased Insert in June 2004 and the financials reflect only 4 months of operations related to Insert in 2004. These factors will cause expenses to substantially increase in FY 2005 as compared to FY 2004. This increase will be the result of a full year of development efforts coupled with a significant increase in the number of employees. The Company and subsidiaries plan to hire as many as 20 additional people in FY 2005.

The Company and Subsidiaries also plan to purchase equipment to be used in development. Current plans call for capital expenditures of approximately \$3.8 million in FY 2005 which could be higher if required. Further, the purchase of materials, supplies and services used in developing products or in staging production runs could exceed \$3.1 million during FY 2005. Currently, the Company is forecasting that cash available at September 30, 2004 coupled with an inflow of grant and collaboration money should be sufficient to fund existing operations and capital purchases for the first six months of FY 2005. In addition, the Company intends to raise capital to fund commitments to the existing Subsidiaries, to fund new research projects, to take advantage of new commercialization opportunities and to fund existing operations should the decision be made to accelerate development or production. Although the commitments to fund Subsidiary operations exceed the cash on hand at September 30, 2004, the Company plans to meet all its funding commitments in FY 2005.

University research funding was a major expense in FY 2004. The Company believes that it can gain significant leverage by funding selected nanotechnology projects in exchange for the exclusive rights to license any intellectual property generated. It is hoped that these research projects will lead to technology which the Company can commercialize. However, there can be no assurance that a research project will result in any technology that can be commercialized. The Company plans to expand the funding of research projects in FY 2005 and beyond. However, with a full year of operation under the new plan of operations adopted in January 2004, university research funding expense will decrease as a percentage of overall expenses compared to FY 2004.

#### Financial Resources

Since inception, the Company has had two private placements which raised a total of \$12,101,207. At September 30, 2004, the Company and subsidiaries had \$8,552,667 in cash and cash equivalents and \$487,887 in marketable securities. For a detailed description of the private placements, see "Corporate History" on page 7.

The Company's cash requirements for the next twelve months depend primarily on whether or not the Company agrees to finance additional research, or establishes one or more new subsidiaries. Since it is anticipated that the Company will not internally generate significant revenue or profits in the near term, the Company anticipates raising additional capital to meet commitments made to date.

#### **Risk Factors**

We are a development stage company and we have limited historical operations. We urge you to consider our likelihood of success and prospects in light of the risks, expenses and difficulties frequently encountered by entities at our current stage of development.

#### Certain Risk Factors Relating to Our Business

We are a development stage company and the Company's success is subject to the substantial risks inherent in the establishment of a new business venture.

As a consequence of the change in the control of the Company on January 12, 2004, the Company changed management and all efforts that were previously initiated by prior management were abandoned. At that time, the Company's new management adopted a new plan of operations based on the strategy that was only recently formulated by the California corporation following its formation in May 2003. To date, implementation of this strategy is still in the development stage. We have acquired majority interests in only three Subsidiary companies and have funded only three university research projects at Caltech. The Company's business and operations should be considered to be in the development stage and subject to all of the risks inherent in the establishment of a new business venture. Accordingly, the intended business and operations of the Company may not prove to be successful in the near future, if at all. Any future success that the Company might enjoy will depend upon many factors, many of which may be beyond the control of the Company, or which cannot be predicted at this time. The Company may encounter unforeseen difficulties or delays in the implementation of its plan of operations which could have a material adverse effect upon the financial condition, business prospects and operations of the Company and the value of an investment in the Company.

The Company has not generated revenue and its business model does not predict significant revenues in the foreseeable future.

To date, the Company has not generated any revenue as a result of its current plan of operations. Moreover, given its strategy of financing new and unproven technology research, we do not expect to realize significant revenue from operations in the foreseeable future, if at all.

We must overcome the many obstacles associated with integrating and operating varying business ventures to succeed.

Arrowhead's model to integrate and oversee the strategic direction of various research and development projects presents many risks, including:

- the difficulty of integrating operations and personnel; and
- · the diversion of our management's attention as a result of evaluating, negotiating and integrating acquisitions or new business ventures;

Generally, we provide administrative, operational and financial support to our subsidiaries. If we are unable to timely and efficiently design and integrate our administrative and operational functions, we may be unable to manage projects effectively, which could adversely affect our ability to meet our business objectives and the value of an investment in the Company could decline.

In addition, consummating acquisitions and taking advantage of strategic relationships could adversely impact our cash position, and dilute shareholder interests, for many reasons, including:

- · changes to our income to reflect the amortization of acquired intangible assets, including goodwill;
- interest costs and debt service requirements for any debt incurred to fund our growth strategy; and
- · any issuance of securities to fund our operations or growth which dilutes or lessens the rights of current Stockholders.

We face a difficult and uncertain economic environment in our industry, which could adversely affect our business and operations.

The high-tech industry in general has experienced a significant economic downturn during the past several years. The poor economic environment has contributed to the decline in value of leading semiconductor and electronics industry players, thus limiting cash available for funding basic science research and development for new products and technologies. Economic conditions may not improve in the near term, or at all. Any further future downturn would likely have a material adverse impact on our business and ability to fund our continued investment in nanoscience research and development, or to eventually generate revenues.

There are substantial risks inherent in attempting to commercialize new technological applications, and, as a result, we may not be able to successfully develop nanotechnology for commercial use.

The Company finances research and development of nanotechnology, which is new and unproven. The Company's investigative scientists are at various stages of developing technology and such technology's commercial feasibility and acceptance is unknown. Scientific research and development requires significant financing and has a lengthy lifecycle. To date, the Company's research and development projects have not produced commercially viable applications, and may never do so. During our research and development process, the Company may experience technological issues that it may be unable to overcome. For example, our scientists must determine how to design and develop nanotechnology applications for potential products designed by third parties for use in cost-effective manufacturing processes. Because of these uncertainties, none of our potential applications may be successfully

developed. If the Company is unable to successfully develop nanotechnology applications for commercial use, we will be unable to generate revenue or build a sustainable or profitable business.

We will need to achieve commercial acceptance of our applications to obtain revenue and achieve profitability.

Even if our research and development yields technologically feasible applications, the Company may not successfully develop commercial products on a timely basis, if at all. If the Company's research efforts are successful, it could be at least several years before our technology will be commercially viable, and, during this period, superior competitive technologies may be introduced or customer needs may change diminishing or extinguishing the commercial uses for our applications. To date, the broad markets have generally not adopted nanotechnology-enabled products. The Company cannot predict when broad-market acceptance for nanotechnology-enabled products will develop, if at all, and we cannot reasonably estimate the projected size of any market that may develop. If markets fail to accept nanotechnology-enabled products, we may not be able to achieve revenue from the commercial application of our technologies. Our revenue growth and achievement of profitability will depend substantially on our ability to introduce new technological applications to manufacturers for products accepted by customers. If we are unable to cost-effectively achieve OEM acceptance of our technology, or if the associated products do not achieve wide market acceptance, our business will be materially and adversely affected.

The Company will need to raise additional capital in the near future, and, if we are unable to secure adequate funds on acceptable terms, the Company may be unable to support its business plan.

The Company has entered into agreements pursuant to which the Company is likely to provide substantial amounts of research project funding and financial support for majority-owned subsidiaries over an extended period of time. Because the Company will likely seek to provide funding that greatly exceeds the Company's available cash resources, the Company will need to raise additional capital in the near term, and may seek to do so by calling the outstanding Warrants for redemption, conducting one or more private placements of equity securities, selling additional securities in a registered public offering, or through a combination of one or more of such financing alternatives. There can be no assurance that any additional capital resources which the Company may need will be available to the Company as and when required, or on terms that will be acceptable to the Company. If the Company is unable to raise the capital required on a timely basis, it may not be able to fund its research projects and the development of the businesses of its subsidiaries. In such event, the Company may be required to delay or reduce implementation of certain aspects of its plan of operations. Moreover, even if the necessary funding is available to the Company, the issuance of additional securities would dilute the equity interests of the Company's existing stockholders, perhaps substantially.

The Company's success depends on the attraction and retention of senior management and scientists with relevant expertise.

The Company's future success will depend to a significant extent on the continued services of its key employees, particularly R. Bruce Stewart, who conceived of the Company's business and overall operating strategy and has been most instrumental in assisting the Company raise capital. On September 7, 2004, Joseph T. Kingsley began as Chief Financial Officer of the Company and is a key member of our management team. The Company does not maintain key man life insurance for Mr. Stewart or any other executive. The Company's ability to execute its strategy also will depend on its ability to attract and retain qualified scientists, sales, marketing and additional managerial personnel. If we are unable to find, hire and retain qualified individuals, we could have difficulty implementing our business plan in a timely manner, or at all.

The Company may not be able to compete effectively in securing first-tier research and development projects when competing against existing or new ventures.

Management believes that the Company's success to date in raising capital to finance nanotechnology research and commercialization projects is attributable, in large part, to the belief that the plan of operations adopted by the Company is relatively novel. If the Company continues to be successful in attracting funding for research and commercialization projects, it is possible that additional competitors could emerge and compete for financing. Should that occur, the Company could encounter difficulty in raising funds to finance its future operations and further research and commercialization projects.

Additionally, there are some companies that already fund early-stage, scientific research at universities, and some venture capital funds invest in companies seeking to commercialize technology. It is possible that these established companies and venture funds, as well as possible additional competitors, will emerge to finance nanotechnology research. Should that occur, the Company could encounter difficulty in obtaining the opportunity to finance first-tier research and commercialization projects. Furthermore, should any commercial undertaking by the Company, with respect to a particular product or technology, prove to be successful, there can no assurance those competitors with greater financial resources than the Company will not emerge to offer similar competitive, products and/or technologies.

Nanotechnology-enabled products are new and may be viewed as being harmful to human health or the environment.

There is increasing public concern about the environmental and ethical implications of nanotechnology that could impede market acceptance of products developed through these means. Potentially, nanotechnology-enabled products could be composed of materials such as carbon, silicon, silicon carbide, germanium, gallium arsenide, gallium nitride, cadmium selenide or indium phosphide, and nanotechnology-enabled products have no historical safety record. Because of the size, shape, or composition of the nanostructures or because they may contain harmful elements, nanotechnology-enabled products could pose a safety risk to human health or the environment. In addition, some countries have adopted regulations prohibiting or limiting the use of certain materials that contain certain chemicals, which may limit the market for nanotechnology-enabled products. U.S. government authorities could, for social or other purposes, prohibit or regulate the use of nanotechnology. The regulation and limitation of the kinds of materials used in or to develop nanotechnology-enabled products, or the regulation of the products themselves, could harm the commercialization of nanotechnology-enabled products and impair our ability to achieve revenue from the license of nanotechnology applications.

The Company will need approval from governmental authorities in the United States and other countries to successfully realize commercial value from the Company's activities.

In order to clinically test manufacture, and market products for commercial use, two of the Company's current subsidiaries must satisfy mandatory procedures and safety and effectiveness standards established by various regulatory bodies, including the U.S. Food and Drug Administration (FDA). Technology and product development and approval within this regulatory framework takes a number of years and involves the expenditure of substantial resources. The time and expense required to perform the required testing can vary and is substantial. In addition, no action can be taken to market any biologic, drug or device in the United States until an appropriate marketing application has been approved by the FDA. Furthermore, even after initial FDA approval has been obtained, further trials may be required to provide additional data on safety and effectiveness. Adverse events that are reported during regulatory trials or after marketing approval can result in additional limitations being placed on a product's use and, potentially, withdrawal of the product from the market. Any adverse event, either before or after approval, can result in product liability claims against the Company, which could significantly and adversely impact the value of our Common Stock.

If export controls affecting our products are expanded, our business will be adversely affected.

The U.S. government regulates the sale and shipment of numerous technologies by U.S. companies to foreign countries. Arrowhead's subsidiaries are developing products that might be useful for military and antiterrorism activities. Accordingly, U.S. government export regulations could restrict sales of these products in other countries. If the U.S. government places expanded export controls on our technology or products, our business would be materially and adversely affected. If the U.S. government determines that we have not complied with the applicable export regulations, we may face penalties in the form of fines or other punishment.

The Company's ability to protect its patents and other proprietary rights is uncertain, exposing it to the possible loss of competitive advantage.

The Company's subsidiaries have licensed rights to pending patents and have filed and will continue to file patent applications. The researchers sponsored by the Company may also file patent applications that Arrowhead chooses to license. If a particular patent is not granted, the value of the invention described in the patent would be diminished. Further, even if these patents are granted, they may be difficult to enforce. Efforts to enforce our patent

rights could be expensive, distracting for management, unsuccessful, cause our patents to be invalidated, and frustrate commercialization of products. Additionally, even if patents are issued, and are enforceable, others may independently develop similar, superior, or parallel technologies to any technology developed by us, or our technology may prove to infringe upon patents or rights owned by others. Thus, the patents held by or licensed to us may not afford us any meaningful competitive advantage. Our inability to maintain our licenses and our intellectual property rights could have a material adverse effect on our business, financial condition and ability to implement our business plan. If we are unable to derive value from our licensed or owned intellectual property, the value of your investment in the Company will be decline.

Our Board of Directors has the authority to issue shares of "blank check" Preferred Stock, which may make an acquisition of our company by another company more difficult.

We have adopted and may in the future adopt certain measures that may have the effect of delaying, deferring or preventing a takeover or other change in control of the Company that a holder of our Common Stock might consider in its best interest. Specifically, the Company's Board of Directors currently has the authority to issue up to 10,000,000 shares of preferred stock and to fix the rights (including voting rights), preferences and privileges of these shares ("blank check" preferred). At the upcoming Annual Meeting of Stockholders, the stockholders may approve a proposal that would limit the number of authorized shares of Preferred Stock, however, such preferred stock may have rights, including economic rights, senior to our Common Stock. As a result, the issuance of the preferred stock could have a material adverse effect on the price of our Common Stock and could make it more difficult for a third party to acquire a majority of our outstanding Common Stock.

Certain Risk Factors Relating To Our Stock

Arrowhead's Common Stock price has fluctuated significantly since January 2004 and may continue to do so in the future.

Because we are a developmental stage company, there are few objective metrics by which our progress may be measured. Consequently, we expect that the market price of our Common Stock will likely continue to fluctuate significantly. We do not expect to generate substantial revenue from the license or sale of our nanotechnology for several years, if at all. In the absence of product revenue as a measure of our operating performance, we anticipate that investors and market analysts will assess our performance by considering factors such as:

- · announcements of developments related to our business;
- developments in our strategic relationships with scientists within the nanotechnology field;
- our ability to enter into or extend investigation phase, development phase, commercialization phase and other agreements with new and/or existing partners;
- announcements regarding the status of any or all of our collaborations or products;
- · market perception and/or investor sentiment regarding nanotechnology as the next technological wave;
- announcements regarding developments in the nanotechnology field in general;
- the issuance of competitive patents or disallowance or loss of our patent rights; and
- quarterly variations in our operating results.

We will not have control over many of these factors but expect that our stock price may be influenced by them. As a result, our stock price may be volatile and you may lose all or part of your investment.

<u>Additional General Economic Conditions</u>. The stock prices for many companies in the technology sector have experienced wide fluctuations that often have been unrelated to their operating performance. Such fluctuations may adversely affect the market price of our Common Stock.

The market for purchases and sales of the Company's Common Stock and Warrants may be very limited, and the sale of a limited number of shares or Warrants could cause the price to fall sharply.

Although the Common Stock and the Warrants are listed for trading on The NASDAQ SmallCap Market, currently, our securities are very thinly traded. Accordingly, it may be difficult to sell shares of the Common Stock or the Warrants quickly without significantly depressing the value of the stock. Unless we are successful in developing continued investor interest in our stock, sales of our stock could continue to result in major fluctuations in the price of the stock.

Shareholder interest in the Company may be substantially diluted as a result of the sale of additional securities to fund the Company's plan of operation.

Our Certificate of Incorporation authorizes the issuance of an aggregate of 50,000,000 shares of Common Stock, on such terms and at such prices as the Board of Directors of the Company may determine. The Company's proxy statement for its 2005 Annual Meeting seeks stockholder approval to increase the number of authorized shares of Common Stock to 70,000,000. Of these shares, an aggregate of 13,631,546 shares of Common Stock have been issued, 13,837,748 are reserved for issuance upon exercise of outstanding Warrants, and 3,000,000 shares of Common Stock are reserved for issuance upon exercise of stock options that have been granted or may be granted under the Company's 2000 Stock Option Plan to employees, consultants and others expected to provide significant services to Arrowhead. Therefore, approximately 20,000,000 shares of Common Stock remain available for issuance by the Company to raise additional capital, in connection with prospective acquisitions or for other corporate purposes. Issuances of additional shares of Common Stock would result in dilution of the percentage interest in our Common Stock of all stockholders ratably, and might result in dilution in the tangible net book value of a share of our Common Stock, depending upon the price and other terms on which the additional shares are issued. In addition, the issuance of additional shares of Common Stock upon exercise of the Warrants, or even the prospect of such issuance, may be expected to have an effect on the market for the Common Stock, and may have an adverse impact on the price at which shares of Common Stock trade.

If securities or industry analysts do not publish research reports about our business, of if they make adverse recommendations regarding an investment in our stock, our stock price and trading volume may decline.

The trading market for our Common Stock will be influenced by the research and reports that industry or securities analysts publish about our business. We do not currently have and may never obtain research coverage by industry or securities analysts. If no industry or securities analysts commence coverage of our company, the trading price of our stock could be negatively impacted. In the event we obtain industry or security analyst coverage, if one or more of the analysts downgrade our stock or comment negatively on our prospects, our stock price would likely decline. If one of more of these analysts cease to cover us or our industry or fails to publish reports about our Company regularly, our Common Stock could lose visibility in the financial markets, which could also cause our stock price or trading volume to decline.

The market price of the Common Stock may be adversely affected by the sale of shares or Warrants by the Company's management or founding stockholders, including the Selling Stockholders listed in the Company's Registration Statement.

Sales of our Common Stock or our Warrants by our officers, directors, employees and founding stockholders could adversely and unpredictably affect the price of those securities. Additionally, the price of Arrowhead's Common Stock and Warrants could be affected even by the potential for sales by these persons. All of our directors and founding shareholders have executed a lock up letter agreement restricting their sales through early January 2005 (the 90 day period following the time our Registration Statement was declared effective.) However we cannot predict the effect that any future sales of our Common Stock or Warrants, or the potential for those sales, will have on our share price.

We may be the subject of securities class action litigation due to future stock price volatility.

In the past, when the market price of a stock has been volatile, holders of that stock have often initiated securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against

us, we could incur substantial costs defending the lawsuit. The lawsuit could also divert the time and attention of our management.

We do not intend to declare dividends on our Common Stock.

We will not distribute cash to our stockholders until and unless we can develop sufficient funds from operations to meet our ongoing needs and implement our business plan. The time frame for that is inherently unpredictable, and you should not plan on it occurring in the near future, if at all.

#### Item 7. Financial Statements.

On January 12, 2004, the Company issued shares of its Common Stock, along with warrants to purchase additional shares of Common Stock, in exchange for all of the issued and outstanding securities of the California corporation. As a result of this transaction, the California corporation became a wholly-owned subsidiary of the Company, and the former shareholders of the California corporation acquired approximately 89% of the Company's Common Stock outstanding immediately thereafter. Because the transaction resulted in a change in control of the Company, it has been accounted for as though the California corporation acquired the Company, through a purchase of the net assets of the Company by the California corporation. Therefore, the financial statements of the Company, a Delaware corporation whose name has been changed to "Arrowhead Research Corporation," are deemed to be those of the California corporation from its inception, and will reflect consolidated operations of the two companies only from and after January 12, 2004. These financial statements, along with the notes thereto and the report of the Company's independent certified public accountant thereon, required to be filed in response to this Item 7 are attached hereto as Exhibits under Item 13 below.

#### Item 8. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

As reported in a Current Report on Form 8-K filed by the Company, on January 7, 2004, the Company's Board of Directors selected a new independent certified public accountant, Kevin G. Breard, CPA, An Accountancy Corporation, to replace the Company's previous accountants, McGladrey & Pullen LLP, in connection with the change in control of the Company resulting from the Share Exchange.

In July 2004, the Board of Directors selected the independent accounting firm of Rose, Snyder & Jacobs (RS&J) to replace Kevin G. Bread CPA, An Accounting Corporation. An 8-K was filed by the company to report the change. There was no preexisting relationship between the Company and RS&J prior to the firm's engagement as the Company's independent accountants.

The opinion of Kevin G. Breard CPA, An Accounting Corporation for the period May 7, 2003 through September 30, 2003 is unqualified.

The opinion of Rose Snyder & Jacobs for the year ended September 30, 2004 is unqualified.

During this 2-year period, there were no disagreements with the former accountants on any matter of accounting principles and practices, financial statement disclosure, or auditing scope or procedure.

#### Item 8A. Controls and Procedures.

As of a date within 90 days of the date of this Annual Report on Form 10-KSB, the principal executive and the financial officer of the Company conducted an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Rule 13a-14 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based upon that evaluation, the principal executive and the financial officer concluded that the Company's disclosure controls and procedures are effective in timely alerting them to material information relating to the Company that is required to be included in its filings with the SEC. There have been no significant changes in the Company's internal controls or in other factors that could significantly affect these controls subsequent to the date this evaluation was carried out.

#### PART III

#### Item 9. Directors and Executive Officers of the Registrant.

All of the officers and directors of the Company were replaced in connection with the Share Exchange. The executive officers and directors of the Company currently are as follows:

Name	Age	Title
R. Bruce Stewart	67	President and Director
Joseph T. Kingsley	59	Chief Financial Officer & Secretary
Edward W. Frykman	68	Director
LeRoy T. Rahn	69	Director
Charles P. McKenney	65	Director

**R. Bruce Stewart** has been President and Chairman of the Board of the Company since January 2004. Mr. Stewart was the Chairman of the Board of the predecessor California corporation since its inception in May 2003 and devoted much of his time from early in 2003 to development of its plan of operations. Mr. Stewart founded Acacia Research Corporation in March 1991, and was employed by Acacia Research Corporation in various capacities until January 2003, serving as its President from inception through January 1997, Chairman until April 2000, and as a senior advisor until January 2003. From August 1977 to March 1991, Mr. Stewart was the President of Annandale Corporation. He also was a licensed principal of Annandale Securities, Inc., a licensed broker-dealer.

Joseph T. (Ted) Kingsley has been the Chief Financial Officer of Arrowhead since September 2004. Mr. Kingsley brings to Arrowhead more than 20 years of executive-level, financial management experience in biotech, commercial, international, and defense-related industries. Prior to joining the Company, from January 2002 to September 2004, he was Chief Financial Officer for Eidogen, Inc. a Pasadena-based company developing computational drug discovery platforms. From March 1997 to January 2002, Mr. Kingsley was Chief Financial Officer for Paracel, an integrated turnkey computer systems provider for the life sciences community that was acquired by Celera Genomics (AMEX:CRA) in June 2000. Mr. Kingsley held similar positions with Pico Products, a publicly-held cable TV product supplier, Kaiser Marquardt, Inc., and Science Applications International Corp. (SAIC), a Fortune 500 government and commercial contractor. Mr. Kingsley is a CPA. He received his B.A. in Economics from Ohio Wesleyan University, and his MBA from Northwestern University.

**Edward W. Frykman** has been an Account Executive with Crowell, Weedon & Co. since 1992. Previously, Mr. Frykman served as Senior Vice President of L.H. Friend & Co. Both Crowell, Weedon & Co. and L.H. Friend & Co. are investment brokerage firms located in Southern California. In addition, Mr. Frykman was a Senior Account Executive with Shearson Lehman Hutton, where he served as the Manager of the Los Angeles Regional Retail Office of E. F. Hutton & Co. Mr. Frykman was a director in the predecessor California corporation since its inception in May 2003 until January 2004, when he became a director of the Company. Mr. Frykman is also a director of Acacia Research Corporation (NASDAQ: ACTG & CBMX), a publicly-held corporation based in Newport Beach, California.

**LeRoy** (Lee) T. Rahn was a partner with the intellectual property law firm of Christie, Parker & Hale from 1968 to 2003, more than 30 years, with a practice focused on assisting clients in protecting their intellectual property through obtaining, maintaining and enforcing patents and other legal rights. He retired from the law firm's partnership in 2003, but remains affiliated with the firm on an "of counsel" basis. He is a former president of the Los Angeles Intellectual Property Association and frequently makes presentations on intellectual property law to legal and trade groups. Prior to becoming an attorney, Mr. Rahn obtained a degree in electrical engineering. Mr. Rahn was a director in the predecessor California corporation from December 2003 to January 2004 when he became a director of the Company.

**Charles P. McKenney** has maintained a government affairs law practice in Pasadena, California since 1989, representing businesses and organizations in their relations with state and local government regarding their obligations under state and local land use and trade practices laws. From 1973 through 1989, he served as Attorney

for Corporate Government Affairs for Sears, Roebuck and Co., helping organize and carry out Sears' western state and local government relations programs. Mr. McKenney has served two terms on the Pasadena, California City Council as well as on several city boards and committees, including three city Charter Reform Task Forces. Mr. McKenney became a director of the Company in March 2004.

Information appearing in the Proxy Statement for the 2005 Annual Meeting under the captions Election of Directors (pages 3 to 6), Executive Officers (page 13), and Compliance with Section 16 of the Securities Exchange Act of 1934 (page 17), is hereby incorporated by reference.

#### Item 10. Executive Compensation.

Information appearing in the Proxy Statement for the 2005 Annual Meeting under the caption Executive Compensation (pages 13 to 18) is hereby incorporated by reference.

#### Item 11. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Information concerning the ownership of the Company's securities by its principal holders and its management is set forth in the Proxy Statement for the 2005 Annual Meeting (pages 12 and 13), and is incorporated herein by reference.

#### Item 12. Exhibits and Reports on Form 8-K.

(a) Financial Statements, Financial Statement Schedules and Exhibits.

The following documents are filed herewith or incorporated herein by reference, as set forth in the Index to Financial Statements appearing on page F-1 and the Index to Exhibits appearing on page 23. As a result of the change of control resulting from the Share Exchange, the financial statements of the registrant are deemed to be the historical financial statements of Arrowhead Research Corporation, the California corporation.

#### (1) Financial Statements

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Consolidated Balance Sheets of Arrowhead Research Corporation and Subsidiaries, September 30, 2004 and 2003.	F-3
Consolidated Statements of Operations of Arrowhead Research Corporation and Subsidiaries for the year ended September 30, 2004, the period from May 7 (inception) through September 30, 2003 and for the period from May 7, 2003 (inception) through September 30, 2004.	F-4
Consolidated Statement of Shareholders' Equity of Arrowhead Research Corporation and Subsidiaries for the period from May 7, 2003 (inception) through September 30, 2004.	F-5
Consolidated Statement of Cash Flows of Arrowhead Research Corporation and Subsidiaries for the year ended September 30, 2004 and the period from May 7 (inception) through September 30, 2003 and for the period from May 7, 2003 (inception) through September 30,	
2004.	F-6
Notes to Consolidated Financial Statements of Arrowhead Research Corporation and subsidiaries.	F-7

#### (2) Financial Statement Schedules

None

(3) Exhibits: Exhibit Number	Document Description
3.1	Certificate of Incorporation of InterActive, Inc., a Delaware company, dated February 8, 2001 (1)
3.2	Certificate of Amendment of Certificate of Incorporation of InterActive Group, Inc., dated January 12, 2004 (effecting, among other things a change in the corporation's name to "Arrowhead Research Corporation"). (2)
3.3	Bylaws (1)
4.1	Registration Rights Agreement dated January 12, 2004 (3)
4.2	Standstill and Registration Rights Agreement dated January 12, 2004 (3)
4.3	Form of Warrant to Purchase Common Stock (4)
10.1	Research Agreement with California Institute of Technology regarding the research of C. Patrick Collier (5)
10.2	Research Agreement with California Institute of Technology regarding the research of Marc Bockrath (5)
10.3	Research Agreement between California Institute of Technology pertaining to research in Harry Atwater's laboratory (6)
10.4	Letter Agreement among the Company, California Institute of Technology and Harry Atwater pertaining to the formation of Aonex Technologies, Inc. (fka Aonex Corporation) (6)
10.5	Letter Agreement among the Company, California Institute of Technology and Michael Roukes pertaining to the formation of Nanotechnica (fka Nanokinetics) (6)
10.6	Series B Stock Purchase Agreement pertaining to acquisition of majority interest in Insert Therapeutics, Inc. (6)
10.7	Consulting Agreement between Insert Therapeutics and Dr. Mark Davis (7)
10.8	Consulting Agreement between Insert Therapeutics and Neologix, Inc. (7)
10.9	Amendment No. 1 to Agreement to Provide Additional Capital between Arrowhead and Insert Therapeutics, Inc. (7)
10.10	Consulting Agreement between Aonex Technologies, Inc. (fka Aonexx Corporation) and Dr. Harry Atwater (7)
10.11	Agreement to Provide Additional Capital between Arrowhead Research and Aonex Technologies, Inc. (7)
10.12**	Copy of the Arrowhead Research Corporation (fka InterActive, Inc.) 2000 Stock Option Plan, the Arrowhead Research Corporation Stock Option Agreement (Incentive Stock Option) and the Arrowhead Research Corporation Stock Option Agreement (Nonstatutory Option). (8)
10.13**	Copy of the Arrowhead Research Corporation 2004 Stock Option Plan. (9)
10.14**	Copy of the Arrowhead Research Corporation Non-employee Director Compensation Policy *
10.15	Series A Stock Purchase Agreement pertaining to acquisition of majority interest in Nanotechnica, Inc.*
10.16	Agreement to Provide Additional Capital between Arrowhead Research and Nanotechnica, Inc.*
21	<ul> <li>Subsidiaries of the Registrant.</li> <li>Aonex Technologies, Inc., a California corporation</li> <li>Insert Therapeutics, Inc., a Delaware corporation</li> <li>Nanotechnica, Inc., a California corporation</li> </ul>
23.1	Consent of Rose, Snyder & Jacobs, LLP, the Company's independent registered public accounting firm*
23.2	Consent of Kevin G. Breard, CPA, an Accountancy Corporation*
31.1	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer*
31.2	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer*
32.1	Section 1350 Certification by Principal Executive Officer*
32.2	Section 1350 Certification by Principal Financial Officer*

<sup>\*</sup> Filed herewith.

- \*\* Indicates compensation plan, contract or arrangement.
- (1) Incorporated by reference from the Schedule 14C filed by registrant on December 22, 2000.
- (2) Incorporated by reference from the Schedule 14C filed by registrant on December 22, 2003.
- (3) Incorporated by reference from the Annual Report on Form 10-KSB for the year ended September 30, 2003, filed by registrant on January 13, 2003.
- (4) Incorporated by reference from the Registration Statement on Form 8-A, filed by registrant on February 23, 2004. and its Amendment No. 1 filed on October 12, 2004.
- (5) Incorporated by reference from the Annual Report on Form 10-KSB/A for the year ended ended September 30, 2003, filed by registrant on July 7, 2004.
- (6) Incorporated by reference from the Quarterly Report on Form 10-QSB/A for the quarter ended March 31, 2004, filed by registrant on July 7, 2004.
- (7) Incorporated by reference from the Quarterly Report on Form 10-QSB for the quarter ended June 30, 2004, filed by registrant on August 16, 2004.
- (8) Incorporated by reference from the Registration Statement on Form S-8, filed by registrant on October 29, 2004.
- (9) Incorporated by reference from annex A to the preliminary Schedule 14C filed by registrant on December 16, 2004.

#### **SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report on Form 10-KSB to be signed on its behalf by the undersigned, thereunto duly authorized, on this  $16^{th}$  day of December 2004.

ARROWHEAD	RESEARCH	$C \cap RP \cap R$	ATION
AKKUWHEAL	, rr., r. a rt r	LURPUR	$A \cap A \cap A \cap A$

By:	/s/ R. BRUCE STEWART
	R. Bruce Stewart

#### POWER OF ATTORNEY

KNOW ALL THESE PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints R. Bruce Stewart and Joseph T. Kingsley and each of them, jointly and severally, his attorneys-in-fact, each with full power of substitution, for him in any and all capacities, to sign any and all amendments to this Report on Form 10-KSB, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each said attorneys-in-fact or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report on Form 10-KSB has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ R. Bruce Stewart	President, Chief Executive Officer and Director (Principal Executive Officer)	December 16, 2004
R. Bruce Stewart	(Emelpa Zaceaure States)	
/s/ JOSEPH T. KINGSLEY	Chief Financial Officer (Principal Financial Officer)	December 16, 2004
Joseph T. Kingsley	(Timelpui Financiai Officer)	
/s/ EDWARD W. FRYKMAN	Director	December 16, 2004
Edward W. Frykman	•	
/s/ LEROY T. RAHN	Director	December 16, 2004
LeRoy T. Rahn		
/s/ Charles P. McKenney	Director	December 16, 2004
Charles P. McKenney	-	

# INDEX TO FINANCIAL STATEMENTS

As a result of the change in control resulting from the stock exchange transaction (the "Share Exchange") with the owners of Arrowhead Research Corporation, a California corporation ("ARC"), the financial statements of the Company are deemed to be the historical financial statements of ARC.

Arrowhead Research Corporation,

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Consolidated Balance Sheets of Arrowhead Research Corporation and subsidiaries, September 30, 2004 and 2003.	F-3
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Notes to Consolidated Financial Statements of Arrowhead Research Corporation and subsidiaries.

#### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Arrowhead Research Corporation Pasadena, California

We have audited the accompanying consolidated balance sheet of Arrowhead Research Corporation (a Delaware corporation) and Subsidiaries as of September 30, 2004 and the related consolidated statements of operations, shareholders' equity and cash flows for the year then ended, and for the period from May 7, 2003 (inception) through September 30, 2004. The consolidated financial statements for the year ended September 30, 2003 were audited by another auditor whose report expressed an unqualified opinion. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with the standards established by the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Arrowhead Research Corporation and Subsidiaries as of September 30, 2004, and the consolidated results of their operations and their cash flows for the year then ended, and for the period from May 7, 2003 (inception) through September 30, 2004 in conformity with accounting principles generally accepted in the United States of America.

Rose, Snyder & Jacobs A Corporation of Certified Public Accountants

Encino, California

November 5, 2004 except for note 10 as to which the date is December 9, 2004

#### **Independent Auditor's Report**

To the Board of Directors Arrowhead Research Corporation Pasadena, California

I have audited the accompanying balance sheet of Arrowhead Research Corporation (A Development Stage Company) as of September 30, 2003 and the related statements of operations and stockholders' equity, and cash flows for the period from May 7, 2003 (inception), to September 30, 2003. These financial statements are the responsibility of the Company's management. My responsibility is to express an opinion on these financial statements based on my audit.

I have conducted my audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that I plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. I believe that my audit provides a reasonable basis for my opinion.

In my opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Arrowhead Research Corporation (A Development Stage Company) as of September 30, 2003, and the results of its operations and its cash flows from May 7, 2003 (inception), to September 30, 2003, in conformity with accounting principles generally accepted in the United States of America.

Kevin G. Breard

Certified Public Accountant

Northridge, California December 23, 2003

+

# Arrowhead Research Corporation ( A Development Stage Company ) Consolidated Balance Sheets

	Septem	er 30
	2004	2003
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 8,552,667	\$1,355,289
Investments at fair market value	487,887	
Grant receivable, net of allowance for doubtful account of \$0	51,835	_
Prepaid research, <i>Note 6</i> .	364,378	158,625
Other prepaid expenses	40,308	_
TOTAL CURRENT ASSETS	9,497,075	1,513,914
PROPERTY & EQUIPMENT		
Computers, office equipment and furniture	134,869	2,115
Research equipment	694,854	_
Software	714	_
Construction in progress	126,438	_
	050.055	D 445
	956,875	2,115
Less: Accumulated depreciation & amortization	(74,829)	(90)
NET PROPERTY & EQUIPMENT	882,046	2,025
OTHER ASSETS		
Restricted cash	50,773	_
Rent deposit	24,618	_
Patents, Note 1	1,062,266	_
Goodwill	399,000	_
TOTAL OTHER ASSETS	1,536,657	_
TOTAL ASSETS	\$11,915,778	\$1,515,939
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable	\$ 540,739	\$ 92,688
Accrued expenses	81,911	800
Payroll liabilities	67,048	2,689
TOTAL CURRENT LIABILITIES	689.698	96,177
	,	96,177
Minority interest	1,777,699	
Commitment and contingencies, <i>Note 6</i>		
SHAREHOLDERS' EQUITY, Note 3	12.642	4.000
Common Stock	13,643	4,680
Preferred componentian	(104.130)	_
Deferred compensation	(194,126)	1 510 220
Additional paid-in capital	12,221,044	1,510,320
Accumulated deficit during the development stage	(2,592,180)	(95,238)
TOTAL SHAREHOLDERS' EQUITY	9,448,381	1,419,762
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$11,915,778	\$1,515,939
TO THE EMPERIES THE STREET PARTY.		

# Arrowhead Research Corporation and Subsidiaries (A Development Stage Company) Consolidated Statement of Operations

	Year ended September 30, 2004	Period from May 7, 2003 (Date of inception) to September 30, 2003	Period from May 7, 2003 (Date of inception) to September 30, 2004	
REVENUE	\$ 196,306	\$ —	\$ 196,306	
OPERATING EXPENSES				
Salaries	626,497	25,000	651,497	
Consulting	630,494	25,000	655,494	
General & administrative expenses	914,850	41,063	955,913	
Research & development	793,354	3,375	796,729	
TOTAL OPERATING EXPENSES	2,965,195	94,438	3,059,633	
OPERATING LOSS	(2,768,889)	(94,438)	(2,863,327)	
OTHER INCOME (EXPENSES)				
Unrealized (loss) in marketable securities	(12,113)	_	(12,113)	
Interest income	33,137	_	33,137	
Minority interests	251,723	_	251,723	
		<del></del>		
TOTAL OTHER INCOME (EXPENSES)	272,747		272,747	
Provision for income taxes	800	800	1,600	
NET LOSS	\$ (2,496,942)	\$ (95,238)	\$(2,592,180)	
Net loss per share	\$ (0.23)	\$ (0.03)		
Weighted average shares outstanding	11,002,094	3,738,750		

# Arrowhead Research Corporation and Subsidiaries (A Development Stage Company) Consolidated Statement of Stockholders Equity Period from May 7, 2003 (Date of inception) to September 30, 2004

		Common Stock		Additional		Accumulated Deficit during		
		Shares	Amount	Paid-in- Capital	Deferred Compensation	the Development Stage	Totals	
Initia	al Issuance of Stock:							
	Common stock & warrants issued for cash @ \$0.001 per unit	3,000,000	\$ 3,000	\$ —	\$ —	\$ —	\$ 3,000	
	Common stock & warrants issued for cash @ \$1.00 per unit	1,680,000	1,680	1,678,320	_	_	1,680,000	
	Stock issuance cost charged to additional paid-in capital	<u> </u>	_	(168,000)	_	_	(168,000)	
	Net loss for period from inception to September 30, 2003	_	_	` <u> </u>	_	(95,238)	(95,238)	
Bala	nce at September 30, 2003	4,680,000	4,680	1,510,320	_	(95,238)	1,419,762	
	Exercise of stock options @ \$0.20 per share	75,000	75	14,925	_	_	15,000	
	Common stock & warrants issued for cash @ \$1.00 per unit	475,000	475	474,525	_	_	475,000	
	Common stock & warrants issued for marketable securities @							
	\$1.00 per unit	500,000	500	499,500	_	_	500,000	
	Stock issuance cost charged to additional paid-in capital	_	_	(96,500)	_	_	(96,500)	
	Common stock and warrants issued for cash @ \$1.50 per unit	6,608,788	6,609	9,906,573	_	_	9,913,182	
	Common stock issued in reverse acquisition	705,529	706	(151,175)	_	_	(150,469)	
	Common stock issued as a gift for \$1.09 per share	150,000	163	162,587	_		162,750	
	Common stock and warrants issued as stock issuance cost @							
	\$1.50 per unit	356,229	356	533,988	_	_	534,344	
	Stock issuance cost charged to additional paid-in capital		_	(991,318)		_	(991,318)	
	Exercise of stock option @ \$0.20 per share	75,000	75	14,925	_	_	15,000	
	Exercise of stock options @ \$1.00 per share	6,000	4.0	5,996	_		6,000	
	Issuance of stock options	_	_	336,698	(336,698)	_	_	
	Amortization of deferred compensation expense		_	_	142,572	_	142,572	
	Net loss for the year ended September 30, 2004	_	_	_	_	(2,496,942)	(2,496,942)	
Bala	nce at September 30, 2004	13,631,546	\$13,643	\$12,221,044	\$ (194,126)	\$ (2,592,180)	\$ 9,448,381	

# Arrowhead Research Corporation and Subsidiaries ( A Development Stage Company ) Consolidated Statements of Cash Flows

	Year ended September 30, 2004		Year ended September 30, 2003		Period from May 7, 2003 ( Date of inception) to September 30, 2004	
CASH FLOWS FROM OPERATING ACTIVITIES:						
Net Loss	\$	(2,496,942)	\$	(95,238)	\$	(2,592,180)
Adjustment to reconcile net loss to net cash used in operating activities						_
Unrealized loss on investment		12,113				12,113.00
Stock issued as gift to Caltech		162,750				162,750.00
Compensation expense related to stock option issuance		142,572				142,572.00
Depreciation		74,740		90		74,830.00
Minority interests		(251,723)		_		(251,723.00)
Decrease/increase in:						
Receivables		(51,835)		_		(51,835.00)
Prepaid research expense		(205,753)		(158,625)		(364,378.00)
Other prepaid expenses		(40,308)				(40,308.00)
Deposits		(14,660)		_		(14,660.00)
Accounts payable		248,160		92,688		340,848.00
Accrued expenses		39,422		800		40,222.00
Other liabilities		67,048		2,689		69,737.00
NET CASH USED IN OPERATING ACTIVITIES		(2,314,416)		(157,596)		(2,472,012)
CASH FLOWS FROM INVESTING ACTIVITIES:						
Purchase of property & equipment		(665,465)		(2,115)		(667,580)
Cash paid for interest in Nanotechnica		(4,000,000)		<u> </u>		(4,000,000)
Cash paid for interest in Aonex		(2,000,000)		_		(2,000,000)
Cash paid for interest in Insert		(1,000,000)		_		(1,000,000)
Cash obtained from interest in Nanotechnica		4,000,000		_		4,000,000
Cash obtained from interest in Aonex		2,001,250		_		2,001,250
Cash obtained from interest in Insert		1,304,594		_		1,304,594
NET CASH USED IN INVESTING ACTIVITIES		(359,621)		(2,115)		(361,736)
CASH FLOWS FROM FINANCING ACTIVITIES:						
Proceeds from issuance of common stock & warrants, net		9,871,415		1,515,000		11,386,415
NET CASH PROVIDED BY FINANCING ACTIVITIES		9,871,415		1,515,000		11,386,415
NET INCREASE (DECREASE) IN CASH		T 40T 2T0		4.255.200	_	0.550.665
NET INCREASE (DECREASE) IN CASH		7,197,378		1,355,289		8,552,667
CASH AT BEGINNING OF PERIOD		1,355,289				
CASH AT END OF PERIOD	\$	8,552,667	\$	1,355,289	\$	8,552,667
Supplementary disclosures:						
Interest paid	\$	<u> </u>	\$	_	\$	_
Income tax paid	\$	800.00	\$	800.00	\$	1,600.00

#### NOTE 1: ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

#### General

On January 12, 2004, Arrowhead Research Corporation ("Arrowhead" or the Company) (formerly known as InterActive Group, Inc.) issued shares of common stock and warrants in exchange for all the issued and outstanding securities of Arrowhead Research Corporation, a California corporation (the "California corporation) (the "Stock Exchange"). As a result of this transaction, the California corporation became a wholly-owned subsidiary of the Company and the former shareholders of the California corporation acquired 89% of the company's common stock outstanding immediately thereafter. In addition, all of the officers and directors of the company prior to the transaction were replaced by designees of the former shareholders of the California corporation and the company's name was changed to "Arrowhead Research Corporation."

Arrowhead has been operating under its new management since January 2004, and, at this time, is a development-stage company. Our primary business objective is to commercialize pioneering, breakthrough products in nanotechnology. Our business model is based on three strategic components:

- Arrowhead provides capital to entities engaged in development and commercialization of nanoscale materials, devices, and systems. In return for early-stage funding, Arrowhead acquires a majority interest in these entities.
- Arrowhead sponsors nanoscience research and development by directly funding research at universities. In return for funding, Arrowhead has
  historically obtained exclusive rights to license and commercialize technologies generated through the funded research.
- Arrowhead seeks to leverage other valuable nanotechnology through licensing and sublicensing agreements with third parties.

Arrowhead's business model is designed to provide its subsidiaries and sponsored scientists with financial, administrative, corporate and strategic resources. This business model allows each research team to maintain focus on specific technologies and each management team to focus on specific markets, increasing the likelihood of successful technological development and commercialization.

Arrowhead is incorporated in Delaware and its principal executive offices are located in Pasadena, California.

The company had no revenue from product sales in FY 2004 or FY 2003.

Summary of Significant Accounting Policies

Basis of Presentation - The presentation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Use of Estimates - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the accompanying financial statements. Significant estimates made in preparing these financial statements include the allowance for doubtful accounts, deferred tax asset valuation allowance and useful lives for depreciable and amortizable assets. Actual results could differ from those estimates.

Principles of Consolidation - The consolidated financial statements include the accounts of the Company and its subsidiaries, Aonex Technologies, Inc., Insert Therapeutics, Inc. and Nanotechnica, Inc. All significant intercompany accounts and transactions are eliminated in consolidation and Minority interests were accounted for in the consolidated income statement and the balance sheet.

Cash and Cash Equivalents - For purposes relating to the statement of cash flows, the Company considers all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

Restricted Cash - Restricted cash in the amount of \$50,773 at September 30, 2004 is to secure a facility lease, which has expired and is continuing on a month-to-month basis.

Concentration of Credit Risk - The Company maintains four bank accounts at three separate financial institutions. These accounts are insured by the Federal Deposit Insurance Corporation (FDIC), up to \$100,000. The Company also maintained one money market account at a brokerage firm. This account is not insured by the FDIC. At September 30, 2004, the Company had deposits at these financial institutions with uninsured cash balances totaling \$8,203,440. The Company has not experienced any losses in such accounts and management believes it places its cash on deposit with financial institutions which are financially stable.

Marketable Securities - The Company's securities investments consist of corporate stocks, and are held principally for the purpose of selling in the near term and are classified as trading securities. Trading securities are recorded at fair value on the balance sheet in current assets, with the change in fair value during the period reflected in earnings.

Property and Equipment - Property and equipment are recorded at cost. Depreciation of property and equipment is recorded on the straight-line method over the respective useful lives of the assets ranging from 3 to 7 years. Leasehold improvements are fully amortized.

Intellectual Property - At September 30, 2004, intellectual property consists of patents (original cost of \$1,062,266) acquired in FY 2004. The Patents are being amortized over their remaining statutory terms, which vary from twelve to twenty years. All but one of the issued patents are licensed to Nanotechnica which started operations in September 2004, as such, the amortization of the patent cost is immaterial for FY 2004.

Goodwill - Goodwill represents the excess of cost over the value of net assets of businesses acquired pursuant to Statement of Financial Accounting Standards ("SFAS") No. 141, "Business Combinations" and is carried at cost unless write-downs for impairment are required. The Company evaluates the carrying value of goodwill on an annual basis and whenever events and changes in circumstances indicate that the carrying amount may not be recoverable, adjustment is then made. To date, no such impairment has been recorded.

Revenue Recognition - Insert Therapeutics was awarded a grant of \$236,441 for the period from July 2003 through June 2004 and \$244,780 for the period from July 2004 through June 2005 and a second grant of \$292,940 for the period from April 2004 through March 2005 and \$300,000 for the period from April 2005 through March 2006. These grants are recognized as revenue as the funds are expended in accordance with the terms of the grant, and since its acquisition by Arrowhead Research, Insert Therapeutics recognized revenue from the grant in the amount of \$37,200 for the grant for the period from July 2003 through June 2004, and \$159,106 for the period from July 2004 through June 2005.

Earnings per Share - Basic earnings (loss) per share is computed using the weighted-average number of common shares outstanding during the period. Diluted earnings (loss) per share is computed using the weighted-average number of common shares and dilutive potential common shares outstanding during the period. Dilutive potential common shares primarily consist of employee stock options and warrants. For the year ended September 30, 2004 and for the period from May 7, 2003 through September 30, 2003, their effect is anti-dilutive.

Stock-Based Compensation - Arrowhead has a Stock Option Plan which provides for the granting of non-qualified Stock Options or incentive Stock Options. Under the Plan, 3,000,000 shares of Arrowhead's common stock are reserved for issuance upon exercise of Stock Options or Stock Purchase Warrants that may be granted by the Board of Directors to employees, consultants and others expected to provide significant services to Arrowhead.

Arrowhead accounts for employee stock option grants in accordance with Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees and related interpretations (APB 25), and has adopted the "disclosure only" alternative described in Statement of Financial Accounting Standards (SFAS) No. 123, Accounting for Stock-Based Compensation, amended by SFAS No. 148 Accounting for Stock Based Compensation-Transition and Disclosure.

Going Concern: Need for Additional Capital to Meet Commitments - The Company is generating no significant revenue, and its operating losses and negative cash flows from operations raised substantial doubts about its ability to continue as a going concern. The accompanying financial statements do not reflect any adjustments that might result if the Company is unable to continue as a going concern. At September 30, 2004, the Company had approximately \$8.5 million in cash to fund operations. The Company's commitments to fund Subsidiary operations in FY 2005 exceed the cash on hand at September 30, 2004. The Company has the right not to fund one or more Subsidiaries in which case it would forfeit a major portion of its equity in the Subsidiary. However, the Company can negotiate amendments to the Funding Agreements with one or more of the subsidiaries to delay or reduce the funding. See Note 10. The Company will need to raise additional capital to meet the future cash commitments to the subsidiaries for the second half of 2005. The Company intends to do so beginning in the second quarter of FY 2005. If the Company fails to raise the additional capital required, the Company may have to forfeit its investments in one or more subsidiaries, and/or cease its operations.

Recently Issued Accounting Pronouncements - In July 2002, the FASB issued SFAS No. 146, "Accounting for Exit or Disposal Activities." The provisions of this standard apply to disposal activities initiated after December 31, 2002. The adoption of this standard did not have a material impact on the financial statements.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation - Transition and Disclosure," an amendment of SFAS No. 123. SFAS No. 148 provides alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, SFAS No. 148 amends the disclosure requirements of SFAS No. 123 to require more prominent and more frequent disclosures in financial statements about the effects of stock-based compensation. This statement is effective for financial statements for fiscal years ending after December 15, 2002. (See Note 7. Stock Options below)

In January 2003, the FASB issued FASB Interpretation No. 46 (FIN46) "Consolidation of Variable Interest Entities, and Interpretation of ARB 51." This Interpretation addresses consolidation by business enterprises of certain variable interest entities (VIEs). The Interpretation as amended is effective immediately for all enterprises with interests in VIEs created after January 31, 2003. In December 2003, the FASB issued a revised version of FIN 46 (FIN 46R), which clarified the provisions of FIN46 by addressing implementation issues. FIN 46R must be applied to all entities subject to the Interpretation as of the first interim quarter ending after March 15, 2004. The adoption of this Interpretation did not impact the financial statements.

In April 2003, the FASB issued SFAS No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." SFAS No. 149 amends and clarifies accounting and reporting for derivative instruments and hedging activities under SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." SFAS No. 149 is effective for derivative instruments and hedging activities entered into or modified after June 30, 2003, except for certain forward purchase and sale securities. For these forward purchase and sale securities, SFAS No. 149 is

effective for both new and existing securities after June 30, 2003. Management does not expect adoption of SFAS No. 149 to have a material impact on the Company's results, financial position, or cash flows.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." SFAS No. 150 establishes standards for how an issuer classifies and measures in its statement of financial position certain financial instruments with characteristics of both liabilities and equity. In accordance with the standard, financial instruments that embody obligations for the issuer are required to be classified as liabilities. SFAS No. 150 will be effective for financial instruments entered into or modified after May 31, 2003 and otherwise will be effective at the beginning of the first interim period beginning after June 15, 2003. The adoption of SFAS No. 150 Interpretation did not impact the financial statements.

In December 2003, the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the Act) was signed into law. The Act introduced a prescription drug benefit under Medicare Part D and a federal subsidy to sponsors of retirement health care plans that provide a benefit that is at least actuarially equivalent to Medicare Part D. In May 2004, the FASB issued FSP FAS 106-2, which provides accounting guidance to sponsors of postretirement health care plans that are impacted by the Act. The FSP is effective for interim or annual periods beginning after June 15, 2004. Since the company does not offer postretirement health care plans, the adoption of this Act did not impact the financial statements.

#### NOTE 2: BASIS OF CONSOLIDATION

The FY 2004 consolidated financial statements include the accounts of the Company and its Subsidiaries, Aonex Technologies, Inc., Insert Therapeutics, Inc. and Nanotechnica, Inc. All significant intercompany accounts and transactions are eliminated in consolidation and minority interests were accounted for in the 2004 consolidated income statement and the balance sheet.

The "Share Exchange" resulted in a change of control of the Company and has been accounted for as a "reverse acquisition", as though Arrowhead Research, the California corporation acquired the Company through a purchase of the net assets of the Company with no goodwill being recognized. Therefore, the financial statements of the Company are deemed to be those of the California corporation from its inception on May 7, 2003 and reflect the consolidated assets and operations of the two entities only from and after January 12, 2004.

On April 20, 2004, Arrowhead acquired 1,000,000 shares of Series A Preferred stock in a newly-formed entity, Aonex Technologies, Inc. ("Aonex"). The 1,000,000 shares of Series A Preferred stock represent 80% of the outstanding, voting shares of Aonex and allows Arrowhead to elect a majority of the Board of Directors of Aonex. This purchase created goodwill in the amount of \$399,000, substantiated by advanced technology contributed by the minority shareholders.

On June 4, 2004, Arrowhead purchased 24,496,553 shares of Series B Preferred Stock of Insert Therapeutics, Inc. ("Insert"), a Pasadena, California based company. This Series B Preferred Stock represents 62% of the voting securities of Insert and allows Arrowhead to elect a majority of the Board of Directors of Insert.

On August 6, 2004 and September 22, 2004, the Company invested a total of \$4 million in a newly-formed entity, Nanotechnica, Inc. Nanotechnica has licensed the exclusive rights to a broad suite of intellectual property related to nanotechnology and microfluidics technology developed at Caltech. The Company owns approximately 74% of Nanotechnica and maintains a right to appoint a majority to the Board of Directors.

The financial statements include the accounts of Aonex from the date of its acquisition, April 20, 2004, the accounts of Insert from its date of acquisition, June 4, 2004, and the accounts of Nanotechnica from the date the start of operations, September 10, 2004. All intercompany accounts have been eliminated in the consolidation.

### NOTE 3: SHAREHOLDERS' EQUITY

Arrowhead is authorized to issue up to 50,000,000 shares, 0.001 par value, of common stock and 10,000,000 shares of preferred stock. At September 30, 2004, 13,631,546 shares of common stock and warrants to purchase 13,837,748 shares of common stock were outstanding. An additional 13,837,748 shares are reserved for issuance upon exercise of the outstanding common stock purchase warrants and 3,000,000 shares are reserved under Arrowhead's 2000 Stock Option Plan.

In connection with the formation of the company, two private placements of common stock, and the debt reduction program of InterActive Group, Inc., Arrowhead issued 13,837,748 common stock purchase warrants. Each warrant entitles the holder to purchase one share of common stock at a price of \$1.50 at any time following issuance and prior to June 30, 2013, on which date all unexercised warrants will expire. The warrants are redeemable by Arrowhead at any time, upon 30 days prior written notice, provided that a public market for the underlying shares of common stock then exists and that the closing bid price for a share of Arrowhead's common stock for 20 consecutive trading days, ending not more than 15 days prior to the date of the redemption notice, equals or exceeds \$3.00 per share. Holders will be required to exercise their warrants within 30 days or accept the \$.001 per warrant redemption price.

The following table summarizes information about the common stock purchase warrants:

Exercise Price	Number of Warrants Outstanding	Weighted Average Remaining Life in Years	Weighted Average Exercise Price
\$1.50	13,837,748	9.1	\$1.50

In May 2003, the Company issued 3,000,000 shares of common stock at par value and warrants to purchase 3,000,000 shares of common stock at an exercise price of \$1.50. In October 2003, the Company completed a private placement of units at \$1.00 per unit of 2,645,000 shares of common stock and warrants to purchase 2,645,000 shares of common stock at an exercise price of \$1.50. Because it spanned two quarters, this private placement was closed in two steps: 1,680,000 units were issued prior to September 30, 2003 and 965,000 units after September 30, 2003. In addition, the Company issued 10,000 shares of common stock and warrants to purchase 264,500 shares of common stock as finders fees. In January 2004, in connection with the debt reduction program with InterActive, Inc., the Company issued 705,529 shares and warrants to purchase 658,583 shares of common stock. Also, in January 2004, the Company completed a private placement of units at \$1.50 per unit of 6,608,788 shares of common stock and warrants to purchase 6,608,788 shares of common stock at \$1.50. As part of this closing, the Company issued 356,229 shares of common stock and warrants to purchase 660,877 shares of common stock as finders fees. The Company also issued 150,000 shares of common stock to Caltech in 2004 as a contribution to that university and issued 156,000 shares of common stock in conjunction with the exercise of non-employee stock options.

# NOTE 4: LEASES

On May 24, 2004, Arrowhead entered into a lease agreement for approximately 3,500 square feet of office space at 1118 East Green Street, Pasadena, CA 91106. The lease commenced on June 1, 2004 and expires on November 30.

2005. The rental rate is \$6,125 for June 1, 2004 through May 31, 2005 and \$6,300 for June 1, 2005 through November 30, 2005.

On June 15, 2004, Aonex entered into a lease agreement for approximately 4,006 square feet of combined office and lab space in Pasadena, California. The lease commenced on July 1, 2004 and expires on June 30, 2006. The rental rate is \$6,009 per month until July 1, 2005, at which time it increases to \$6,810 per month.

On December 27, 2000, Insert Therapeutics entered into a lease agreement for a approximately 7,000 square feet of combined lab and office space in Pasadena, California. The lease expired on April 30, 2003, but Insert continues to occupy the space on a month to month basis at a cost of \$10,543 per month.

At September 30, 2004, Arrowhead, Aonex and Insert had operating leases for copier equipment. The lease expense for the copiers ranges from \$267 to \$500 per month depending on the functionality of the copiers. Subsequent to September 30, 2004, Insert signed a new lease for a copier. The equipment lease summary below includes this new lease. There are no other operating leases.

At September 30, 2004, the future minimum commitments remaining under the leases are as follows:

Year ending September 30	Faci	Facilities Leases		<b>Equipment Leases</b>	
			-		
2005	\$	148,712	\$	17,007	
2006	\$	73,892	\$	17,024	
2007 & beyond			\$	19,760	

The total rent expense for the years ended September 30, 2004 and 2003 and the period from May 7, 2003 (date of inception) to September 30, 2004 was \$ 83,829, \$2,733, and \$ 86,532 respectively.

### **NOTE 5: SUBSIDIARIES**

On April 20, 2004, Arrowhead finalized a purchase of 1,000,000 shares of voting, newly-issued Series A Preferred Stock of newly formed Aonex Technologies, Inc., representing 80% of the voting securities of Aonex, for \$2,000,000 paid on the closing date. In conjunction with the stock sale, Arrowhead Research entered into a related Agreement to Provide Additional Capital (See Note 6), under which, if Aonex meets certain milestones and Arrowhead elects not to provide additional capital, Arrowhead would forfeit a proportionate percentage of stock. Aonex is seeking to commercialize a method for transferring nano-layers of expensive semiconductor materials and oxides onto low-cost substrates with no adhesives and with controlled stress. The wafers developed through the Aonex process could reduce manufacturing costs and improve performance for select device applications including LEDs, high power amplifiers, and high efficiency solar cells. The Balance Sheet of Aonex consisted of Cash and Stockholders Equity of \$2,001,250 at the April 20, 2004 acquisition date.

On June 4, 2004, Arrowhead finalized a purchase of 24,496,553 shares of voting, newly-issued Series B Preferred Stock of Insert Therapeutics, Inc., representing 62% of the voting securities of Insert, for \$1,000,000 paid on the closing date. In conjunction with the stock sale, Arrowhead Research entered into a related Agreement to Provide Additional Capital (See Note 6), under which, if Insert meets certain milestones and Arrowhead elects not to provide additional capital, Arrowhead would forfeit a proportionate percentage of stock. Insert has expanded and leveraged its platform technology, CyclosertTM, through an internal small-molecule drug delivery development program, a gene-therapy collaboration with San Diego-based Canji, Inc., a subsidiary of Schering-Plough, and grants in both areas from the National Cancer Institute. Insert has designed a novel class of nanoscale cyclodextrin polymers that incorporate optimal properties for intracellular systemic delivery of a broad range of therapeutics.

The following is the summary balance sheet of Insert at the June 4, 2004 acquisition date:

Cash	\$1,304,594
Restricted cash	50,773
Fixed assets	250,296
Other assets	9,958
Total liabilities	\$ 48,715
Stockholders Equity	\$1,566,906

The following summarizes pro forma information, assuming the acquisition had occurred on October 1, 2003:

	Twelve months ended September 30, 2004 (unaudited)	
Revenue	\$	268,281
Net loss	(	(\$3,132,555)
Loss per share		(\$0.28)

On April 21, 2004, Arrowhead entered into a letter agreement with Caltech and Michael Roukes to form a company, Nanotechnica, Inc., to further develop and commercialize a portfolio of intellectual property that was developed by Dr. Roukes. Nanotechnica was incorporated on June 24, 2004, and Arrowhead funded Nanotechnica with \$2,000,000 on August 6, 2004 in anticipation of finalizing the purchase of 5,000,000 shares of voting, newly issued Series A Preferred Stock. The closing was on September 10, 2004. Included in the closing was the addition of a additional license agreement with Caltech granting Nanotechnica exclusive rights to a portfolio of intellectual property developed by Dr. Yi Chung Tai and his group at Caltech. Also, at the closing Arrowhead agreed to early funding of \$2,000,000 which was done on September 22, 2004. The 5,000,000 shares of Series A Preferred stock represents 74% of the outstanding voting securities of Nanotechnica. Nanotechnica aims to establish capabilities for manufacturing a variety of nanoscale devices and systems. In the near term, Nanotechnica is pursuing the development of several simple, early-stage products such as scanning probe tip and integrated microfluidic chips. In the more distant future, Nanotechnica plans to develop more sophisticated products such as devices for real time imaging of cellular events and capabilities for magnetic resonance force microscopy. The Balance Sheet of Nanotechnica consisted of Cash and Shareholders Equity of \$2,000,000 at the September 10, 2004 acquisition date on August 6, 2004. The Cash and Shareholders Equity was increased to \$4,000,000 on September 22, 2004 as a condition of the close which took place on September 10, 2004.

### NOTE 6: COMMITMENTS AND CONTINGENCIES - SUBSIDIARIES AND SPONSORED RESEARCH

### **Subsidiaries**

Arrowhead Research operates three majority-owned Subsidiaries. The following table summarizes the terms of capital contributions that may be provided by Arrowhead:

Subsidiary	Amount subject to agreements to provide additional capital	Estimated time period for additional capital contributions
Aonex	\$ 3,000,000	4-24 months
Insert	\$ 4,000,000	*
Nanotechnica	\$ 16,000,000	5-18 months

<sup>\*</sup> Arrowhead committed to funding Insert with an additional \$1,000,000 by December 1, 2004. However, Insert management deferred the request for this capital until the second quarter of FY 2005. Additional future capital contributions to Insert will depend on certain FDA approvals, the timing of which are unknown and cannot be estimated.

In each case, Arrowhead provided capital in exchange for a majority-interest in the subsidiary and the right to appoint a majority of the Board of Directors. Arrowhead may elect to provide additional capital to each subsidiary or to forfeit a specified portion of its interest. The following is a summary of the terms of the initial additional capitalization for each subsidiary:

Subsidiary	Initial Capitalization	Potential Additional Capitalization	% interest not subject to forfeiture
Aonex	\$ 2,000,000	\$ 3,000,000(1)	20%
Insert	\$ 1,000,000	\$ 4,000,000(2)	20%
Nanotechnica	\$ 4,000,000	\$ 16,000,000(3)	20%

Arrowhead may provide additional capital over a two year period if Aonex meets certain milestones. If Aonex fails to meet the agreed to milestones, Arrowhead would not forfeit ownership interest even if Arrowhead elected not to provide additional capital.

Arrowhead may provide additional capital of \$1,000,000 early in 2005. Two further contributions of \$1,500,000 may be made upon commencement of the Phase I and Phase II clinical trials of the Cyclosert-camptothecin conjugate. If Insert does not commence clinical trials, Arrowhead would not forfeit ownership interest even if Arrowhead elected not to provide additional capital.

Arrowhead may provide additional capital early in 2005 or delay funding by mutual agreement. If Arrowhead fails to provide the additional capital or obtain agreement to delay, a portion of its interest in Nanotechnica would be forfeited. See Note 10.

### **Sponsored Research Agreements**

The terms of three sponsored research agreements between Arrowhead Research and the California Institute of Technology are summarized in the following table:

Research Project	Period covered	Total estimated project cost	Annual Cost	Amount paid to date	paid Amt as Sep 30, 2004
Research Tools	Oct. 1, 2003-Sept. 30, 2008	\$1,288,766*	\$ 263,218*	\$ 499,112	\$ 40,500
(Dr. C. Patrick Collier)	(5 years)				
Nanotubes	Jan. 1, 2004 -Dec. 31, 2008	\$ 810,000	\$ 162,000	\$ 162,000	\$ 60,660
(Dr. Marc Bockrath)	(4 years)				
Nanofilms	Jan. 2, 2004 -Dec. 31, 2008	\$ 870,793	\$ 242,640	\$ 242,640	\$ 263,218
(Dr. Harry Atwater)	(4 years)				

On December 7, 2004 Arrowhead agreed to provide additional funding for Dr. Collier's research for the remaining four years of the research agreement. The annual estimated cost was increased to \$280,292 for the second year and \$292,540 for the third through the fifth year. The total estimated project cost was increased to \$1.393,806. See Note 10.

The terms of each agreement call for Arrowhead to make annual payments, as indicated above, to subsidize all direct and indirect costs incurred in the performance of the research, not to exceed total estimated project cost. If any of these agreements are extended, the dollar value of costs that will be reimbursed may be modified by mutual agreement to cover additional work performed during the extension. Each research agreement is terminable on 60-days written notice with an obligation to satisfy outstanding obligations at the time of cancellation.

As of September 30, 2004, the Company had advanced Caltech a total \$903,752 for research and development costs under these research agreements. These costs are amortized over the time period covered above and consist primarily of technology development and application research. Research expense related to these costs was \$539,374 for the year ended September 30, 2004. Prepaid research amounted to \$364,378 at September 30, 2004.

### **NOTE 7. STOCK OPTIONS**

The Company has a 2000 Equity Incentive Plan for employees, directors and consultants covering 3,000,000 of common stock. The plan provides for Non Qualified Stock Options (NSO's) and Incentive Stock Options (ISO)'s. To date the Company has only granted NSO's. Under the terms of the plan, the purchase price of the shares for NSO's must be no less than 85% of market at the date of grant.

The following tables summarize information about stock options:

			Number of Options Outstanding	Weighted- Average Exercise Price Per Share
Balance at May 7, 2003			_	
Granted			150,000	0.20
Canceled			_	_
Exercised				
Balance at September 30, 2003			150,000	0.20
Granted			1,570,000	1.00
Canceled			(25,000)	1.00
Exercised			(156,000)	0.23
Balance at September 30, 2004			1,539,000	1.00
Exercisable at September 30, 2004			307,000	\$ 1.00
Exercise Price	Number of Options	Weighted Average Remaining Life in Years	Weighted Av Exercise Pi	erage ice
\$1.00	1,539,000	9.5	\$	1.00

At September 30, 2004, there were 1,305,000 options available for future grants.

The fair value of the options granted during the year ended September 30,2004 is estimated at \$612,507. The fair value of these options was estimated at the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions for the year ended September 30, 2004: dividend yield of 0%, expected volatility of 30%, risk-free interest rate of 3.36%, and expected life of five years. The weighted-average fair value of options granted during the year ended September 30, 2004 was \$0.39, and the weighted-average exercise price was \$1.00.

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options, which do not have vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

The Company has adopted the disclosure provisions of SFAS No. 123. It applies APB 25 and related interpretations in accounting for stock options granted to employees and to non-employees. The expense booked in relationship to options granted to employees and non-employees during Fiscal 2004 was \$142,572.

If the Company had elected to recognize compensation expense based upon the fair value at the grant date for awards under this plan consistent with the methodology prescribed by SFAS No. 123, the Company's loss would have been increased by \$33,081 and the loss per share would have increased by less than one cent per share.

	2004	2003
Net Loss as reported	(\$2,496,948)	(\$95,238)
Add: Stock-based compensation expense included in reported net loss	142,572	
Deduct: Total stock-based compensation Expense determined under Fair value based method for all awards	(175,653)	_
Pro forma	(\$2,530,029	(\$95,238)
Basic Loss per share		
As reported	(\$0.23)	(\$0.03)
Pro forma	(\$0.23)	(\$0.03)

#### **NOTE 8. INCOME TAXES**

The Company utilizes SFAS No. 109, "Accounting for Income Taxes," which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns.

Under this method, deferred income taxes are recognized for the tax consequences in future years of differences between the tax bases of assets and liabilities and their financial reporting amounts at each year-end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized. The provision for income taxes represents the tax payable for the period and the change during the period in deferred tax assets and liabilities.

During the years ended September 30, 2004 and 2003, the company had a consolidated loss of \$2,496,948 and \$95,238 respectively. The losses result in a deferred income tax benefit of approximately \$950,000 for 2004 and \$37,000 for 2003. Since the Company is a development stage company, management has chosen to take a 100% valuation allowance against the tax benefit until such time as management believes that its projections of future profits as well as expected future tax rates make the realization of these deferred tax assets more-likely-than-not. Significant judgment is required in the evaluation of deferred tax benefits and differences in future results from our estimates could result in material differences in the realization of these assets.

### NOTE 9. RELATED PARTY TRANSACTIONS

James M. Phillips, Jr., director and secretary of Arrowhead was paid a monthly retainer of \$4,500 per month for legal services. Mr. Phillips retired and resigned from all positions with Arrowhead, including his position as a director in August 2004. For the year ended September 30, 2004, Mr. Phillips was paid a total of \$51,833 under this arrangement.

Mr. Robert Stewart acted on behalf of the Company in connection with its private placement of securities in January 2004. In connection with this work, Mr. Robert Stewart received approximately \$130,550 and warrants to purchase 87,033 shares at an exercise price of \$1.50s from the Company. Mr. Robert Stewart is the son of R. Bruce Stewart, Arrowhead's President and Chief Executive Officer.

### NOTE 10: SUBSEQUENT EVENTS

On December 1, 2004, the Board of Directors adopted, subject to stockholder approval, an amendment to the Company's Certificate of Incorporation to increase the number of authorized shares of the Company to a total of 75,000,000 shares (the "Amendment"). The authorized shares of the Company, prior to the approval of the Amendment, consisted of 60,000,000 shares, consisting of 50,000,000 shares of authorized common stock and 10,000,000 authorized preferred stock. After giving effect to the Amendment, the Company will have a total of 75,000,000 authorized shares, consisting of 70,000,000 shares of authorized common stock and 5,000,000 shares of authorized preferred stock.

On December 1, 2004, the Board of Directors approved the 2004 Equity Incentive Plan (the "2004 Incentive Plan") pursuant to which an aggregate of 3,000,000 shares of the Company's common stock were reserved for issuance to employees, directors, consultants and key advisors of the Company and its Subsidiaries, subject to stockholder approval at the 2004 Annual Meeting. The 2004 Incentive Plan is intended to replace the Company's existing 2000 Option Plan. The 2004 Incentive Plan was adopted to ensure that the Company continues to be able to give appropriate equity incentives to its key employees, directors, consultants and key advisors and that, to this end, a sufficient number of shares of the Company's common stock is available for awards to attract, retain and motivate selected participants with outstanding experience and ability. If the 2004 Incentive Plan is approved by the Stockholders, the Company will not issue any additional options under the 2000 Option Plan.

On December 1, 2004, Insert had sufficient cash to fund operations and agreed that the December 1, 2004 \$1 million cash commitment be delayed until the second or third quarter of FY 2005. See Note 6.

On December 7, 2004, Arrowhead agreed to provide additional funding for Dr. Collier's research for the remaining four years of the research agreement. The annual estimated cost was increased to \$280,292 for the second year and \$292,540 for the third through the fifth year. The total estimated project cost was increased to \$1,393,806. See Note 6.

On December 1, 2004, Nanotechnica had sufficient cash to fund operations and agreed that the January 1, 2005 \$9 million cash commitment be delayed until March 1, 2005, See Note 6.

# NOTE 11: SEGMENT INFORMATION

Industry Segment Data

The Company is still in the development stage, and no product revenues have been earned.

Geographic Area Data

No product revenues have been earned.

### ARROWHEAD RESEARCH CORPORATION

Compensation Policy for Non-Employee Directors

(October 1, 2004)

This policy governs the compensation of non-employee directors of Arrowhead Research Corporation (the "<u>Company</u>"). For purposes of this policy, a "<u>non-employee director</u>" means a director who (i) is not employed as an officer or other employee of the Company or any of its subsidiaries and (ii) does not receive more than \$60,000 in compensation, directly or indirectly, in the relevant year from the Company or any of its subsidiaries for services as a consultant or in any other capacity other than as a director.

#### I. Board Fees.

- A. <u>Annual Retainer</u>. Non-employee directors will receive an annual retainer of \$4,000 per year provided the director attends at least 75% of the regular meetings of the Board. Attendance may be in person or by telephone, but attendance in person is encouraged. The Company will pay the retainer in quarterly installments of \$1,000. To the extent the Company's Chairman of the Board is a non-employee director, he or she will receive an annual retainer of \$6,000 per year.
- B. <u>Committee Service</u>. The compensation for service on committees of the Board will consist entirely of stock option awards as specified below in Section II(C).

### II. Stock Option Awards

- A. <u>Initial Grants</u>. Non-employee directors will receive a stock option grant of 10,000 shares of common stock upon their initial election or appointment to the Board. The exercise price will be the closing price of the Company's common stock on the date of their appointment or election, as applicable. These options vest on the anniversary of the grant.,
- B. <u>Annual Service Grants</u>. Non-employee directors (other than the Chairman of the Board) who have served for at least six months will receive an annual stock option grant of 10,000 shares of common stock on the date of each annual meeting of stockholders at which they are re-elected. These subsequent options vest at the rate of fifty percent (50%) of the shares on each anniversary of the date of grant. The Chairman of the Board will receive an annual stock option grant of 15,000 shares of common stock on the same terms. The exercise price for the annual option grants will be the closing price of the common stock on the date of the annual stockholder meeting.
- C. <u>Grant Date and Duration</u>. Unless otherwise specified in this policy, all stock options awarded to non-employee directors under this policy will (1) be non-qualified stock options, (2) have an effective grant date that is the same as the date used to determine the exercise price, and (3) have a duration of ten years from the date of grant.

### III. Expense Reimbursement

Non-employee directors are entitled to reimbursement for all reasonable and customary out of pocket and travel expenses incurred in the normal course of Company business.

### IV. Administration and Interpretation

The Board will have complete discretion to resolve any questions relating to the administration or interpretation of this policy, and their decision will be final and binding on all non-employee directors. Unless otherwise required by the context, all references in this policy to a "year" refer to the year between annual stockholder meetings.

### V. Amendments

The Board has adopted this policy based on the business and economic conditions in existence at the time of adoption and intends to periodically review the policy in light of changes in those conditions. Therefore, the Board reserves the right to amend this policy at any time and in any manner that it deems necessary, appropriate or desirable to reflect the best interests of the Company. The Board also reserves the right to vary from the policy from time to time without amending it and shall do so by resolution of the Board.

Nanotechnica, Inc.

# SERIES A PREFERRED STOCK PURCHASE AGREEMENT

September 10, 2004

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Nanotechnica Inc. Series A Preferred Stock Purchase Agreement

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### Nanotechnia, Inc.

### SERIES A PREFERRED STOCK PURCHASE AGREEMENT

This Series A Preferred Stock Purchase Agreement (the "<u>Agreement</u>") is made as of September 10, 2004 by and between Nanotechnica, Inc., a California corporation (the "<u>Company</u>") and the investors listed on <u>Exhibit A</u> attached hereto (each a "<u>Purchaser</u>" and together the "<u>Purchasers</u>").

- A. The parties have entered into that certain Agreement to Provide Additional Capital dated September 10, 2003.
- B. The parties desire to enter into this Agreement regarding the sale and purchase of the Stock.

The parties hereby agree as follows:

### 1. Purchase and Sale of Preferred Stock.

### 1.1 Sale and Issuance of Series A Preferred Stock.

- (a) The Company shall adopt and file with the Secretary of State of the State of California on or before the Closing (as defined below) the Certificate of Designation of Rights, Preferences, Privileges and Restriction of Series A Convertible Preferred Stock in the form attached hereto as Exhibit B (the "Certificate").
- (b) Subject to the terms and conditions of this Agreement and the terms and conditions of the Agreement to Provide Additional Capital, Purchaser agrees to purchase at the Closing and the Company agrees to sell and issue to Purchaser at the Closing that number of shares of Series Preferred Stock set forth opposite such Purchaser's name on <a href="Exhibit A">Exhibit A</a> attached hereto at a purchase price of \$4.00 per share. The shares of Series A Preferred Stock issued to the Purchaser pursuant to this Agreement shall be hereinafter referred to as the "Stock."

### 1.2 Closing; Delivery.

- (a) The purchase and sale of the Stock shall take place at the Office of Technology Transfer of the California Institute of Technology, Pasadena, California, at 4 p.m., on September 10, 2004, or at such other time and place as the Company and the Purchasers mutually agree upon, orally or in writing (which time and place are designated as the "<u>Initial Closing</u>"). In the event there is more than one closing, the term "Closing" shall apply to each such closing unless otherwise specified herein.
- (b) At each Closing, the Company shall deliver to each Purchaser a certificate representing the Stock being purchased thereby against payment of the purchase price therefor by check payable to the Company or by wire transfer to a bank account designated by the Company.
- **1.3** <u>Defined Terms Used in this Agreement</u>. In addition to the terms defined above, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

"Code" means the Internal Revenue Code of 1986, as amended.

- "Agreement to Provide Additional Capital" means the agreement between the Company and the Purchasers, dated as of the date of the Initial Closing, in the form of Exhibit C attached hereto.
- "<u>Material Adverse Effect</u>" means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property or results of operation of the Company.
  - "Purchaser" means each of the Purchasers who are initially party to this Agreement.
  - "Securities Act" means the Securities Act of 1933, as amended.
  - "Transaction Agreements" means this Agreement, the Agreement to Provide Additional Capital and the Voting Agreement.
- "<u>Voting Agreement</u>" means the agreement between the Company and the Purchasers, dated as of the date of the Initial Closing, in the form of <u>Exhibit</u> <u>D</u> attached hereto.
- **2.** <u>Representations and Warranties of the Company</u>. The Company hereby represents and warrants to each Purchaser that the following representations are true and complete as of the date of the Initial Closing, except as otherwise indicated.

For purposes of these representations and warranties, the phrase "to the Company's knowledge" shall mean the actual knowledge of Michael L Roukes.

- **2.1** <u>Organization, Good Standing and Qualification.</u> The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of California and has all requisite corporate power and authority to carry on its business as presently conducted or proposed to be conducted.
- **2.2** <u>Subsidiaries</u>. The Company does not currently own or control, directly or indirectly, any interest in any other corporation, partnership, trust, joint venture, limited liability company, association or other business entity. The Company is not a participant in any joint venture, partnership or similar arrangement.
- 2.3 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 and the Transaction Agreements, the performance of all obligations of the Company hereunder and the authorization, issuance and delivery of the Stock and the Common Stock issuable upon conversion of the Stock (together, the "Securities") has been taken or will be taken prior to the Closing, and the Transaction Agreements, when executed and delivered by the Company, shall constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (iii) to the extent of any indemnification provisions contained in the Transaction Agreement may be limited by applicable federal or state securities laws.
- **2.4** <u>Valid Issuance of Securities</u>. The Stock, when issued, sold and delivered in accordance with the terms hereof for the consideration expressed herein, will be duly and validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under this Agreement, the Voting Agreement, applicable state and federal securities laws and liens or encumbrances created by or imposed by a Purchaser. Based in part upon the representations of the Purchasers in Section 3 of this Agreement and subject to the provisions of Section 2.5 below, the Stock will be issued in compliance with all applicable federal and state securities laws. The Common Stock issuable upon conversion of the Stock has been duly and validly reserved for issuance, and upon issuance in accordance with the terms of the Certificate, will be duly and validly issued, fully paid and

nonassessable and free of restrictions on transfer other than restrictions on transfer under this Agreement, the Voting Agreement, applicable federal and state securities laws and liens or encumbrances created by or imposed by a Purchaser. Based in part upon the representations of the Purchasers in Section 3 of this Agreement, and subject to Section 2, below, the Common Stock issuable upon conversion of the Stock will be issued in compliance with all applicable federal and state securities laws.

- **2.5** Governmental Consents and Filings. Assuming the accuracy of the representations made by the Purchasers in Section 3 of this Agreement, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority is required on the part of the Company in connection with the consummation of the transactions contemplated by this Agreement, except for filings pursuant to Section 25102(f) of the California Corporate Securities Law of 1968, as amended, and the rules thereunder, other applicable state securities laws and Regulation D of the Securities Act.
- 2.6 <u>Disclosure</u>. The Company and the Purchasers have engaged in a due diligence process, and in connection with that process the Company has made available to the Purchasers all the information reasonably available to the Company that the Purchasers have requested for deciding whether to acquire the Stock and all information that the Company believes is reasonably necessary to enable the Purchasers to make such a decision. Assuming the accuracy of the Purchasers' representations regarding their sophistication with respect to investments in companies similar to the Company and in light of the due diligence process mentioned above, to the Company's knowledge, no representation or warranty of the Company contained in this Agreement and the exhibits attached hereto, any certificate furnished or to be furnished to Purchasers at the Closing contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained herein or therein not misleading in light of the circumstances under which they were made.
- **2.7** <u>Confidential Information and Invention Assignment Agreements</u>. Each employee, consultant and officer of the Company has executed an agreement with the Company regarding confidentiality and proprietary information substantially in the form or forms delivered to the counsel for the Purchasers. The Company is not aware that any of its employees or consultants is in violation thereof, and the Company will use its best efforts to prevent any such violation.
- **2.8** <u>Capitalization</u>. The authorized capital of the Company consists, or will consist, immediately prior to the Closing of 50,000,000 shares of Common Stock and 20,000,000 shares of Preferred Stock.
- **2.9** <u>Financial Liabilities</u>. Purchasers incurred certain expenses on behalf of the Company. A schedule of these expenses is attached as <u>Exhibit D</u>. The Company agrees to reimburse Purchasers for these expenses.
- **2.10** No Claims. These are no claims or actions, and to the Company's knowledge no claims or actions have been threatened, against the Company or any of its assets or properties.
- 3. Representations and Warranties of the Purchasers. Purchaser hereby represents and warrants to the Company that:
- **3.1** <u>Authorization</u>. The Purchaser has full power and authority to enter into the Transaction Agreements. The Transaction Agreements, when executed and delivered by the Purchaser, will constitute valid and legally binding obligations of the Purchaser, enforceable in accordance with their terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of a specific performance, injunctive relief, or

other equitable remedies, or (b) to the extent the indemnification provisions contained in the Transaction Agreements may be limited by applicable federal or state securities laws.

- 3.2 Purchase Entirely for Own Account. This Agreement is made with the Purchaser in reliance upon the Purchaser's representation to the Company, which by the Purchaser's execution of this Agreement, the Purchaser hereby confirms, that the Securities to be acquired by the Purchaser will be acquired for investment for the Purchaser'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 the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, the Purchaser further represents that the Purchaser does not presently 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 Securities. The Purchaser has not been formed for the specific purpose of acquiring the Securities.
- **3.3** <u>Disclosure of Information</u>. The Purchaser has had an opportunity to discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Stock with the Company's management and has had an opportunity to review the Company's facilities. The Purchaser understands that such discussions and other written information delivered by the Company to the Purchaser, were intended to describe the aspects of the Company's business which the Purchaser believes to be material.
- 3.4 Restricted Securities. The Purchaser understands that the Securities have not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Purchaser's representations as expressed herein. The Purchaser understands that the Securities are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Purchaser must hold the Securities indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Purchaser acknowledges that the Company has no obligation to register or qualify the Securities for resale. The Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Securities, and on requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.
- **3.5 No Public Market.** The Purchaser understands that no public market now exists for any of the securities issued by the Company, and that the Company has made no assurances that a public market will ever exist for the Securities.
- **3.6 <u>Legends</u>**. The Purchaser understands that the Securities and any securities issued in respect of or exchange for the Securities, may bear one or all of the following legends:
  - (a) "THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISTRIBUTION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933."
    - (b) Any legend set forth in or required by the other Transaction Agreements.

- (c) Any legend required by the securities laws of any state to the extent such laws are applicable to the shares represented by the certificate so legended.
- 3.7 Accredited Investor. The Purchaser is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.
- **3.8 No General Solicitation.** Neither the Purchaser, nor any of its officers, employees, agents, directors, stockholders or partners has engaged the services of a broker, investment banker or finder to contact any potential investor nor has the Purchaser or any of the Purchaser's officers, employees, agents, directors, stockholders or partners, agreed to pay any commission, fee or other remuneration to any third party to solicit or contact any potential investor. Neither the Purchaser, nor any of its officers, directors, employees, agents, stockholders or partners has (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the Stock.
- **4.** <u>Conditions of the Purchasers' Obligations at Closing.</u> The obligations of each Purchaser to the Company under this Agreement are subject to the fulfillment, on or before the Closing, of each of the following conditions, unless otherwise waived:
  - **4.1** Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true and correct in all material respects 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 Initial Closing.
  - **4.2** <u>Performance</u>. The Company shall have performed and complied with all covenants, 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 Board of Directors. As of the Initial Closing, the Board shall be comprised of R. Bruce Stewart, Michael L. Roukes and Edward W. Frykman.
  - **4.4** <u>Agreement to Provide Additional Capital</u>. The Company and Arrowhead Research Corporation shall have executed and delivered the Agreement to Provide Additional Capital in substantially the form attached as <u>Exhibit C</u>.
    - 4.5 Board Observation Letter. The Company shall execute and deliver a board observation letter for Dr. Yu-Chong Tai.
  - **4.6 Voting Agreement; Right of First Refusal and Investor Rights Agreement.** The Company (and the respective parties thereto) shall have executed and delivered the Voting Agreement and the Right of First Refusal and Investor Rights Agreement in substantially the form attached as <a href="Exhibit E">Exhibit E</a> and Exhibit F, respectively.
  - **4.7** <u>Certificate</u>. The Company shall have filed the Certificate with the Secretary of State of California on or prior to the Closing Date, which shall continue to be in full force and effect as of the Closing Date.
  - **4.8** Confidential Information and Invention Assignment Agreement. The Company and each of its employees shall have entered into the Company's standard form Confidential Information and Invention Assignment Agreement, in substantially the form approved by the Board of Directors of the Company.
  - **4.9** <u>Proceedings and Documents</u>. 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 Purchaser, and Purchaser (or its counsel) shall have received all such counterpart original and certified or other copies of such documents as reasonably requested. Such documents may include good standing certificates.

- **5.** <u>Conditions of the Company's Obligations at Closing.</u> The obligations of the Company to each Purchaser under this Agreement are subject to the fulfillment, on or before the Closing, of each of the following conditions, unless otherwise waived:
  - **5.1** Representations and Warranties. The representations and warranties of each Purchaser contained in Section 3 shall be true and correct in all material respects on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the Closing.
  - **5.2** <u>Performance</u>. All covenants, agreements and conditions contained in this Agreement to be performed by the Purchasers on or prior to the Closing shall have been performed or complied with in all material respects.
  - **5.3 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 Stock pursuant to this Agreement shall be obtained and effective as of the Closing.

### 6. Miscellaneous.

- **6.1** <u>Survival of Warranties</u>. Unless otherwise set forth in this Agreement, the warranties, representations and covenants of the Company and the Purchasers contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing for a period of one (1) year following the Initial Closing.
- **6.2** Transfer; 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.
- **6.3** <u>Governing Law.</u> This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.
- **6.4** Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.
- **6.5** <u>Titles and Subtitles</u>. 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.
- **6.6** Notices. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient upon delivery, when delivered personally or by overnight courier or sent by fax (upon customary confirmation of receipt), or 48 hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, addressed to the party to be notified at such party's address as set forth on the signature page or Exhibit A hereto, or as subsequently modified by written notice, and if to the Company, with a copy to Heller Ehrman/Venture Law Group, 601 South Figueroa Street, 40th Floor, Los Angeles, California, Attn: Jon Atzen.
- **6.7** <u>Finder's Fee.</u> Each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction. Each Purchaser agrees to indemnify and to hold harmless the Company from any liability for any commission or compensation in the nature of a finder's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which each Purchaser or any of its officers, employees, or representatives is responsible. The Company agrees to indemnify and hold harmless each Purchaser from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this

transaction (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.

- **6.8** Attorney's Fees. If any action at law or in equity (including arbitration) is necessary to enforce or interpret the terms of any of the Transaction Agreements, the prevailing party shall be entitled to reasonable attorney's fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.
- **6.9** <u>Amendments and Waivers</u>. Any term of this Agreement may be amended or waived only with the written consent of the Company and the holders of at least a majority of the Common Stock issued or issuable upon conversion of the Stock. Any amendment or waiver effected in accordance with this Section 6.10 shall be binding upon the Purchasers and each transferee of the Stock (or the Common Stock issuable upon conversion thereof), each future holder of all such securities, and the Company.
- **6.10** Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (a) such provision shall be excluded from this Agreement, (b) the balance of the Agreement shall be interpreted as if such provision were so excluded and (c) the balance of the Agreement shall be enforceable in accordance with its terms.
- **6.11** <u>Delays or Omissions</u>. 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 non-breaching 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.
- **6.12** Entire Agreement. This Agreement, and the documents referred to herein constitute the entire agreement between the parties hereto pertaining to the subject matter hereof, and any and all other written or oral agreements relating to the subject matter hereof existing between the parties hereto are expressly canceled.
- **6.13 Corporate Securities Law.** THE SALE OF THE SECURITIES WHICH ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF THE SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION THEREFOR PRIOR TO THE QUALIFICATION IS UNLAWFUL, UNLESS THE SALE OF SECURITIES IS EXEMPT FROM THE QUALIFICATION BY SECTION 25100, 25102 OR 25105 OF THE CALIFORNIA CORPORATIONS CODE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON THE QUALIFICATION BEING OBTAINED UNLESS THE SALE IS SO EXEMPT.
- **6.14** Confidentiality. Each Purchaser hereto agrees that, except with the prior written permission of the Company, it shall at all times hold in confidence and trust and not use or disclose any confidential information of the Company provided to or learned by such Purchaser in connection with the Purchaser's rights under the Agreements. Notwithstanding the foregoing, each Purchaser may disclose any confidential information of the Company provided to or learned by such Purchaser in connection with

such rights to the minimum extent necessary (i) to evaluate or monitor such Purchaser 's investment in the Company; (ii) as required by federal Securities Laws, including the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, (iii) as required by any court or other governmental body, provided that such Purchaser provides the Company with prompt notice of such court order or requirement to the Company to enable the Company to seek a protective order or otherwise to prevent or restrict such disclosure; (iv) to legal counsel of such Purchaser; (v) in connection with the enforcement of this Agreement or rights under this Agreement; or (vi) to comply with applicable law. The provisions of this Section 6.14 shall be in addition to, and not in substitution for, the provisions of any separate nondisclosure agreement executed by the parties hereto with respect to the transactions contemplated hereby. Notwithstanding anything in this Agreement or in any other written or oral understanding or agreement to which the parties hereto are parties or by which they are bound, each party (and its representatives, agents and employees) may consult any tax advisor regarding the tax treatment and tax structure of the transaction contemplated by this Agreement and may at any time disclose to any person, without limitation of any kind, the tax treatment and tax structure of such transaction and all materials (including opinions or other tax analyses) that are provided relating to such treatment or structure. The preceding sentence is intended to satisfy the requirements for the transaction contemplated herein to avoid classification as a "confidential transaction" in accordance with Treasury Regulations Section 1.6011-4(b)(3) and shall be interpreted consistent with such intent.

This authorization is not intended to permit disclosure of any other information relating to the transaction contemplated by this Agreement, including (without limitation) (i) any portion of any materials to the extent not related to the tax treatment or tax structure of the transaction, (ii) the identities of participants or potential participants in the transaction, (iii) the existence or status of any negotiations, (iv) any pricing or financial information (except to the extent such pricing or financial information is related to the tax treatment or tax structure of the transaction), or (v) any other term or detail not relevant to the tax treatment or the tax structure of the transaction.]

[Signature Pages Follow]

The parties have executed this Series A Preferred Stock Purchase Agreement as of the date first written above.	
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# COMPANY:

Nanotechnica, Inc.

By: /S/ MICHAEL L. ROUKES

Name: Michael L. Roukes

Title: Chief Technical Officer

**PURCHASERS:** 

Arrowhead Research Corporation

By: /S/ R. BRUCE STEWART

Name: R. Bruce Stewart

Title: President

# **EXHIBITS**

Exhibit A - Schedule of Purchasers

Exhibit B - Form of Certificate of Designation

 $Exhibit \ C - \qquad Form \ of \ Agreement \ to \ Provide \ Additional \ Capital$ 

Exhibit D - Expenses

Exhibit E - Form of Voting Agreement

Exhibit F - Form of Right of First Refusal and Investor Rights Agreement

EXHIBIT A

# SCHEDULE OF PURCHASERS

Purchaser
Arrowhead Research
Corporation

Amount

Number of Shares of Stock

Up to \$20,000,000 (subject to the terms and conditions of the Agreement to Provide Additional Capital)

5,000,000

### AGREEMENT TO PROVIDE ADDITIONAL CAPITAL

THIS AGREEMENT TO PROVIDE ADDITIONAL CAPITAL (this "Agreement") is made and entered into as of September 10, 2004, by and between ARROWHEAD RESEARCH CORPORATION, a Delaware corporation ("Arrowhead"), and NANOTECHNICA, INC., a California corporation (the "Company").

- A. Arrowhead has entered into that certain Stock Purchase Agreement dated September 10, 2004 (the "Stock Purchase Agreement") by and between the Company and Arrowhead regarding the sale and issuance to Arrowhead of 5,000,000 shares of the Company's Series A Preferred Stock.
- B. Pursuant to the Stock Purchase Agreement, Arrowhead has agreed to enter into this Agreement to provide, upon the term and conditions of this Agreement, additional capital contributions to the Company.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants and agreements set forth below, the parties hereto agree as follows:

- 1. <u>Commitment to Provide Additional Capital</u>. In addition to the Four Million Dollars (\$4,000,000) provided to the Company as of the date of this Agreement, Arrowhead agrees to provide up to Sixteen Million Dollars (\$16,000,000) of additional capital to the Company, on the following terms and subject to the following conditions:
- (a) Arrowhead shall provide to the Company the additional capital contributions (each a "Capital Contribution") on the dates and in the specific amounts set forth in <u>Appendix I</u> attached hereto and incorporated herein by this reference. Each Capital Contribution must be made in the full amount set forth in <u>Appendix I</u>.
- (b) Notwithstanding the foregoing, in the event Arrowhead is unable to provide the Company with a particular Capital Contribution in the amount set forth in <u>Appendix I</u>. Arrowhead shall provide written notice to the Company no later than 10 days prior to the date of a particular Capital Contribution (each a "Capital Contribution Date") requesting an extension to make a particular Capital Contribution (the "Notice"). Assuming proper receipt of the Notice, the Company shall grant and Arrowhead shall be entitled to a 30-day extension (or such other period as mutually agreed by the Arrowhead and the Company) from the particular Capital Contribution Date to make such Capital Contribution ("Extended Capital Contribution Period"). Arrowhead shall be entitled to make a particular Capital Contribution anytime during the Extended Capital Contribution Period. The procedures set forth in this Section 1(b) are intended to apply to each Capital Contribution. A failure to provide any Capital Contribution in accordance with this Agreement shall cause a forfeiture by Arrowhead of the right to make the current Capital Contribution and any future Capital Contributions scheduled pursuant to <u>Appendix I</u> and all of Arrowhead's rights and obligations shall terminate hereunder in accordance with Section 2, below.

- (c) Any and all Capital Contributions provided by Arrowhead to the Company pursuant to this Agreement shall be deemed contributions to the capital of the Company by Arrowhead, as an existing holder of capital stock of the Company. It is understood and agreed that no capital stock or other security of the Company shall be issued to Arrowhead in consideration or on account of any Capital Contributions provided by Arrowhead to the Company pursuant to the provisions of this Agreement, and that none of such funds shall be considered a loan by Arrowhead to the Company, or otherwise be repayable by the Company to Arrowhead. The liquidation preference to which Arrowhead is entitled as holder of the Company's Series A Preferred Stock will be computed as provided for in the Certificate of Determination of Rights, Preferences, Privileges and Restrictions of Series A Preferred Stock of the Company (the "Certificate of Determination") and will be equal to the aggregate amount of any and all Capital Contributions provided by Arrowhead. The number of shares of Common Stock into which each share of Series A Preferred Stock may be converted shall not be affected by any Capital Contributions.
- 2. <u>Failure of Arrowhead to Make a Required Capital Contribution</u>. Except as set forth in Section 3, below, in the event that Arrowhead fails to provide any Capital Contribution in accordance with <u>Appendix I</u> and pursuant to Section 1, above (the date of such event is hereinafter referred to as the "Forfeiture Date"), then in addition to any other consequences of such failure set forth in the Company's Articles of Incorporation or the Certificate of Determination, the parties agree as follows as of the Forfeiture Date:
- (a) Arrowhead shall immediately be deemed to forfeit (i) that specific number of shares of Series A Preferred Stock set forth in <u>Appendix I</u> which are attributable to a particular Capital Contribution and (ii) any remaining shares of Series A Preferred Stock set forth in <u>Appendix I</u> attributed to any future Capital Contribution. Nothing in this Agreement shall be construed or interpreted to require the forfeiture at any time of the 1,000,000 shares of Series A Preferred Stock for which Arrowhead has purchased pursuant to the Stock Purchase Agreement as is set forth in <u>Appendix I</u>.
- (b) In accordance with the Company's Articles of Incorporation and the Certificate of Determination, Arrowhead shall no longer be entitled to appoint the majority of the number of the directors of the Company's Board of Directors and each such individual member appointed by Arrowhead shall immediately resign from the Company's Board of Directors.
- (c) Arrowhead shall, within five (5) business days of the Forfeiture Date, present to the Company Stock Certificate No. PA-1 representing 5,000,000 shares of Series A Preferred Stock (the "Series A Stock Certificate"). The Company shall have five (5) business days to exchange such certificate for and reissue a new stock certificate which shall represent the aggregate number of Series A Preferred Stock to which Arrowhead is entitled pursuant to this Agreement. In the event Arrowhead provides all Capital Contributions set forth on <u>Appendix I</u>, Arrowhead shall retain the Series A Stock Certificate.
- (d) Following the issuance of the new stock certificate to Arrowhead pursuant to this Agreement, the parties agree that this Agreement shall terminate and have no further force or effect.

- (e) Any and all (i) options to purchase Common Stock of the Company then outstanding under the Company's stock option plan or (ii) shares of Common Stock purchased or issued pursuant to restricted stock purchase agreements that otherwise would not be exercisable or purchasable, as the case may be, pursuant to the provisions of applicable stock option agreements or restricted stock purchase agreements would immediately and automatically accelerate with respect to any vesting imposed upon such options or shares and become immediately exercisable to purchase or purchasable, as the case may be, notwithstanding any provision to the contrary contained in the stock option agreements or restricted stock purchase agreements, but on all of the other terms and conditions contained in the applicable stock option agreements or restricted stock purchase agreements, all or any portion of the shares of Common Stock issuable upon exercise or purchase thereof.
- 3. <u>Protective Provisions; Voting Agreement</u>. Notwithstanding any provision in this Agreement to the contrary, the parties to this Agreement hereby agree as follows:
- (a) In the event Arrowhead provides the Second Capital Contribution (as that term is defined in <u>Appendix I</u> attached hereto), the Company shall amend, within 30 days of the date of the Second Capital Contribution, the Certificate of Determination to include the protective provisions set forth in <u>Exhibit A</u> attached hereto. This amendment may take the form of an amendment to the Certificate of Determination of Series A Preferred Stock or an amendment and restatement of the Articles of Incorporation. The parties hereto agree to take all reasonable actions required to effectuate the amendment set forth in this Section 3(a) and <u>Exhibit A</u>.
- (b) In the event Arrowhead fails to provide any Capital Contributions other than the Initial Capital Contribution (as that term is defined in Appendix I attached hereto), the Company shall, simultaneously with the termination of this Agreement, amend the Voting Agreement with Arrowhead and all other shareholders of Arrowhead to provide for the election of one (1) director of the Board of Directors of the Company designated by Arrowhead so long as Arrowhead holds 500,000 shares of Series A Preferred Stock of the Company. The parties hereto agree to take all reasonable actions required to amend the Voting Agreement contemplated by this Section 3(b).
- 4. <u>Termination</u>. Unless otherwise terminated by the parties, this Agreement shall terminate and have no further force or effect following the earlier to occur of (i) the date of the Third Capital Contribution set forth in <u>Appendix I</u> or (ii) five (5) business days following any Forfeiture Date.

### 5. Miscellaneous.

(a) Subject to the terms and conditions of this Agreement, each of the parties hereto shall use its best efforts to take, or cause to be taken, all action, and to do, or cause to be done, all things necessary, proper or advisable under applicable laws, rules and regulations to consummate and make effective the transactions contemplated by this Agreement. .

- (b) This Agreement shall be binding upon and inure to the benefit of the parties hereto, the heirs, personal representatives, successors and permitted assigns of each of the parties hereto, but shall not confer, expressly or by implication, any rights or remedies upon any other party. Neither this Agreement nor any of the rights, interests or obligations of either party hereunder may be assigned without the prior written consent of the other party.
  - (c) This Agreement is made and shall be governed in all respects, including validity, interpretation and effect, by the laws of the State of California.
- (d) All notices, requests or demands and other communications hereunder must be in writing and shall be deemed to have been duly made if personally delivered or mailed, postage prepaid, to the parties at their respective addresses set forth on the signature page hereof. Any party hereto may change its address by written notice to the other party given in accordance with this subsection 5(d).
- (e) This Agreement, together with the exhibits attached hereto, contains the entire agreement between the parties and supersedes all prior agreements, understandings and writings between the parties with respect to the subject matter hereof and thereof. Each party hereto acknowledges that no representations, inducements, promises or agreements, oral or otherwise, have been made by any party, or anyone acting with authority on behalf of any party, which are not embodied herein or in an exhibit hereto, and that no other agreement, statement or promise may be relied upon or shall be valid or binding. Neither this Agreement nor any term hereof may be changed, waived, discharged or terminated orally. This Agreement may be modified or amended or any term hereof may be changed, waived, discharged or terminated only by an agreement in writing signed by each of the parties hereto; provided, however, that only the independent board member(s) of the Company not affiliated with Arrowhead shall be entitled to vote with respect to any such amendment, change, waiver, discharge or termination affecting the Company.
  - (f) The captions and headings used herein are for convenience only and shall not be construed as a part of this Agreement.
- (g) This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which taken together shall constitute but one and the same document.
- (h) The provisions of this Agreement are severable. In the event that any one or more of the provisions contained in this Agreement, or the application thereof in any circumstances is held invalid, illegal, or unenforceable in any respect for any reason, the validity and enforceability of any such provision in every other respect and of the remaining provisions of this Agreement shall not be in any way impaired or affected, it being intended that all of the rights and privileges contained in this Agreement shall be enforceable to the fullest extent permitted by law.

[SIGNATURES CONTAINED ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties hereto have duly executed and delivered this Agreement as of the day and year first above written.

The Company:

NANOTECHNICA, INC.

By: MICHAEL L. ROUKES

Michael L. Roukes

Title: Vice President and Chief Technical Officer

Arrowhead:

ARROWHEAD RESEARCH CORPORATION

By: R. BRUCE STEWART

R. Bruce Stewart

Title: President

# Appendix I

To

# Agreement to Provide Additional Capital

Amount of Capital Contribution	Capital Contribution Date	Number of Series A Preferred Stock Subject to Forfeiture on the Forfeiture Date
\$4,000,000 (the "Initial Capital Contribution")	September 10, 2004	-0-
\$9,000,000 (the "Second Capital Contribution")	January 1, 2005	2,250,000
\$7,000,000 (the "Third Capital Contribution")	March 31, 2005	1,750,000

### Exhibit A

### **Protective Provisions**

**Protective Provisions.** So long as Arrowhead owns 10% of the shares of Series A Preferred Stock initially acquired by Arrowhead, the Corporation shall not without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the Series A Preferred Stock, voting together as a single class:

- (a) effect a Liquidation Transaction;
- (b) alter or change the rights, preferences or privileges of the shares of Series A Preferred Stock;
- (c) increase or decrease (other than by redemption, conversion or otherwise in accordance with these Restated Articles) the total number of authorized shares of Series A Preferred Stock or Common Stock;
- (d) authorize or issue, or obligate itself to issue, any other equity security, including any security (other than Series A Preferred Stock) convertible into or exercisable for any equity security, having a preference over, or being on a parity with, the Series A Preferred Stock with respect to any rights, preferences or privileges;
- (e) redeem, purchase or otherwise acquire (or pay into or set funds aside for a sinking fund for such purpose) any share or shares of Preferred Stock or Common Stock other than in accordance with the redemption provisions of this Restated Certificate; <u>provided</u>, <u>however</u>, that this restriction shall not apply to the repurchase of shares of Common Stock from employees, officers, directors, consultants or other persons performing services for the Corporation or any subsidiary pursuant to agreements under which the Corporation has the option to repurchase such shares at cost upon the occurrence of certain events, such as the termination of employment, or through the exercise of any right of first refusal, and which repurchase is unanimously approved by the Board of Directors);
  - (f) amend or waive any provision of the Certificate of Determination or the Bylaws;
  - (g) increase or decrease the authorized number of directors on the Board of Directors;
  - (h) take any action which results in borrowing in excess of \$750,000, unless such borrowing is unanimously approved by the Board of

Directors;

- (i) increase the number of shares of Common Stock reserved for issuance under the Corporation's stock or option plans; or
- (j) declare or pay any dividend on any shares of the Corporation's Common Stock or Preferred Stock, except in accordance with Section 1.

# CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-113065 on Form S-3 and No. 333-120072 on Form S-8 of Arrowhead Research Corporation of our report dated November 5, 2004 (except for note 10 as to which the date is December 9, 2004), which expresses an unqualified opinion and is incorporated by reference in this Annual Report on Form 10-KSB of Arrowhead Research Corporation for the year ended September 30, 2004.

/s/ Rose, Snyder & Jacobs

A Corporation of Certified Public Accountants Encino, California December 15, 2004

# CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

I consent to the incorporation by reference in Registration Statement No. 333-113065 on Form S-3 and No. 333-120072 on Form S-8 of Arrowhead Research Corporation of my report dated December 23, 2003, which expresses an unqualified opinion and is incorporated by reference in this Annual Report on Form 10-KSB of Arrowhead Research Corporation for the year ended September 30, 2004.

/s/ KEVIN G. BREARD

Certified Public Accountant

Northridge, California December 15, 2004

### Rule 13a-14(a)/15d-14(a) Certification

### I, R. Bruce Stewart, certify that:

- 1. I have reviewed this Annual Report on Form 10-KSB of Arrowhead Research Corporation;
- 2. Based on my knowledge, this Annual Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Annual Report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this Annual Report;
- 4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)), for the registrant and we have:
  - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Annual Report is being prepared;
  - (b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this Annual Report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
  - (c) disclosed in this Annual Report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - (a) all significant deficiencies in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 16, 2004

/s/ R. BRUCE STEWART

R. Bruce Stewart, President
Chief Executive Officer

### Rule 13a-14(a)/15d-14(a) Certification

### I, Joseph T. Kingsley, certify that:

- 1. I have reviewed this Annual Report on Form 10-KSB of Arrowhead Research Corporation;
- 2. Based on my knowledge, this Annual Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Annual Report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this Annual Report;
- 4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)), for the registrant and we have:
  - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Annual Report is being prepared;
  - (b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this Annual Report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
  - (c) disclosed in this Annual Report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - (a) all significant deficiencies in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date:

-	Joseph T. Kingsley, Chief Financial and Accounting Officer
	/s/ JOSEPH T. KINGSLEY

A signed original of these written statements required by Sections 302 and 906 have been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

# **SECTION 1350 CERTIFICATION**

In connection with the Annual Report on Form 10-KSB of Arrowhead Research Corporation (the "Company") for the FYs ended September 30, 2003 and September 30, 2004 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, R. Bruce Stewart, the Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: December 16, 2004

/s/ R. BRUCE STEWART

R. Bruce Stewart

President & Chief Executive Officer

A signed original of these written statements required by Sections 302 and 906 have been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

# **SECTION 1350 CERTIFICATION**

In connection with the Annual Report on Form 10-KSB of Arrowhead Research Corporation (the "Company") for the FYs ended September 30, 2003 and September 30, 2004 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joseph T. Kingsley, the Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: December 16, 2004

/s/ JOSEPH T. KINGSLEY

Joseph T. Kingsley

Chief Financial and Accounting Officer

A signed original of these written statements required by Sections 302 and 906 have been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.