

**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, 2005.

**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:**

Title of each class

Name of each exchange on which registered

None

None

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

Common Stock, \$.001 par value

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  No

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  No

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act.): Yes  No

Issuer's revenue for its most recent fiscal year: \$580,683

The aggregate market value of issuer's outstanding Common Stock held by non-affiliates was approximately \$83,672,740 based upon the bid price of issuer's Common Stock on September 30, 2005.

As of September 30, 2005, 27,984,194 shares of the issuer's Common Stock were outstanding.

## **SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This report contains forward-looking statements that involve risks and uncertainties. We have made these statements in reliance on the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Our forward-looking statements relate to future events or our future performance and include, but are not limited to, statements concerning our business strategy, research projects and developments, future commercial revenues, market growth, capital requirements, new product introductions, expansion plans and our funding requirements. Other statements contained in our filings that are not historical facts are also forward-looking statements. We have tried, wherever possible, to identify forward-looking statements by terminology such as “may,” “will,” “could,” “should,” “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “estimates” and other comparable terminology.

Forward-looking statements are not guarantees of future performance and are subject to various risks, uncertainties and assumptions that are difficult to predict. Therefore, actual results may differ materially from those expressed in forward-looking statements. They can be affected by many factors, including those discussed under the captions “Management’s Discussion and Analysis—Risk Factors.” Forward-looking statements are based on information presently available to senior management, and we do not assume any duty to update our forward-looking statements.

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

As a public company, we are required to file annually, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any of our materials on file with the SEC at the SEC’s Public Reference Room at 450 Fifth Street, N.W., Judiciary Plaza, Washington, DC 20549, as well as at the SEC’s regional office at 5757 Wilshire Boulevard, Suite 500, Los Angeles, California 90036. Our filings are available to the public over the Internet at the SEC’s website at <http://www.sec.gov>. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. We also provide copies of our Forms 8-K, 10-K, 10-Q, Proxy and Annual Report at no charge to investors upon request and make electronic copies of our most recently filed reports available through our website at [www.arrowres.com](http://www.arrowres.com) as soon as reasonably practicable after filing such material with the SEC.

## 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 Corporation is a diversified nanotechnology company commercializing products and technologies through majority-owned subsidiaries and partnerships with universities and government labs.

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 are being used in a variety of commercial applications and are expected to have broad impact across all industries.

Arrowhead is incorporated in Delaware and its 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 has three strategic components to its business model:

- Outsourced R&D Program: Arrowhead identifies patented or patent-pending technologies at universities or government labs and funds additional development of those technologies in exchange for exclusive rights to commercialize the resulting prototypes. Leveraging the resources and infrastructure of these institutions provides Arrowhead with a cost-effective development pipeline. Currently, Arrowhead is supporting efforts in drug discovery tools, stem cell technology and nanoelectronics at the California Institute of Technology, Stanford University, and Duke University, respectively.
- Commercialization Program: After prototypes have been sufficiently developed in the laboratories, Arrowhead forms or acquires majority-owned subsidiaries to commercialize the technology and provides the subsidiaries with strategic, managerial, and operational support. By doing so, each research team is able to maintain focus on its specific technology and each management team can focus on specific markets, increasing the likelihood of successful technological development and commercialization. At present, Arrowhead owns majority interest in subsidiaries commercializing diverse technologies, including anti-cancer drugs, RNAi therapeutics, compound semiconductor materials, and carbon nanotube technologies.
- The Patent Toolbox: Arrowhead has acquired or exclusively licensed patents and patent applications covering a broad range of nanotechnology. The Company is actively adding to this intellectual property portfolio.

Currently, operations conducted by Arrowhead and its subsidiaries consist primarily of 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.

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As of September 30, 2005, Arrowhead Research Corporation had 32 employees, including nine employees at the corporate office, all of whom were full time.

### Subsidiaries

As of September 30, 2005, Arrowhead held a majority of the voting stock of the following four subsidiaries (the "Subsidiaries"):

<u>Subsidiary</u>	<u>% Ownership</u>	<u>Technology/Product Focus</u>
Aonex Technologies, Inc. <i>founded April 20, 2004</i>	80.0%	Semiconductor nanomaterial process with initial emphasis on high efficiency solar cells
Insert Therapeutics, Inc. <i>acquired June 4, 2004</i>	68.5%	Nano-engineered drug delivery system, preparing for clinical trials with first anti-cancer compound
Calando Pharmaceuticals, Inc. <i>founded February 20, 2005</i>	58.2%*	Nano-engineered RNAi therapeutics
NanoPolaris, Inc. <i>founded April 4, 2005</i>	100.0%	Commercialization of nanotube-based intellectual property

\* Arrowhead has direct ownership of 53.8% of the outstanding, voting stock of Calando and indirectly, through Insert, controls another 6.5% of the outstanding, voting stock.

Except for NanoPolaris, which is wholly-owned by Arrowhead, Arrowhead provided capital in exchange for a majority-interest in each of Aonex, Insert and Calando, as well as the right to appoint a majority of each Subsidiary's Board of Directors. Additionally, Arrowhead entered into an agreement to provide future additional capital to each of Aonex, Insert and Calando, which funding agreements give Arrowhead the right to provide additional capital to each such Subsidiary or to forfeit a specified portion of its interest in lieu of additional future funding.

The following table summarizes the terms and status of these additional capital contributions:

<u>Subsidiary</u>	<u>Total Capital Assuming all Contributions Made</u>	<u>Future Capital Contributions</u>	<u>Time for Additional Capital Contributions</u>
Aonex Technologies, Inc.	\$ 5,000,000	\$ 1,000,000	6 months (1)
Insert Therapeutics, Inc.	\$ 5,000,000	\$ 0	(2)
Calando Pharmaceuticals, Inc.	\$ 4,000,000	\$ 2,000,000	4 months (3)

- (1) Under its Agreement to Provide Additional Capital with Aonex, Arrowhead has the right to provide Aonex up to \$1,000,000 in additional capital on or before the attainment of certain milestones by Aonex.
- (2) Arrowhead has made all required capital contributions to Insert.
- (3) Under its Agreement to Provide Additional Capital with Calando, Arrowhead has the right to provide Calando up to \$2,000,000 in additional capital on or before February 1, 2006.

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Arrowhead may choose not to provide additional capital to Aonex or Calando, in which case Arrowhead will forfeit a specified portion of its interest in such entity. The following table reflects the percentage of Arrowhead's equity in each company subject to forfeiture as of September 30, 2005 if Arrowhead decides not to provide further capital to either subsidiary:

<u>Subsidiary</u>	<u>Capitalization as of September 30, 2005</u>	<u>Potential Additional Capitalization</u>	<u>% Interest subject to Forfeiture</u>
Aonex Technologies, Inc.	\$ 4,000,000	\$ 1,000,000(1)	20%
Calando Pharmaceuticals, Inc.	\$ 2,000,000	\$ 2,000,000(2)	50%

- (1) If Aonex meets its milestones and Arrowhead elects not to provide \$1,000,000 in additional capital to Aonex, Arrowhead would forfeit 20% of its ownership interest in Aonex. If Aonex fails to meet the agreed to milestones, Arrowhead has no obligation to provide additional capital or to forfeit any portion of its ownership.
- (2) If Arrowhead elects not to provide \$2,000,000 in additional capital to Calando on or before February 1, 2006, Arrowhead would forfeit a proportional ownership interest, or 50% of the equity it holds in Calando.

### Aonex Technologies, Inc.

Aonex's technology development efforts are directed toward commercializing a method for manufacturing semiconductor nanomaterials. The Aonex process involves creating nano-layers of expensive semiconductor materials and oxides on 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 a combination of its own fully-operational clean room and outsourced facilities. In addition, Aonex is establishing relationships with third-party providers of specific elements of Aonex's manufacturing process.

### Intellectual Property

Aonex has licensed a suite of intellectual property from Caltech in exchange for the issuance to Caltech of 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

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.

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

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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.

As of September 30, 2005, Aonex had 8 employees, all of whom were full time.

### **Insert Therapeutics, Inc.**

The scientific team at Insert has developed Cyclosert™, a proprietary drug delivery platform technology based on a nano-engineered class of linear cyclodextrin-containing polymers. Cyclodextrins (basically, a cyclic sugar molecule) have been used with great success for drug delivery, principally acting to solubilize drugs that otherwise would not dissolve. In polymeric form, cyclodextrins have been shown to be non-toxic and non-immunogenic, and by enabling the manipulation of particle size and other characteristics, to improve drug properties and performance. The Cyclosert platform has been designed to be a "plug and play" delivery system that can be used with a variety of drug molecules and targeting agents.

Numerous new drugs attack molecules that are on the surface of cells. Many known molecular targets inside the cell remain "undrugable" because drugs that could attack these targets cannot successfully cross the cell membrane or be taken up by the cell's natural mechanisms. By actively inserting a drug payload into cells, Cyclosert promises therapeutic treatment focused on previously unreachable targets. The linkage between Cyclosert and the drug payload can be modified to trigger release of the drug at the appropriate time and in the desired location.

Efforts at this time are focused on bringing Insert's lead anti-cancer drug candidate, IT-101, to clinical trials. IT-101 is a combination of Cyclosert and the potent anti-cancer drug, camptothecin. Camptothecin is an anti-cancer agent that has never been commercialized successfully due its poor solubility, unfavorable pharmacokinetics, and unintended interactions with elements found in human blood. Analogs of camptothecin that have been modified primarily to improve their solubility are widely marketed as therapeutics for colorectal, ovarian and lung cancers despite the serious side effects of these medications. The combination of camptothecin with the Cyclosert polymer has been shown to improve solubility, and to increase circulation time in the body, allowing a disproportionate amount of the drug to accumulate in tumors due to the "leaky" nature of tumor vasculature. Perhaps most importantly, camptothecin is joined to the polymer in such a way that keeps it in a form that releases active camptothecin inside the cell – an advantage over the currently marketed analogs, which begin to chemically transform into a form inactive against cancer – but still highly toxic – almost immediately upon entering the bloodstream.

Insert has completed much of its preclinical animal testing of IT-101, the camptothecin-Cyclosert conjugate. The results have shown promising efficacy at much lower doses than the currently-marketed analogs of camptothecin. Insert has scaled up its manufacture of IT-101 to large quantities through outsourcing. Insert is awaiting results of final GLP toxicity tests and expects to file an Investigational New Drug (IND) application early in 2006. Clinical trials are expected to commence at City of Hope Comprehensive Cancer Center shortly thereafter. The National Cancer Institute (NCI) has designated City of Hope as a Comprehensive Cancer Center - one of just a handful of elite institutions nationwide. The "Comprehensive Cancer Center" designation indicates that City of Hope has undergone a rigorous peer review process, and has been found to be worthy of this highest level of recognition.

Additional information about Insert Therapeutics, Inc. can be found on its website, [www.insertt.com](http://www.insertt.com).

### **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 pending. Insert has also licensed its Cyclosert™ delivery technology to an affiliate company, Calando Pharmaceuticals Inc., for the development and commercialization of RNAi therapeutics.

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### Key Personnel

Insert's corporate and business activities are led by its President, John Petrovich. Mr. Petrovich brings management, strategic planning, legal and fundraising strength and experience to Insert. For the past five years, he has helped guide the development of the CycloSert™ delivery system and also led the drive to Phase I clinical trials for Insert's lead anti-cancer compound, IT-101. His other activities include serving as Chief Executive Officer and President of Calando, an affiliated company commercializing Insert's delivery technology under license in the area of RNA interference. He earned his B.S. in Business Administration/Finance from the University of Southern California and his J.D. from the UCLA School of Law.

Research and development is under the direction of Dr. Thomas Schlupe, Insert's Chief Scientific Officer since August 2004. Dr. Schlupe 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. Schlupe 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.

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 35 patents, has published more than 350 papers and has presented over 500 seminars throughout the world.

As of September 30, 2005, Insert had 9 employees, all of whom were full time. Mr. Petrovich also serves as Chief Executive Officer and President of Calando.

### **Calando Pharmaceuticals, Inc.**

Calando was formed in February 2005 to focus on designing, developing and commercializing novel RNAi therapeutics to treat diseases and other medical conditions by combining effective RNAi therapeutics with patented and proprietary delivery technologies. Calando's delivery technology is one of the family of cyclodextrin-containing polymers developed at Caltech and licensed to Calando for the field of RNAi therapeutics by affiliate Insert Therapeutics. The delivery technology is augmented by a second technology developed at and licensed from Caltech.

Discovered only a few years ago, RNA interference ("RNAi") is a natural mechanism for selectively silencing genes, and it is rapidly advancing as both a target validation tool in drug discovery and as a potential therapeutic. RNAi works through small interfering RNA molecules ("siRNA") that combine with intracellular machinery to identify and destroy target sequences.

A key roadblock to the therapeutic use of RNAi is the lack of an effective delivery mechanism. siRNA is degraded and destroyed in the bloodstream if unprotected and "naked" siRNA is not taken up by cells. Calando's delivery technology binds to and protects siRNA from degradation in the bloodstream. The linear cyclodextrin polymer self-assembles with the siRNA molecule to form a siRNA-containing nanoparticle. With appropriate targeting molecules attached, the siRNA is delivered to cells or tissues of interest, is taken up by the cell, and is released inside the cell.

Preclinical data using Calando's technology from a collaborative study by Caltech and Children's Hospital Los Angeles was published in the journal *Cancer Research* in October 2005. Researchers used a siRNA molecule

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targeting Ewing's Sarcoma, a deadly metastatic childhood cancer and the synthetic delivery system currently under development at Calando to deliver it. This combination was tested in a mouse model of Ewing's Sarcoma. The results showed sequence-specific, anti-tumor effects and conclusive evidence of molecular targeting to and within tumor cells by the systemically delivered siRNA.

Calando currently is conducting further preclinical testing for its own RNAi drug candidates and hopes to complete the scale-up of the manufacture of its delivery polymer and preclinical testing of its first therapeutic candidate by the end of 2006.

In June 2005, Calando granted a license for its delivery technology to Benitec, Inc. to develop an RNAi therapeutic to treat Hepatitis C Virus (HCV). The new technology created by this partnership represents a new therapeutic approach to treating HCV, presently largely incurable and resistant to treatment. HCV is the most common blood-borne infection and the biggest cause of liver transplants in the United States. Under the license agreement, Calando received an upfront payment of \$150,000 and ongoing research support payments, and could receive milestone payments and royalties on revenue from the HCV therapeutic.

Additional information about Calando Pharmaceuticals, Inc. can be found at its website, [www.calandopharma.com](http://www.calandopharma.com).

### Intellectual Property

Calando Pharmaceuticals has an exclusive, worldwide license from Insert to a suite of U.S. and foreign patents that are pending or have been issued to Insert for its CycloSert™ delivery technology for the development and commercialization of RNAi therapeutics. Calando has also filed its own U.S. patent applications, which are pending. Calando has an exclusive, worldwide license from Caltech to other proprietary delivery technology for RNAi therapeutics invented at Caltech by Dr. Davis.

### Key Personnel

Dr. Mark Davis is the founder of Calando. Mr. Petrovich is Calando's Chief Executive Officer and President. Dr. Davis is also the founder of Insert, and Mr. Petrovich is President of Insert. Their biographies are set forth under the above section discussing the Key Personnel of Insert.

Jeremy Heidel, Ph.D. is Senior Scientist at Calando. Dr. Heidel earned his B.S. in Chemical Engineering and Biology from Massachusetts Institute of Technology and his M.S. and Ph.D. degrees in Chemical Engineering from Caltech. Dr. Heidel performed his doctoral thesis research on targeted, systemic, non-viral delivery of siRNA in the laboratory of Dr. Mark Davis, and has expertise in the areas of: (i) synthesis and characterization of polymeric delivery vehicles and their formulations, (ii) identification of siRNA target sites and the design of potent RNAi molecules, and (iii) the design and execution of in vitro and in vivo experiments to evaluate formulation efficacy. He was the first to show that synthetic siRNA molecules do not elicit immune responses in animals.

As of September 30, 2005, Calando had 6 employees, all of whom were full time, not including Mr. Petrovich, who also serves as President of Insert.

### NanoPolaris, Inc.

On April 4, 2005, Arrowhead founded NanoPolaris as a wholly owned subsidiary of Arrowhead. NanoPolaris will seek to generate revenue by licensing intellectual property to customers who will utilize nanotube technology in their products. NanoPolaris now controls commercialization of issued patents and patent applications claiming nanotube compositions of matter and general manufacturing techniques such as chemical vapor deposition synthesis, plasma chemical vapor deposition synthesis, purification, solubilization, separation of certain types of tubes, coating, functionalization and manipulation.

As of September 30, 2005, NanoPolaris had no employees.



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### Nanotechnica - Discontinued Operations

Nanotechnica operations were discontinued as of June 3, 2005 by a vote of the majority of its shareholders. Prior to its dissolution, Arrowhead was the only holder of Nanotechnica's Series A Preferred Stock, which shares contained a liquidation preference. Accordingly, in the dissolution, \$2.8 million in cash was transferred back to Arrowhead along with \$213,000 of the other remaining assets. In accordance with Nanotechnica's license agreements, Nanotechnica returned two issued patents to Caltech and transferred the remaining patents to Arrowhead. Arrowhead has discontinued development efforts related to nanotechnology and microfluidics but is still reviewing possible market opportunities.

The losses incurred by Nanotechnica are segregated on the Consolidated Statement of Operations as "Loss From Discontinued Operations of Nanotechnica Inc." and "Loss from Disposal of Nanotechnica, Inc." As of September 30, 2005, all material liabilities relating to the discontinued operations were paid. Nanotechnica had no revenue in FY 2004 or FY 2005.

As of September 30, 2005, Nanotechnica had no employees.

### Sponsored Research

As of September 30, 2005, Arrowhead had three sponsored research agreements with the California Institute of Technology and one agreement with Stanford University to finance research and development projects in various aspects of nanotechnology. On October 3, 2005, the Company terminated two sponsored research agreements with Caltech based on management's assessment that the research was not leading to commercially viable prototypes. On November 4, 2005 the Company entered into a new sponsored research agreement with Duke University. The changes are part of the Company's strategy to add or, if necessary, to terminate research agreements based upon their commercialization potential.

For each research agreement, the researchers focus their efforts on achieving certain mutually agreed upon goals. Arrowhead monitors the progress of the research, guides the researchers toward commercially viable prototypes, and works with the researchers in developing an intellectual property portfolio and commercialization plan for the technologies. In exchange for funding the research, the Company has the right to exclusively license and commercialize any technology developed as a result of the research.

The three sponsored research and development efforts currently being financed by Arrowhead are:

#### California Institute of Technology

**Drug Discovery Tools:** Professor Patrick Collier's research team at Caltech is developing new tools for drug discovery. Modern drug discovery is inefficient and costly. It generally involves the creation of many molecules (often thousands at a time) and then testing them for desired properties in biological systems. There is a substantial need in the pharmaceutical industry for information about protein structure in order to design drugs in a rational and specific manner. Yet, existing tools for purifying and analyzing proteins require large amounts of sample and are costly, bulky, and not sensitive enough to identify many small molecules involved in protein interactions.

Professor Collier's team is developing two technologies that could form the basis for future drug discovery tools. First, the team has demonstrated 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.

Second, the team has also developed scanning "nanoelectrode" probes consisting of single-wall carbon nanotubes attached to atomic force microscope (AFM) tips. Carbon nanotube tips offer superior imaging resolution compared to conventional AFM tips. Additionally, the nanotubes 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.

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### Stanford University

**Stem Cell Devices:** Professor Nick Melosh and his colleagues at the Stanford Stem Cell Institute and the Lucile Packard Children's Hospital are developing a tool for controlling and testing adult stem cell behavior. Both embryonic and adult stem cells have the ability to become the cells of different tissues and represent a treatment for diseases such as neurological disorder, heart failure, and diabetes. Adult stem cells are less likely to generate immune reactions in patients and, therefore, could be better suited for tissue engineering than embryonic stem cells. At present, there is no commercially available tool to enable scientists and doctors to precisely control the differentiation and function of stem cells.

Professor Melosh's team is creating a synthetic microchip platform that replicates the spatial and temporal distribution of chemical signals that occur around cells *in vivo*. If successful, this technology would create an "artificial niche" for the cell that closely resembles the natural environment. Researchers using this technology could ascertain the necessary conditions that cause specific cell behaviors, or direct the activity of a collection of cells through appropriate signal delivery. The device will consist of arrays of nano to microscale device "reservoirs" on a microchip with an electrically-reversible seal to control chemical flow. These devices could be filled with different drugs or biological signaling agents, which are released on command by the user.

The product resulting from this development effort would initially be manufactured and sold to stem cell researchers in academic and corporate labs to study and manipulate stem cell behavior. The platform could also be used to develop a surgical tool for performing tissue engineering procedures in a hospital setting.

**Clinical Applications:** Arrowhead has also agreed to contribute \$100,000 to the Lucile Packard Children's Hospital over the next year to fund a project to identify how new technologies, such as nanotechnology and stem cell technology, can address existing clinical needs. The pledge will be paid in quarterly installments over one year, at a rate of \$25,000 beginning July 1, 2005.

**Nanoscale Interconnects For Integrated Circuits:** Dr. Jie Liu and his team of researchers at Duke University are developing a process for fabricating new nanoscale interconnect materials in integrated circuits. Interconnects, which are metallic wires that carry electric power in computer chips, are currently made of copper. Resistance and electro-migration in copper interconnects cause problems in smaller integrated circuits. The momentum from moving electrons can cause atoms to move from their original positions which leads to gaps. As a result, progressively smaller integrated circuits made with copper interconnects reduce reliability, lose one or more connections, or even cause failure of the entire circuit. The International Technology Roadmap for Semiconductors 2004 Update states that the interconnect problem will begin at the end of this decade and has "no known solution." Arrowhead intends to fund development of a CMOS compatible process at Duke over the next two years and then partner with device manufacturers to integrate carbon-based interconnects into their manufacturing processes.

### **Acquired Technology**

On May 19, 2005, the Company acquired a suite of patent and patent applications covering nanosensor technology developed by Dr. Hermann Gaub, a Professor of Biophysics at the Center for Nanoscience at Ludwig-Maximilians University in Munich. The portfolio covers techniques for measuring biomolecular interactions by single-molecule force spectroscopy. As reported in *Science* in 2003, the devices are sensitive enough to detect single-base pair mismatches of DNA and have demonstrated significant improvement over state-of-the-art instrumentation. The patent applications also cover construction of parallel assays for placing millions of sensors on a chip. These patent and patent applications were acquired for \$53,000 and are complementary to other patents to which Arrowhead already has rights.

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### **Corporate History.**

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

On January 12, 2004, InterActive consummated a stock exchange transaction with the shareholders of ARC, a privately-held California corporation. This transaction is referred to as the “Share Exchange.” Upon consummation of the Share Exchange, InterActive changed its name to Arrowhead Research Corporation and ARC became a wholly owned, non-operating subsidiary of the Company.

### **Warrant Call**

The Company redeemed its outstanding Warrants on June 15, 2005 under their terms. Prior to their redemption, the Warrants were listed for trading on NASDAQ SmallCap Market™ under the trading symbol “ARWRW.” The Warrants were exercisable for \$1.50 per share of Common Stock, and, as of June 15, 2005, substantially all of the outstanding warrants had been exercised. The Company received approximately \$20.5 million in total exercise proceeds for Warrants.

### **Item 2. Description of Property.**

The Company leases the following facilities in or near Pasadena, California:

	<u>Lab/Office Space</u>	<u>Monthly Rent</u>	<u>Lease Commencement</u>	<u>Lease Term</u>
<b>Arrowhead</b>				
Pasadena (1)	3500 sq ft	\$ 6,300	June 1, 2004	21 months
Pasadena (2)	8000 sq ft	\$ 14,413	December 27, 2004	25 months
New York (3)	130 sq ft	\$ 1,675	September 15, 2005	12 months
<b>Aonex</b>	4000 sq ft	\$ 6,810	July 1, 2004	24 months
<b>Calando</b>	2755 sq ft	\$ 4821	May 16, 2005	24 months
<b>Insert</b>	7000 sq ft	\$ 10,543	N/A	Month to month

- (1) Arrowhead leased new corporate office space in Pasadena on October 19, 2005 which it will occupy in the second quarter of FY 2006.
- (2) In June 2005, Arrowhead assumed the responsibility for the Nanotechnica lease. The lease is being renegotiated, with Insert expected to lease a portion of the Nanotechnica space and Arrowhead expected to occupy the rest. When Insert moves into the space, Insert’s month to month lease will be terminated.
- (3) In September, Arrowhead opened an office in New York City and has one employee working out of that office. The rent for the first six months is \$1,675 per month. For the second 6 months the rent is \$3,350 per month.

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

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### **Item 3. Legal Proceedings.**

The Company is not a party to any lawsuit.

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

No matters were submitted to a vote of security holders during the fourth quarter of fiscal 2005 through the solicitation of proxies or otherwise.

## **PART II**

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

#### Recent Market Prices

On January 12, 2004, the Company effected a 65-for-1 "reverse split" of its Common Stock and changed its name to Arrowhead Research Corporation. Through January 13, 2004, the Company's Common Stock was traded in the over-the-counter market and was quoted on the NASD Electronic Bulletin Board under the symbol "IACG." The symbol under which the Common Stock subsequently traded was changed to "ARWR."

On August 27, 2004, NASDAQ approved the Company's Common Stock and Warrants for listing on the NASDAQ SmallCap Market™. The Warrants were traded under the symbol "ARWRW." On October 7, 2004, a registration statement became effective covering 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. Substantially all the outstanding warrants were exercised by June 2005 and those warrants not exercised were redeemed at \$.001 per share.

During the year ended September 30, 2005, the weekly trading volume ranged from 100,000 shares to 2,248,700 shares with an average weekly volume of 501,056 shares.

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 the NASDAQ SmallCap Market™ after August 27, 2004. Bid quotations reflect inter-dealer prices, without mark-up, mark-down or commission, and may not represent actual transactions. The share prices are 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 Year Ended September 30,			
	2005		2004	
	High	Low	High	Low
1st Quarter	5.60	2.02	3.90	.65
2nd Quarter	4.52	3.54	15.00	1.95
3rd Quarter	4.22	2.14	9.00	4.50
4th Quarter	3.04	2.49	8.00	4.00

On September 30, 2005, the closing price of a share of the Company's Common Stock, as quoted on NASDAQ, was \$2.99.

#### Shares Outstanding

At September 30, 2005, an aggregate of 27,984,194 shares of the Company's Common Stock were issued and outstanding, and were owned by 628 stockholders of record, based on information provided by the Company's transfer agent.

The Company has never paid dividends on its Common Stock and does not anticipate that it will do so in the foreseeable future.

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### Sales of Unregistered Securities

The Company did not conduct any offerings of equity securities during the fourth quarter of 2005 that were not registered under the Securities Act of 1933.

### Repurchases of Equity Securities

We did not repurchase any shares of our common stock during FY 2005 or FY 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**

### Summary

The Company had one employee until February 2004 and its first operating subsidiary was established in April 2004. Therefore, expenses in the first half of FY 2004 were significantly less than the second half of 2004 and in the same two periods of FY 2005. When comparing the results for FY 2004 to FY 2005, the reader should keep this fact in mind.

During the fiscal years ended September 30, 2005 and 2004, the Company generated a loss of \$6.6 million and \$2.5 million, respectively, and had revenues of approximately \$591,000 and \$196,000 respectively. The FY 2005 loss was reduced by a gain of approximately \$2.3 million on the sale of a portion of Arrowhead's interest in Insert in March 2005. The losses in FY 2005 and FY 2004 are due primarily to the costs of the establishment of subsidiaries, the commencement and continuation of the commercialization process within the subsidiaries, the funding of sponsored research programs at universities and the cost of managing and administering a growing public corporation.

On June 3, 2005, a majority of the shareholders of Nanotechnica voted to dissolve that company. Pursuant to the license agreements between Nanotechnica and Caltech, Nanotechnica returned two issued patents to Caltech and transferred the remaining 32 patents to Arrowhead. Arrowhead performed a market study covering the technology represented by the patents and concluded that there is only a remote possibility for near term commercialization of the technology transferred to Arrowhead. Therefore Arrowhead has accounted for the approximately \$1.2 million loss generated by Nanotechnica in FY 2005 as a Loss on Dissolution of Nanotechnica, Inc. With the dissolution of Nanotechnica, the Company's agreement to provide additional capital of up to \$16 million to Nanotechnica terminated.

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Arrowhead has also classified \$74,000 in losses incurred from July 2005 through September 2005 as Loss on Discontinued Operations. This loss was attributable to continued development of the microfluidics technology transferred from Nanotechnica to Arrowhead in June 2005. Arrowhead ceased any further development at September 30, 2005 based upon new market research which showed a limited potential customer base for the products being developed.

Nanotechnica's operations started on September 10, 2004 and had only 20 calendar days of operations in FY 2004. In comparing the financial results for FY 2005 and FY 2004 below, the expenses (approximately \$108,000 related to salaries and starting bonuses) were reclassified as Loss from Discontinued Operations of Nanotechnica, Inc. on the Income Statement for FY 2004.

### Leveraged Technology and Revenue Strategy

Arrowhead continues to follow its strategy to leverage technology which has been developed at universities. By doing so, Arrowhead benefits from work done at those universities and through majority-owned subsidiaries, which can commercialize the most promising technologies developed from sponsored research and other sources. Although the Company is likely to produce prototypes and develop manufacturing processes, it may not ultimately manufacture products developed. The Company has three primary strategies to potentially generate product sales revenue:

- License the products and processes to a third party for a royalty or other payment. By licensing, the Company would not be required to allocate resources to build a sales or a production infrastructure and could use those resources to develop additional products.
- Retain the rights to the products and processes, but contract with a third party for production. The Company would then market 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 would not require investment in production equipment.
- Build production capability in order to produce and market the end products. This last approach would likely require the most capital to build the production, sales and distribution infrastructure.

On a case by case basis, the Company will choose the strategy, which in the opinion of management; will generate the highest return for the Company.

In June 2005, Calando entered into the Company's first commercial licensing deal whereby Calando granted an exclusive worldwide license to Benitec Ltd. (ASX:BLT) for the combination of Calando's polymeric RNA interference (RNAi) delivery technology with Benitec's RNA interference (RNAi)-based therapeutic for hepatitis C virus (HCV). Under the license agreement, Calando received an upfront payment of \$150,000 which has been amortized over 12 months. Calando could also receive additional license fee in the following years, milestone development payments and future royalties on revenue from the HCV therapeutic. As of September 30, 2005; \$43,750 in revenue was recognized. The Company is actively pursuing other license deals.

The Company does not expect any product sales in FY 2006. 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.

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. Approximately \$510,000 in revenue generated in FY 2005 was related to grants awarded to Insert and to Aonex. These grants continue into FY 2006, but there can be no assurance that subsequent grants will be forthcoming.

### Operating Expenditures

For years ended September 30, 2005 and 2004, operating expenses of ongoing operations were approximately \$9.8 million and \$2.9 million, respectively. In FY 2004, most of the expenses were generated in the second half of 2004

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as the Company staffed up to handle the operations of the subsidiary companies and the compliance obligations related to being a public company including becoming compliant with the Sarbanes-Oxley Act ("SOX"). 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 acquired a majority interest in Insert in June 2004 and the FY 2004 financials reflect only 4 months of operations related to Insert. Accordingly, the substantial increase in expenditures in FY 2005 compared to FY 2004 is the result of a full year of development efforts coupled with a significant increase in the number of employees.

### Salary and Salary Related Expenditures

For the years ended September 30, 2005 and 2004, salary and salary-related expenses were 26.8% and 18.3% of total operating expenses, respectively. The Company had only one employee until February 2004. Since that time, the Company hired management, scientific talent and administrative staff to manage operations and continue toward product commercialization. In absolute terms, labor and labor related expenses will continue to increase as the Company and its subsidiaries grow, become more mature and move toward revenue generation. The cost savings from the dissolution of Nanotechnica and termination of its employees is expected to be offset by the expense associated with increased staffing at Insert and Calando (which was established in February 2005).

### General and Administrative (G&A) Expenditures

G & A expenses were 27.4% and 32.0% of operating expenses for years ended September 30, 2005 and 2004, respectively. The Company was operated with limited staffing and expense until the Share Exchange in January 2004 when additional funding was obtained. Beginning in February 2004, the Company began to staff up, establish and acquire companies and comply with the requirements of being a public company. Adding to the expense in 2005 was the warrant call, the dissolution of Nanotechnica, increased expenditures related to investor relations as the Company seeks to gain more recognition in the market place and expenses related to becoming compliant with SOX.

### Consulting Expenditures

Consulting expenses for years ended September 30, 2005 and 2004 were approximately 698,000 and 624,000 respectively, representing 7.1% and 21.2% of total operating expenditures. In FY 2004, approximately \$300,000 of the consulting expenditures related to raising capital and to gaining market awareness for Arrowhead. Approximately \$158,000 related to consulting fees paid to Caltech professors/non employee subsidiary founders to assist in starting up or providing guidance to the subsidiary and fees paid to review acquired patents. Compensation expense recorded as a result of the issuance of options to consultants was approximately \$142,000. Consulting expenses for FY 2005 were approximately as follows: payments to Caltech professors/non employee subsidiary founders of \$194,000, compensation expense recorded as a result of the issuance of options to consultants of \$213,000, outside investor relations assistance of \$120,000, technical and computer services of \$85,000, director and advisory Board fees of \$85,000.

### Research and Development (R&D) Expenditures

R&D expenses are related either to internal R&D or university or sponsored research. Internal R&D expenses were 38.8% and 27.8% of total operating expenses for years ended September 30, 2005 and 2004, respectively. The increase was directly related to the fact that Aonex and Insert were operating for part of FY 2004 and had a full year of operation in FY 2005. In addition, Calando was established in February 2005 and contributed to the R&D spending in that year only.

Sponsored research expense was approximately \$946,000 for the FY 2005 up from \$539,000 in FY 2004. The increase was due to the addition of new sponsored research agreements and the expansion of the scope of work in two of the existing projects. Approximately, \$850,000 in expense in FY2005 was related to projects at Caltech. In October 2005, the Company terminated two sponsored research projects at Caltech and added a new sponsored research project at Duke University. Sponsored research expense is expected to continue and possibly increase as the Company adds more projects and/or expands the scope of work covered by existing

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agreements. However, the mix of the projects will change over time as programs are added or are terminated. In addition, Insert made a contribution of \$75,000 to Dr. Davis's lab at Caltech for which Insert receives rights to all intellectual property developed using these funds.

During the third quarter of FY 2005, Arrowhead exclusively licensed intellectual property from Stanford University for a nanotech device designed to control the behavior of stem cells. Arrowhead has agreed to fund additional research involving the device at Stanford in exchange for the right to exclusively license and commercialize the technology. Arrowhead has agreed to fund \$600,000 to the project over two years, with \$110,000 paid in the fourth quarter of FY 2005 and the remainder to be paid quarterly over the following two years.

Arrowhead has also agreed to contribute \$100,000 over the next year to the Lucile Packard Children's Hospital to fund a project to identify clinical needs where nanotechnology can be used to solve operational problems such as stem cell tissue growth. The pledge is paid in quarterly installments over one year, at a rate of \$25,000 per quarter beginning July 1, 2005.

A Duke University team, led by chemistry professor and leading nanotube expert Dr. Jie Liu, will receive about \$680,000 over two years to develop a new way to create and integrate nanotubes as interconnects in integrated circuits.

### Off-Balance Sheet Arrangements

The Company has real property and equipment leases. See Note 5 to the Consolidated Financial Statements for a description of the terms of the leases and the financial commitments. As of September 30, 2005, the Company had commitments related to sponsored research at two universities. See Note 6 to the Consolidated Financial Statements for a description of the sponsored research and the related financial commitments.

### 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 the Company's focus on Nanotechnology*

*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



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nanotechnology-enabled products will develop, if at all, and we cannot reliably 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 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, have or 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 be 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 is 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.

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*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.

*Our research and product development efforts pertaining to the pharmaceutical industry are subject to additional risks.*

As of September 30, 2005, two of our Subsidiaries, Insert and Calando, were focused on research and development projects related to new and improved pharmaceutical conjugates. Drug development is time-consuming, expensive, and risky. Even product candidates that appear promising in the early phases of development, such as in early animal and human clinical trials, often fail to reach the market for a number of reasons, such as:

- clinical trial results are not acceptable, even though preclinical trial results were promising;
- inefficacy and/or harmful side effects in humans or animals;
- the necessary regulatory bodies, such as the FDA, did not approve our product candidate for an intended use; and
- manufacture and distribution is uneconomical;

Clinical trial results are frequently susceptible to varying interpretations by scientists, medical personnel, regulatory personnel, statisticians, and others, which often delays, limits, or prevents further clinical development or regulatory approvals of a product candidate. If Insert and Calando are unable to cost-effectively achieve acceptance of their respective biopharmaceutical technology, or if the associated drug products do not achieve wide market acceptance, the business of each of Insert and Calando will be materially and adversely affected, and the value of Company's interest in each Subsidiary will be diminished.

*Our corporate compliance program cannot guarantee that we are in compliance with all potentially applicable federal and state regulations.*

The Company's research and development, as well as its efforts related to commercialization, such as clinical trials, manufacturing and distribution, together with the Company's general operations, is subject to extensive federal and state regulation. While we have developed and instituted a corporate compliance program based on current best practices, we cannot assure you that the Company or its employees are or will be in compliance with all potentially applicable federal and state regulations or laws. If we fail to comply with any of these regulations or laws, a range of actions could result, including, but not limited to, the termination of clinical trials, the failure to approve a commercialized product, significant fines, sanctions, or litigation.

*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. Even if successful, efforts to enforce our patent rights could be expensive, distracting for management, 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 the Company's 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. If we are unable to derive value from our licensed or owned intellectual property, the value of your investment in the Company may decline.

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### *Certain Risk Factors Relating to the Early Stage of the Company's 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 formulated by the California corporation following its formation in May 2003 and not previously proven successful. To date, implementation of this strategy is still in the development stage. We have acquired majority interests in four Subsidiary companies and, are sponsoring one university research project at Caltech and two university research projects at Stanford. In November 2005, the Company began sponsorship of research at Duke University. 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, and 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 only generated a small amount of 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.

If we are unable to timely and efficiently design and integrate administrative and operational support for our Subsidiaries, 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 Stockholder 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.

*The Company may 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's plan of operations is to provide substantial amounts of research project funding and financial support for majority-owned Subsidiaries over an extended period of time. Accordingly, the Company may need to raise additional capital in the near term, and may seek to do so by 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 needed by the

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Company will be available to the Company as and when required, or on favorable 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 or 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.

*Stockholder interest in the Company may be substantially diluted in additional financings by the Company.*

Our Certificate of Incorporation authorizes the issuance of an aggregate of 70,000,000 shares of Common Stock, on such terms and at such prices as the Board of Directors of the Company may determine. As of September 30, 2005, an aggregate of 27,984,194 shares of Common Stock were issued and outstanding and 4,959,000 shares of Common Stock were reserved for issuance under the Company's 2000 Stock Option Plan and 2004 Equity Incentive Plan. Therefore, approximately 37,000,000 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. The issuance of additional securities would dilute the equity interests of the Company's existing Stockholders, perhaps substantially, 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.

*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 Mr. R. Bruce Stewart, Chief Executive Officer, 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, Mr. Joseph T. Kingsley joined the Company as its Chief Financial Officer, and on November 14, 2005, Dr. Leon Ekchian joined the Company as its President. Both Mr. Kingsley and Dr. Ekchian are key members of the Company's management team. The Company does not maintain key man life insurance for Mr. Stewart, Mr. Kingsley, Dr. Ekchian, or any other executive. The Company's ability to execute its strategy also will depend on its ability to continue 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.

*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, without further action by the Company's stockholders, currently has the authority to issue up to 5,000,000 shares of preferred stock and to fix the rights (including voting rights), preferences and privileges of these shares ("blank check" preferred). 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 during fiscal 2005 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;

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- 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.

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

Although the Company's Common Stock is listed for trading on The NASDAQ SmallCap Market, currently, our securities are very thinly traded. Accordingly, it may be difficult to sell shares of Common Stock 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.

*If securities or industry analysts do not publish research reports about our business, or 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 or 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 our Common Stock may be adversely affected by the sale of shares by the Company's management or founding Stockholders.*

Sales of our Common Stock by our officers, directors and founding Stockholders could adversely and unpredictably affect the price of those securities. Additionally, the price of Arrowhead's Common Stock could be affected even by the potential for sales by these persons. We cannot predict the effect that any future sales of our Common Stock or the potential for those sales, will have on our share price.

*We may be the target 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 cash 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.

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### **Item 7. Financial Statements.**

The 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.**

The opinion of Rose Snyder & Jacobs ("RSJ") for the years ended September 30, 2004 and 2005 is unqualified.

During this 2-year period, there were no disagreements with RSJ or the Company's 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.**

The executive officers and directors of the Company currently are as follows:

<u>Name</u>	<u>Age</u>	<u>Title</u>
R. Bruce Stewart	68	Chief Executive Officer and Director
Leon K. Ekchian	49	President and Director
Joseph T. Kingsley	60	Chief Financial Officer & Secretary
Edward W. Frykman	69	Director
LeRoy T. Rahn	70	Director
Charles P. McKenney	66	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.

**Leon K. Ekchian** joined the Company as President on November 14, 2005 and on December 8, 2005, was elected to the Board of Directors. Previously, from 1997 to 2005, Dr. Ekchian was President, CEO and a Board member of Litex, Inc., a Lockheed Martin spin-off company focused on the commercialization of advanced electronic automotive emission control systems. Prior to Litex, Dr. Ekchian was a Business Development Executive for Lockheed Martin from 1993 to 1997. During the 1980's and early 1990's, Dr. Ekchian was Program Manager of Advanced Programs at Litton Data Systems. Dr. Ekchian received his B.S., M.S. and Ph.D from the Department of Electrical Engineering and Computer Science at the Massachusetts Institute of Technology. Dr Ekchian also has an MBA from UCLA.

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**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 Vice President Operations and 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 2006 Annual Meeting under the captions Election of Directors, Executive Officers, and Compliance with Section 16 of the Securities Exchange Act of 1934, is hereby incorporated by reference.

### **Item 10. Executive Compensation.**

Information appearing in the Proxy Statement for the 2006 Annual Meeting under the caption Executive Compensation 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 2006 Annual Meeting under the caption Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters, and is incorporated herein by reference.

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### 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 below. 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) See Index to Financial Statements located on page F-1.

#### (2) Financial Statement Schedules

None

#### (3) Exhibits:

<u>Exhibit Number</u>	<u>Document Description</u>
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	Certificate of Amendment to Certificate of Incorporation, dated January 25, 2005. (3)
3.4	Bylaws (1)
4.1	Registration Rights Agreement dated January 12, 2004 (4)
4.2	Standstill and Registration Rights Agreement dated January 12, 2004 (4)
4.3	Form of Warrant to Purchase Common Stock (5)
10.1	Research Agreement with California Institute of Technology regarding the research of C. Patrick Collier (6)
10.2	Research Agreement with California Institute of Technology regarding the research of Marc Bockrath (terminated by notice issued October 3, 2005, effective December 2, 2005) (6)
10.3	Research Agreement between California Institute of Technology pertaining to research in Harry Atwater's laboratory (terminated by notice issued October 3, 2005, effective December 2, 2005) (7)
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) (7)
10.5	Letter Agreement among the Company, California Institute of Technology and Michael Roukes pertaining to the formation of Nanotechnica (fka Nanokinetics) (7)
10.6	Series B Stock Purchase Agreement pertaining to acquisition of majority interest in Insert Therapeutics, Inc. (7)
10.7	Consulting Agreement between Insert Therapeutics and Dr. Mark Davis (8)
10.8	Consulting Agreement between Insert Therapeutics and Neologix, Inc. (8)
10.9	Amendment No. 1 to Agreement to Provide Additional Capital between Arrowhead and Insert Therapeutics, Inc. (8)
10.10	Consulting Agreement between Aonex Technologies, Inc. (fka Aonex Corporation) and Dr. Harry Atwater (8)
10.11	Agreement to Provide Additional Capital between Arrowhead Research and Aonex Technologies, Inc. (8)
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). (9)
10.13**	Copy of the Arrowhead Research Corporation 2004 Stock Option Plan. (10)
10.14**	Copy of the Arrowhead Research Corporation Non-employee Director Compensation Policy (11)
10.15	Series A Stock Purchase Agreement pertaining to acquisition of majority interest in Nanotechnica, Inc. (11)
10.16	Agreement to Provide Additional Capital between Arrowhead Research and Nanotechnica, Inc. (11)
21	Subsidiaries of the Registrant. <ul style="list-style-type: none"><li>• Aonex Technologies, Inc., a California corporation</li><li>• Insert Therapeutics, Inc., a Delaware corporation</li><li>• Calando Pharmaceuticals, Inc., a Delaware corporation</li><li>• Nanotechnica, Inc., a California corporation, dissolved as of June 3, 2005</li><li>• NanoPolaris, Inc., a Delaware corporation</li></ul>
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*

\* Filed herewith.





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\*\* 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 Quarterly Report on Form 10-QSB for the quarter ended December 31, 2004, filed by registrant on February 11, 2005.
- (4) Incorporated by reference from the Annual Report on Form 10-KSB for the year ended September 30, 2004, filed by registrant on January 13, 2003.
- (5) 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.
- (6) Incorporated by reference from the Annual Report on Form 10-KSB/A for the year ended September 30, 2004, filed by registrant on July 7, 2004.
- (7) 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.
- (8) 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.
- (9) Incorporated by reference from the Registration Statement on Form S-8, filed by registrant on October 29, 2004.
- (10) Incorporated by reference from Annex A to the definitive Schedule 14C filed by registrant on December 16, 2005.
- (11) Incorporated by reference from the Annual Report on Form 10-KSB for the year ended September 30, 2005, filed by registrant on December 16, 2005.

**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 22 day of December 2005.

ARROWHEAD RESEARCH CORPORATION

By: /s/ R. BRUCE STEWART

\_\_\_\_\_  
R. Bruce Stewart  
President and Chief Executive Officer

**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:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ R. Bruce Stewart</u> R. Bruce Stewart	Chief Executive Officer and Director (Principal Executive Officer)	December 22, 2005
<u>/s/ Leon Ekchian</u> Leon Ekchian	President and Director	December 22, 2005
<u>/s/ Joseph T. Kingsley</u> Joseph T. Kingsley	Chief Financial Officer (Principal Financial Officer)	December 22, 2005
<u>/s/ Edward W. Frykman</u> Edward W. Frykman	Director	December 22, 2005
<u>/s/ LeRoy T. Rahn</u> LeRoy T. Rahn	Director	December 22, 2005
<u>/s/ Charles P. McKenney</u> Charles P. McKenney	Director	December 22, 2005

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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,

<a href="#">Reports of Independent Registered Public Accounting Firms.</a>	F-2
<a href="#">Consolidated Balance Sheets of Arrowhead Research Corporation and subsidiaries, September 30, 2005 and 2004.</a>	F-3
<a href="#">Consolidated Statements of Operations of Arrowhead Research Corporation and subsidiaries for the years ended September 30, 2005 and 2004 and the period from May 7 (inception) through September 30, 2005.</a>	F-4
<a href="#">Consolidated Statement of Shareholders' Equity of Arrowhead Research Corporation and subsidiaries for the period from May 7, 2003 (inception) through September 30, 2005.</a>	F-5
<a href="#">Consolidated Statement of Cash Flows of Arrowhead Research Corporation and subsidiaries for the years ended September 30, 2005 and 2004 and the period from May 7 (inception) through September 30, 2005</a>	F-6
<a href="#">Notes to Consolidated Financial Statements of Arrowhead Research Corporation and subsidiaries.</a>	F-7

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 sheets of Arrowhead Research Corporation (a Delaware corporation) and Subsidiaries as of September 30, 2005 and 2004 and the related consolidated statements of operations, shareholders' equity and cash flows for the years then ended, and for the period from May 7, 2003 (inception) through September 30, 2005. 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 audits.

We conducted our audits in accordance with the standards established by the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits 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 audits provide 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, 2005 and 2004, and the consolidated results of their operations and their cash flows for the years then ended, and for the period from May 7, 2003 (inception) through September 30, 2005 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 30, 2005

**Arrowhead Research Corporation and Subsidiaries**  
**(A Development Stage Company)**  
**Consolidated Balance Sheets**  
**As of September 30, 2005 and September 30, 2004**

	September 30, 2005	September 30, 2004
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	22,467,016	8,552,667
Investments at fair market value	76,880	487,887
Grant receivable, net of allowance for doubtful account of \$0	25,748	51,835
Other receivables	7,700	—
Prepaid sponsored research, <i>Note 6.</i>	10,000	364,378
Other prepaid research	81,666	—
Other prepaid expenses	144,985	40,308
	<hr/>	<hr/>
<b>TOTAL CURRENT ASSETS</b>	<b>22,813,995</b>	<b>9,497,075</b>
<b>PROPERTY &amp; EQUIPMENT</b>		
Computers, office equipment and furniture	392,164	134,869
Research equipment	860,759	694,854
Software	52,023	714
Construction in progress	—	126,438
Leasehold improvement	324,690	—
	<hr/>	<hr/>
	1,629,636	956,875
Less: Accumulated depreciation & amortization	(551,514)	(74,829)
	<hr/>	<hr/>
<b>NET PROPERTY &amp; EQUIPMENT</b>	<b>1,078,122</b>	<b>882,046</b>
<b>OTHER ASSETS</b>		
Restricted cash	—	50,773
Rent deposit	110,379	24,618
Patents, <i>Note 1.</i>	3,276,075	1,062,266
Goodwill	1,762,150	399,000
	<hr/>	<hr/>
<b>TOTAL OTHER ASSETS</b>	<b>5,148,604</b>	<b>1,536,657</b>
	<hr/>	<hr/>
<b>TOTAL ASSETS</b>	<b>\$29,040,721</b>	<b>\$ 11,915,778</b>
	<hr/>	<hr/>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable	471,943	540,739
Accrued expenses	264,541	81,911
Payroll liabilities	181,330	67,048
Deferred Revenue	106,250	—
	<hr/>	<hr/>
<b>TOTAL CURRENT LIABILITIES</b>	<b>1,024,064</b>	<b>689,698</b>
	<hr/>	<hr/>
Minority interests	1,889,190	1,777,699
Commitment and contingencies, <i>Note 6.</i>		
<b>SHAREHOLDERS' EQUITY, <i>Note 4.</i></b>		
Common Stock	27,997	13,643
Preferred Stock	—	—
Deferred compensation	(728,450)	(194,126)
Additional paid-in capital	36,044,924	12,221,044
Accumulated deficit during the development stage	(9,217,004)	(2,592,180)
	<hr/>	<hr/>
<b>TOTAL SHAREHOLDERS' EQUITY</b>	<b>26,127,467</b>	<b>9,448,381</b>
	<hr/>	<hr/>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<b>\$29,040,721</b>	<b>\$ 11,915,778</b>
	<hr/>	<hr/>

*The accompanying notes are an integral part of these financial statements.*

**Arrowhead Research Corporation and Subsidiaries**  
**(A Development Stage Company)**  
**Consolidated Statements of Operations**

	Year ended September 30, 2005	Year ended September 30, 2004	Period from May 7, 2003 (Date of inception) to September 30, 2005
<b>REVENUE</b>	<b>\$ 590,683</b>	<b>\$ 196,306</b>	<b>\$ 786,989</b>
<b>OPERATING EXPENSES</b>			
Salaries	2,617,955	523,790	3,166,745
Consulting	697,952	624,330	1,347,282
General & administrative expenses	2,676,832	913,653	3,631,548
Research & development	3,793,377	793,354	4,590,106
<b>TOTAL OPERATING EXPENSES</b>	<b>9,786,116</b>	<b>2,855,127</b>	<b>12,735,681</b>
<b>OPERATING LOSS</b>	<b>(9,195,433)</b>	<b>(2,658,821)</b>	<b>(11,948,692)</b>
<b>OTHER INCOME (EXPENSES)</b>			
Gain on sale of stock in subsidiary	2,292,800	—	2,292,800
Loss on disposition of building & equipment	—	—	—
Realized & unrealized gain (loss) in marketable securities	78,761	(12,113)	66,648
Interest income	151,052	31,341	182,393
Other income	3,308	—	3,308
Minority interests	1,520,039	251,723	1,771,762
Patents - amortization	(167,321)	—	(167,321)
<b>TOTAL OTHER INCOME (EXPENSES)</b>	<b>3,878,639</b>	<b>270,951</b>	<b>4,149,590</b>
Loss from continuing operations	(5,316,794)	(2,387,870)	(7,799,102)
Loss from discontinued operations of Nanotechnica, Inc.	(1,234,233)	(108,272)	(1,342,505)
Loss on disposal of Nanotechnica, Inc. (July 2005 - September 2005)	(73,797)	—	(73,797)
Provision for income taxes	—	(800)	(1,600)
<b>NET LOSS</b>	<b>(6,624,824)</b>	<b>(2,496,942)</b>	<b>(9,217,004)</b>
Loss from continuing operations per share, basic and diluted	(0.28)	(0.22)	
Loss from discontinued operations per share, basic and diluted	(0.07)	(0.01)	
Net loss per share, basic and diluted	(0.35)	(0.23)	
Weighted average shares outstanding, basic and diluted	18,725,263	11,002,094	

*The accompanying notes are an integral part of these financial statements.*

**Arrowhead Research Corporation and Subsidiaries**  
**( A Development Stage Company )**  
**Consolidated Statement of Stockholders Equity**  
**from inception to June 30, 2005**

	Common Stock		Additional Paid-in- Capital	Deferred Compensation	Accumulated Deficit during the Development Stage	Totals
	Shares	Amount				
<b>Initial Issuance of Stock:</b>						
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	—	—	(168,000)	—	—	(168,000)
Net loss for period from inception to September 30, 2003	—	—	—	—	(95,238)	(95,238)
<b>Balance at September 30, 2003</b>	<b>4,680,000</b>	<b>4,680</b>	<b>1,510,320</b>	<b>—</b>	<b>(95,238)</b>	<b>1,419,762</b>
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	6	5,994	—	—	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)
<b>Balance at September 30, 2004</b>	<b>13,631,546</b>	<b>\$13,645</b>	<b>\$ 12,221,042</b>	<b>\$ (194,126)</b>	<b>\$ (2,592,180)</b>	<b>\$ 9,448,381</b>
Exercise of warrants @ \$1.50 per share	13,812,888	13,813	20,705,522	—	—	20,719,335
Exercise of stock options @ \$1.00 per share	25,000	25	24,975	—	—	25,000
Purchase of Insert Therapeutics shares @ \$0.28/share	502,260	502	1,999,498	—	—	2,000,000
Common stock issued for services	12,500	12	49,988	—	—	50,000
Issuance of stock options	—	—	813,812	(813,812)	—	—
Amortization of deferred compensation expense	—	—	—	279,488	—	279,488
Change in percentage of ownership in subsidiary	—	—	230,087	—	—	230,087
Net loss for the year ended September 30, 2005	—	—	—	—	(6,624,824)	(6,624,824)
<b>Balance at September 30, 2005</b>	<b>27,984,194</b>	<b>27,997</b>	<b>36,044,924</b>	<b>(728,450)</b>	<b>(9,217,004)</b>	<b>26,127,467</b>

*The accompanying notes are an integral part of these financial statements.*



**Arrowhead Research Corporation and Subsidiaries**  
**( A Development Stage Company )**

**Consolidated Statements of Cash Flows**

**For the year ended September 30, 2005 and 2004 and from inception through September 30, 2005**

	Year ended September 30, 2005	Year ended September 30, 2004	Period from May 7, 2003 ( Date of inception) to September 30, 2005
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Net Loss	\$ (6,624,824)	\$(2,496,942)	\$ (9,217,004)
Loss on disposal of assets	—	—	—
Unrealized (gain) loss on investment	(78,761)	12,113	(66,648)
Stock issued as gift to Caltech	—	162,750	162,750
Stock issued for professional services	50,000	—	50,000
Compensation expense related to stock option issuance	279,488	142,572	422,060
Depreciation & amortization	644,006	74,740	718,836
Gain on sale of stock in subsidiary	(2,292,800)	—	(2,292,800)
Minority interests	(1,520,039)	(251,723)	(1,771,762)
Decrease/increase in:			
Receivables	18,387	(51,835)	(33,448)
Prepaid research expense	272,711	(205,753)	(91,667)
Other prepaid expenses	(104,677)	(40,308)	(144,985)
Deposits	(85,761)	(14,660)	(100,421)
Accounts payable	(68,795)	248,160	272,053
Accrued expenses	191,216	39,422	231,438
Deferred revenue	106,250	—	106,250
Other liabilities	114,282	67,048	184,019
<b>NET CASH USED IN OPERATING ACTIVITIES</b>	<b>(9,099,317)</b>	<b>(2,314,416)</b>	<b>(11,571,329)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Purchase of property & equipment	(672,761)	(665,465)	(1,340,341)
Cash paid for interest in Nanotechnica	—	(4,000,000)	(4,000,000)
Cash paid for interest in Aonex	(2,000,000)	(2,000,000)	(4,000,000)
Cash paid for interest in Insert	(4,000,000)	(1,000,000)	(5,000,000)
Cash paid for interest in Calando	(2,000,000)	—	(2,000,000)
Cash paid for interest in NanoPolaris	(1,000)	—	(1,000)
Cash obtained from interest in Nanotechnica	—	4,000,000	4,000,000
Cash obtained from interest in Aonex	2,000,000	2,001,250	4,001,250
Cash obtained from interest in Insert	4,075,000	1,304,594	5,379,594
Cash obtained from interest in Calando	2,000,000	—	2,000,000
Cash obtained from interest in NanoPolaris	1,000	—	1,000
Proceeds from sale of stock in subsidiary	2,424,924	—	2,424,924
Proceeds from sale of investments	489,768	—	489,768
Payment for patents	(98,373)	—	(98,373)
Restricted cash	50,773	—	50,773
<b>NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES</b>	<b>2,269,331</b>	<b>(359,621)</b>	<b>1,907,595</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Proceeds from issuance of common stock & warrants, net	20,744,335	9,871,415	32,130,750
<b>NET CASH PROVIDED BY FINANCING ACTIVITIES</b>	<b>20,744,335</b>	<b>9,871,415</b>	<b>32,130,750</b>
<b>NET INCREASE IN CASH</b>	<b>13,914,349</b>	<b>7,197,378</b>	<b>22,467,016</b>
<b>CASH AT BEGINNING OF PERIOD</b>	<b>8,552,667</b>	<b>1,355,289</b>	<b>—</b>
<b>CASH AT END OF PERIOD</b>	<b>\$22,467,016</b>	<b>\$ 8,552,667</b>	<b>\$ 22,467,016</b>
<b>Supplementary disclosures:</b>			
Interest paid	\$ —	\$ —	\$ —
Income tax paid	\$ 2,400	\$ 800	\$ 3,200
<b>SUPPLEMENT NON CASH TRANSACTIONS</b>			

On March 23, 2005, Arrowhead purchased 7,375,000 shares of Insert Therapeutic, Inc. common stock from two minority stockholders of Insert for 502,260 newly issued shares of Arrowhead Common Stock valued at \$ 2,000,000 based on the closing market price of Arrowhead Common Stock on NASDAQ on the date of the closing.

*The accompanying notes are an integral part of these financial statements.*

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NOTE 1: ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

*Nature of Business*

Arrowhead is a diversified nanotechnology company commercializing products and technologies through majority-owned subsidiaries and partnerships with universities and government labs.

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 are being used in a variety of commercial applications and are expected to have broad impact across all industries.

**Description of the Business**

Arrowhead is a development-stage company and has three strategic components to its business model:

- **Outsourced R&D Program**: Arrowhead identifies patented or patent-pending technologies at universities or government labs and funds additional development of those technologies in exchange for exclusive rights to commercialize the resulting prototypes. Leveraging the resources and infrastructure of these institutions provides Arrowhead with a cost-effective development pipeline. Currently, Arrowhead is supporting efforts in drug discovery tools, stem cell technology and nanoelectronics at the California Institute of Technology, Stanford University, and Duke University, respectively.
- **Commercialization Program**: After prototypes have been sufficiently developed in the laboratories, Arrowhead forms or acquires majority-owned subsidiaries to commercialize the technology and provides the subsidiaries with strategic, managerial, and operational support. By doing so, each research team is able to maintain focus on its specific technology and each management team can focus on specific markets, increasing the likelihood of successful technological development and commercialization. At present, Arrowhead owns majority interest in subsidiaries commercializing diverse technologies, including anti-cancer drugs, RNAi therapeutics, and compound semiconductor materials.
- **The Patent Toolbox**: Arrowhead has acquired or exclusively licensed patents and patent applications covering a broad range of nanotechnology. The Company actively adds to its intellectual property portfolio.

Currently, operations conducted by Arrowhead and its subsidiaries consist primarily of 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.

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

The Company has had no revenue from product sales since its inception. The Company has had some revenue from licensing and from grants.

*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.

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**Principles of Consolidation** - The consolidated financial statements of the Company include the accounts of Arrowhead and its subsidiaries, Aonex Technologies, Inc. ("Aonex"), Calando Pharmaceuticals, Inc. ("Calando"), Insert Therapeutics, Inc. ("Insert"), NanoPolaris, Inc. ("NanoPolaris"), and Nanotechnica, Inc. ("Nanotechnica," which the majority of its shareholders voted to dissolve on June 3, 2005). All significant intercompany accounts and transactions are eliminated in consolidation and minority interests were accounted for in the condensed consolidated statement of operations and the balance sheets.

**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, patents, goodwill and useful lives for depreciable and amortizable assets. Actual results could differ from those estimates.

**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.

**Concentration of Credit Risk** - The Company maintains checking accounts for Arrowhead and separate accounts for each subsidiary at one financial institution. These accounts are insured by the Federal Deposit Insurance Corporation (FDIC), up to \$100,000. The Company has a portion of its excess cash in two "Diversifier Accounts" at the same financial institution. The "Diversifier Accounts" invest in other bank issued CD's in amounts of \$100,000, each of which are fully insured by FDIC. The Company has a Wealth Management Account at the same financial institution which invests in higher yield money market accounts and in government securities. At September 30, 2005, the Company had no investments in government securities. The Company maintains one money market account at a brokerage firm. This account is not insured by the FDIC. At September 30, 2005, the Company had uninsured cash deposits totaling \$15,247,637. The Company has not experienced any losses in such accounts and management believes it has placed its cash on deposit with financial institutions that are financially stable.

**Marketable Securities** - The Company holds certain securities investments, reflected on the Company's balance sheet as "Investments at fair market value," consisting of corporate stocks held principally for the purpose of selling in the near term. The investments 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 the statement of operations.

**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 amortized over the life of the lease.

**Intellectual Property** - At September 30, 2005, intellectual property consists of patents (acquired through Nanotechnica and Insert) and patent applications (original cost \$98,733) acquired in FY 2005. The purchased patent applications will be amortized over three years. The additional capital investment in Insert by the Company has been recorded as an increase in the value of the patent held by Insert and the amount (\$3,279,055) is being amortized over the life of this patent. As of September 30, 2005, the patent has 158 months to run. The accumulated amortization of patents totaled \$128,827 at September 30, 2005. The majority of the Nanotechnica patents were transferred from Nanotechnica to Arrowhead in June 2005 and subsequently written off. (See Note 3)

**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, an adjustment is then made. To date, no such impairment has been recorded. Goodwill at September 30, 2005 consisted of \$799,000 for Aonex and \$963,150 for Calando.

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Revenue Recognition - Insert 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. For the year ended September 30, 2005, Insert recognized \$536,933, in revenue applicable to these grants. Since its acquisition by Arrowhead on June 4, 2004 through September 30, 2005, Insert has recognized \$733,239 in revenue from these grants. Calando signed a license agreement on June 20, 2005 with an initial upfront license fee of \$150,000. The revenue applicable to the license is being amortized over 12 months. Calando recognized \$43,750 in license revenue in through September 30, 2005. The remainder of \$106,250 is reported as deferred revenue at September 30, 2005.

Research and Development - Costs and expenses that can be clearly identified as research and development are charged to expense as incurred in accordance with FASB statement No. 2, "Accounting for Research and Development Costs."

Earnings (Loss) 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 stock options issued to employees and consultants of the Company. For years ended September 30, 2005 and 2004 respectively, their effect is anti-dilutive.

Recently Issued Accounting Pronouncements - In December 2004, the FASB issued Statement of Accounting Standard No. 123R, "Share-Based Payment", a revision of SFAS No. 123, "Accounting for Stock-Based Compensation." SFAS 123R supersedes APB Opinion No. 25, Accounting for Stock Issued to Employees." SFAS 123R requires all companies to measure compensation expense for all share-based payments including employee stock options and options issued pursuant to employee stock purchase plans) based upon the fair value of the stock-based awards at the date of grant, and is effective for the Company for fiscal year beginning after December 15, 2005. The impact of adoption of Statement 123R cannot be predicted at this time because it will depend on levels of share-based payments granted in the future.

In May 2005, the FASB issued SFAS No. 154, "Accounting Changes and Error Corrections." This statement applies to all voluntary changes in accounting principle and requires retrospective application to prior periods' financial statements of changes in accounting principle, unless this would be impracticable. This statement also makes a distinction between "retrospective application" of an accounting principle and the "restatement" of financial statements to reflect the correction of an error. This statement is effective for accounting changes and corrections of errors made in fiscal years beginning after December 15, 2005. The Company is evaluating the effect the adoption of this interpretation will have on its financial position, cash flows and results of operations.

**NOTE 2: BASIS OF CONSOLIDATION**

The consolidated financial statements for the years ended September 30, 2005 and 2004 respectively include the accounts of Arrowhead and its subsidiaries, Aonex, Calando, Insert, NanoPolaris, and Nanotechnica (which a majority of its shareholders voted to dissolve on June 3, 2005). All significant intercompany accounts and transactions are eliminated in consolidation and minority interests were accounted for in the consolidated statements of operations and the balance sheets.

In January 2004, the shareholders of a private California corporation entered into a share exchange with the Company that resulted in a change of control of the Company. The share exchange transaction was accounted for as a "reverse acquisition," as though 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 from and after January 12, 2004.

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**NOTE 3. INVESTMENT IN SUBSIDIARIES**

Aonex Technologies, Inc.

On April 20, 2004, Arrowhead acquired 1,000,000 shares of Series A Preferred stock in a newly-formed entity, Aonex for \$2,000,000. The 1,000,000 shares of Series A Preferred stock represent 80% of the outstanding, voting shares of Aonex and allow Arrowhead to elect a majority of Aonex' Board of Directors. To date, Arrowhead provided \$2,000,000 of additional capital to Aonex.

Insert Therapeutics, Inc.

On June 4, 2004, Arrowhead purchased 24,496,553 shares of Series B Preferred Stock of Insert, a Pasadena, California based company for \$1,000,000. The Series B Preferred Stock allows Arrowhead to elect a majority of Insert's Board of Directors. On March 29, 2005, Arrowhead exchanged 4,000,000 shares of its Series B Preferred Stock for 4,000,000 shares of Series C Preferred Stock. The Series C Preferred Stock has identical rights, preferences and privileges to the Series B Preferred Stock, except that the Series C Preferred Stock has a liquidation preference senior to Series B Preferred Stock.

On March 23, 2005, Arrowhead purchased 7,375,000 shares of Insert common stock from two minority stockholders of Insert for 502,260 newly issued shares of Arrowhead Common Stock. The Arrowhead Common Stock was valued at \$2,000,000 based on the closing market price of Arrowhead Common Stock on NASDAQ on March 23, 2005.

On March 31, 2005, Arrowhead sold 2,640,000 shares of its Series C Preferred Stock to qualified investors for \$1.00 per share. Net proceeds of the sale were \$2,424,924.

As of September 30, 2005 Arrowhead owns 68.5% of the outstanding, voting securities of Insert. To date, Arrowhead has provided \$4,000,000 of additional capital to Insert.

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

	<b>Year ended September 30, 2004</b>
	<b>(Unaudited)</b>
Revenue	\$ 268,281
Net loss	\$(3,132,555)
Loss per share	\$ (0.28)

Calando Pharmaceuticals, Inc.

On February 22, 2005, Arrowhead purchased a majority interest in a newly formed entity, Calando, represented by 4,000,000 shares of Calando's common stock for \$250,000. Calando and Insert have entered into a license agreement giving Calando exclusive rights to Insert's technology for the delivery and therapeutic use of RNAi in Calando's research, development and business efforts. A voting agreement between Arrowhead and certain shareholders in Calando gives the Company the right to designate a majority of Calando's Board of Directors.

Arrowhead owns 58.2% of the outstanding, voting stock of Calando. Arrowhead has direct ownership of 53.8% of the outstanding, voting stock of Calando and indirectly, through Insert, controls another 6.5% of the outstanding, voting stock.

To date, Arrowhead has provided \$1,750,000 of capital to Calando.

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### NanoPolaris, Inc.

On April 4, 2005, Arrowhead founded NanoPolaris as a wholly owned subsidiary of Arrowhead. NanoPolaris was initially capitalized with \$1,000. NanoPolaris will seek to generate revenue by licensing intellectual property to customers who will utilize nanotube technology in their products. NanoPolaris now controls commercialization of issued patents and patent applications claiming nanotube compositions of matter and general manufacturing techniques such as chemical vapor deposition synthesis, plasma chemical vapor deposition synthesis, purification, solubilization, separation of certain types of tubes, coating, functionalization and manipulation.

### Nanotechnica, Inc. - Discontinued Operations

On August 6, 2004 and September 22, 2004, Arrowhead invested a total of \$4 million in Nanotechnica to develop technology related to nanotechnology and microfluidics technology exclusively licensed from Caltech. Arrowhead owned 4,000,000 shares of Series A Preferred Stock in Nanotechnica, with such shares having a priority liquidation preference of \$4 per share.

In the third quarter of FY 2005, the Company determined that the progress being made by Nanotechnica in commercializing HPLC technology was not progressing satisfactorily and the market potential was uncertain. Therefore on June 3, 2005, a majority of the shareholders of Nanotechnica voted to dissolve the company. As a result of Arrowhead's liquidation preference as Series A Preferred Stockholders, \$2.8 million in cash was transferred back to Arrowhead along with \$213,000 of the other remaining assets. In accordance with Nanotechnica's license agreements, Nanotechnica returned two issued patents to Caltech and transferred the remaining patents to Arrowhead. Arrowhead has discontinued development efforts related to nanotechnology and microfluidics but is still reviewing possible market opportunities. The losses incurred by Nanotechnica are segregated on the Consolidated Statement of Operations as Losses From Dissolution of Nanotechnica. As of September 30, 2005, all material liabilities relating to the discontinued operations were paid. The dissolution of Nanotechnica resulted in a write off of patent cost (\$1,040,000) applicable to Nanotechnica offset by the reduction of the minority interest with a net effect of approximately \$100,000 on the Company's Consolidated Statement of Operations. Nanotechnica had no revenue in either FY 2004 or FY 2005.

### **NOTE 4: SHAREHOLDERS' EQUITY**

On January 26, 2005, after stockholder approval, the Company's Certificate of Incorporation was amended to increase the number of authorized shares of the Company to a total of 75,000,000 shares, consisting of 70,000,000 authorized shares of common stock, par value \$0.001, and 5,000,000 shares of authorized preferred stock. The number of authorized shares of the Company, prior to this Amendment, was 60,000,000 shares, consisting of 50,000,000 shares of authorized common stock and 10,000,000 shares of authorized preferred stock.

At September 30, 2005, 27,984,194 shares of common stock were outstanding. At September 30, 2005, 1,959,000 shares and 3,000,000 shares were reserved for issuance upon exercise of options granted under Arrowhead's 2000 Stock Option Plan and 2004 Equity Incentive Plan, respectively. Through September 30, 2005, options to purchase 1,959,000 shares have been granted under the 2000 Stock Option Plan and options to purchase 1,650,000 shares have been granted under the 2004 Incentive Plan.

In connection with the formation of the Company and two private placements, the Company issued approximately 13.8 million common stock purchase warrants (NASDAQ: ARWRW). Under the terms of the warrant, on May 4, 2005, the Company called the outstanding warrants for redemption. Substantially all of the outstanding warrants were exercised by June 2005 and the Company received approximately \$20.7 million in total exercise proceeds. The warrants not exercised were redeemed by the Company for \$0.001 per share.

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[Table of Contents](#)**NOTE 5: LEASES**

The Company leases the following facilities:

	<u>Lab/Office Space</u>	<u>Monthly Rent</u>	<u>Lease Commencement</u>	<u>Lease Term</u>
Arrowhead				
Pasadena (1)	3,500 sq ft	\$ 6,615	June 1, 2004	21 months
Pasadena (2)	8,000 sq ft	\$ 14,413	December 27, 2004	25 months
New York (3)	130 sq ft	\$ 1,675	September 15, 2005	12 months
Aonex	4,000 sq ft	\$ 6,810	July 1, 2004	24 months
Calando	2,755 sq ft	\$ 4821	May 16, 2005	24 months
Insert	7,000 sq ft	\$ 10,543	N/A	Month to month

- (1) Arrowhead leased new corporate office space in Pasadena on October 19, 2005 which it will occupy in the second quarter of FY 2006. (see Note 10).
- (2) In June 2005, Arrowhead assumed the responsibility for the Nanotechnica lease. The lease is being renegotiated, and Insert is expected to lease a portion of the Nanotechnica space and Arrowhead expected to occupy the rest. When Insert moves into the space, Insert's month to month lease will be terminated.
- (3) In September, Arrowhead opened an office in New York City and has one employee working out of that office. The rent for the first six months is \$1,675 per month. For the second 6 months the rent is \$3,350 per month.

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

At September 30, 2005, the future minimum commitments remaining under leases are as follows:

<u>Twelve months ending September 30</u>	<u>Facilities Leases</u>	<u>Equipment Leases</u>
2006	\$ 358,296	\$ 20,800
2007	\$ 93,000	\$ 20,800
2008 and beyond	\$ 0	\$ 14,541

Rent expense for the years ended September 30, 2005 and 2004 was \$455,241 and \$83,829 respectively. From inception to date, rent expense has totaled \$526,739.

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**NOTE 6: COMMITMENTS AND CONTINGENCIES – SUBSIDIARIES AND SPONSORED RESEARCH**

**Subsidiaries**

As of September 30, 2005, Arrowhead held a majority of the voting stock of the following four subsidiaries (the “Subsidiaries”):

<u>Subsidiary</u>	<u>% Ownership</u>	<u>Technology/Product Focus</u>
Aonex Technologies, Inc. <i>founded April 20, 2004</i>	80.0%	Semiconductor nanomaterial process with initial emphasis on high efficiency solar cells
Insert Therapeutics, Inc. <i>acquired June 4, 2004</i>	68.5%	Nano-engineered drug delivery system, preparing for clinical trials with first anti-cancer compound
Calando Pharmaceuticals, Inc. <i>founded February 20, 2005</i>	58.2%*	Nano-engineered RNAi Therapeutics
NanoPolaris, Inc. <i>founded April 4, 2005</i>	100.0%	Developing strategic opportunities for the commercialization of nanotube-based products.

\* Arrowhead has direct ownership of 53.8% of the outstanding, voting stock of Calando and indirectly, through Insert, controls another 6.5% of the outstanding, voting stock.

Except for NanoPolaris which is wholly-owned by Arrowhead, Arrowhead provided capital and has the option to provide additional capital in exchange for a majority-interest in each Subsidiary, as well as, the right to appoint a majority of each Subsidiary’s Board of Directors. In the event that Arrowhead does not put in additional capital, Arrowhead will forfeit a specified portion of its interest in lieu of additional future funding.

The following table summarizes the terms and status of these additional capital contributions:

<u>Subsidiary</u>	<u>Amount subject to agreements to provide additional capital</u>	<u>Estimated time period for additional capital contributions</u>
Aonex Technologies, Inc	\$ 1,000,000	6 months(1)
Insert Therapeutics, Inc.	\$ 0	(2)
Calando Pharmaceuticals, Inc.	\$ 2,000,000	4 months (3)

- (1) Under its Agreement to Provide Additional Capital with Aonex, Arrowhead has the right to provide Aonex up to \$1,000,000 in additional capital on or before the attainment of certain milestones.
- (2) Arrowhead has made all required capital contributions to Insert .
- (3) Under its Agreement to Provide Additional Capital with Calando, Arrowhead has the right to provide Calando up to \$2,000,000 in additional capital on or before February 1, 2006.

If Arrowhead has not provided all the capital contributions under an Agreement to Provide Additional Capital to a Subsidiary, and elects not to provide additional capital to a subsidiary, Arrowhead can forfeit a specified portion of its interest. The following is a summary of the terms of the ownership not subject to forfeiture as of September 30, 2005 for each subsidiary:

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<u>Subsidiary</u>	<u>Capitalization as of June 30, 2005</u>	<u>Potential Additional Capitalization</u>	<u>% Interest not subject to Forfeiture</u>
Aonex Technologies, Inc.	\$ 4,000,000	\$ 1,000,000(1)	80%
Insert Therapeutics, Inc.	\$ 5,000,000	\$ 0	100%
Calando Pharmaceuticals, Inc.	\$ 2,000,000	\$ 2,000,000(2)	25%
NanoPolaris, Inc.	\$ 1,000	\$ 0(3)	100%

- (1) If Aonex meets its milestones and Arrowhead elects not to provide additional capital, Arrowhead would forfeit proportional ownership interest. If Aonex fails to meet the agreed to milestones, Arrowhead would not forfeit ownership interest even if Arrowhead elected not to provide additional capital.
- (2) Additional capital contributions to Calando may be made subject to a schedule that has been mutually agreed to by Arrowhead and Calando. If Arrowhead elects not to provide additional capital, Arrowhead would forfeit proportional ownership interest.
- (3) No Agreement to Provide Additional Capital exists between Arrowhead and NanoPolaris.

***Outsourced Research and Development***

Outsourced Sponsored Research Expense for the years ended September 30, 2005 and 2004 was \$945,685 and \$364,378 respectively.

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**Sponsored Research Agreements - Caltech**

The terms of three sponsored research agreements between Arrowhead and the California Institute of Technology (“Caltech”) are summarized in the following table:

Research Project	Period covered	Total estimated project cost	Annual Cost	Amount paid as of September 30, 2005	Prepaid Amt as of September 30, 2005
Drug Discovery & Diagnostics (Dr. C. Patrick Collier)	Oct. 1, 2003-Sept. 30, 2008 (5 years)	\$1,393,806	\$ 280,292	\$ 516,823	\$ 81,667
Nanoelectronics (Dr. Marc Bockrath)	Jan. 1, 2004-Dec. 6, 2005	\$ 243,000	\$ *	\$ 283,500	\$ 0
Nanofilms (Dr. Harry Atwater)	Jan. 2, 2004-Dec. 6, 2005	\$ 431,400	\$ *	\$ 525,780	\$ 0

\* These two research projects were terminated on October 6, 2005 and all funding will cease on December 6, 2005. The projects were terminated as part of Arrowhead’s annual review of the progress being made toward commercializable prototypes. In the opinion of management, the projects would not have resulted in intellectual property or prototype around which a company could be established. Dr. Atwater is a founder and shareholder of Aonex.

During the second quarter of FY 2005, the terms of each agreement were amended to allow for quarterly rather than annual funding for these research projects. The terms of the agreements call for funding, 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 by either party on 60-days written notice with an obligation to satisfy outstanding obligations at the time of cancellation.

As of September 30, 2005, the Company had funded to Caltech a total \$1,326,103 for research and development costs under these research agreements. These costs are amortized over the time period of each agreement and relate to technology development and application research.

In June 2005, Insert made a contribution of \$75,000 to Caltech for laboratory research in the field of synthetic polymers for use primarily in drug delivery applications. Caltech has granted Insert an exclusive license to the patent rights and improvements in the field of synthetic polymers for drug delivery.

**Sponsored Research Agreement - Stanford**

Arrowhead has exclusively licensed intellectual property from Stanford University for a nanotech device designed to control the behavior of stem cells. Arrowhead has agreed to fund additional research involving the device at Stanford in exchange for the right to exclusively license and commercialize the technology.

Research Project	Period covered	Total estimated project cost	Annual Cost	Amount paid as of September 30, 2005	Prepaid Amt as of September 30, 2005
Microchip-based Biological Signal Delivery (Dr. Nicholas Melosh)	07/01/05 - 06/30/07 (2 years)	\$600,000	\$ 300,000	\$ 110,000	\$ 10,000

Arrowhead paid \$110,000 in the 4<sup>th</sup> quarter FY 05 and the remainder is payable quarterly over the following two years.

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**Sponsored Research Agreement - Lucile Packard Children's Hospital**

Arrowhead has also agreed to contribute \$100,000 over the next year to the Lucile Packard Children's Hospital to fund a project to identify how new technologies, such as nanotechnology and stem cell technology, can address existing clinical needs. This amount will be paid at a rate of \$25,000 per quarter from July 1, 2005 through June 30, 2006.

**NOTE 7. STOCK OPTIONS**

Stock-Based Compensation - Arrowhead has two plans that provide for the granting of equity-based compensation. Under the 2000 Stock Option Plan, 1,789,000 shares of Arrowhead's common stock are reserved for issuance upon exercise of non-qualified stock options. The 2004 Incentive Plan reserves 3,000,000 shares for the grant of stock options, stock appreciation rights, restricted stock awards and performance unit/share awards by the Board of Directors to employees, consultants and others expected to provide significant services to Arrowhead. The Company's stockholders approved the 2004 Equity Incentive Plan on January 20, 2005. Pursuant to this approval, no further grants may be made under the 2000 Stock Option Plan. During the year ended September 30, 2005, 1,650,000 options were granted under the 2004 Equity Incentive Plan.

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."

The following tables summarize information about stock options:

	<u>Number of Options Outstanding</u>	<u>Weighted- Average Exercise Price Per Share</u>
Balance at May 7, 2003	—	—
Granted	150,000	0.20
Canceled	—	—
Exercised	—	—
	<hr/>	<hr/>
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
	<hr/>	<hr/>
Balance at September 30, 2004	1,539,000	1.00
Granted	2,095,000	2.53
Canceled	(170,000)	1.00
Exercised	(25,000)	1.00
	<hr/>	<hr/>
Balance at September 30, 2005	3,439,000	1.93
	<hr/>	<hr/>
Exercisable at September 30, 2005	811,750	

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**Arrowhead Research Corporation**  
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<u>Exercise Price</u>	<u>Number of Options</u>	<u>Weighted Average Remaining Life in Years</u>	<u>Weighted Average Exercise Price</u>
\$1.00 – 3.00	3,439,000	9.1	\$ 1.93

At September 30, 2005, there were 1,350,000 options available for future grants under the 2004 Equity Incentive Plan.

The fair value of the options granted by Arrowhead for the year ended September 30, 2005 is estimated at \$1,993,525.

The aggregate fair value of options issued by Aonex, Calando, and Insert for FY 2005 is estimated at \$64,460.

The fair value of options was estimated at the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions: dividend yield of 0%, expected volatility of 30%, risk-free interest rate of 4.5% to 5.25%, and expected life of five years. The weighted-average fair value of options granted by Arrowhead for the year ended September 2005 was estimated at \$0.95 and the weighted-average exercise price was estimated at \$2.53.

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. The expense booked in relationship to options granted to employees and non-employees during the year ended September 30, 2005 was \$278,620.

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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 \$230,962 and the loss per share would have increased by \$0.02 per share for the year ended September 30, 2005.

	<u>YTD 2005</u>	<u>YTD 2004</u>
Net Loss as reported	(6,624,824)	(2,496,948)
Add: Stock-based compensation expense included in reported net loss	279,488	142,572
Deduct: Total stock-based compensation expense determined under Fair value based method for all awards	(509,582)	(176,653)
Pro forma	(6,854,918)	(2,530,029)
Basic and Diluted Loss per share		
As reported	\$ (0.35)	(0.23)
Pro forma	\$ (0.37)	(0.23)

**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.

For the years ended September 30, 2005 and 2004, the Company had consolidated losses of \$6,624,824 and \$2,496,948 respectively. The losses result in a deferred income tax benefit of approximately \$2,617,000 for FY 2005 and \$986,000 for FY 2004, offset by an increase in the valuation allowance for the same amount for Arrowhead. 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: SEGMENT AND GEOGRAPHIC REPORTING**

The Company accounts for segments and geographic product and licensing revenues in accordance with SFAS No. 131, "Disclosure about Segments of an Enterprise and Related Information." The Company's reportable segments are strategic business units that offer different products and services.

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Grant and collaborations agreements are not considered to be product or licensing revenue as the Plan of Operations for the Company is to sell products and/or license technology. The grant revenue is a way to fund and to offset development costs. In the third quarter of FY 2005, Arrowhead's subsidiary, Calando booked the first commercial license agreement totaling \$150,000 covering the period June 15, 2005 through June 14, 2006. License fees of \$43,750 were booked as revenue in FY 2005. The customer is located in North America.

**NOTE 10. RELATED PARTY TRANSACTIONS**

There were no related party transactions in FY 2005.

In FY 2004 there were two related party transactions.

(1) James M. Phillips, Jr., director and secretary of the Company was paid a monthly retainer of \$4,500 per month for legal services. Mr. Phillips retired and resigned from all positions with the Company, 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.

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

**NOTE 11. SUBSEQUENT EVENTS**

On October 19, 2005, the Company entered into a lease for a new corporate headquarters in Pasadena California. The term of the lease is for 62 months beginning about March 1, 2006 and the space leased is approximately 7,300 rentable square feet. The total lease commitment for the 5 years and two months is approximately \$1.045 million.

On November 3, 2005, Arrowhead agreed to provide \$680,000 to fund a two year research effort in the labs of Dr. Jie Liu at Duke University. The research will focus on the development of a CMOS compatible method to fabricate nanotube interconnects to enable further miniaturization of integrated circuits.

On November 14, 2005, Dr. Leon Ekchian joined the Company as its President. Dr. Ekchian was elected to the Board of Directors on December 8, 2005. Mr. Bruce Stewart continues with the Company as its Chairman and Chief Executive Officer.

*See Report of Independent Registered Public Accounting Firm.*

**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 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 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 small business issuer as of, and for, the periods presented in this report;

4. The small business issuer's other certifying officer 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 small business issuer 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 small business issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the small business issuer's disclosure controls and procedures and presented in this 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 report any change in the small business issuer's internal control over financial reporting that occurred during the small business issuer's most recent fiscal quarter (the small business issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the small business issuer's internal control over financial reporting; and

5. The small business issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the small business issuer's auditors and the audit committee of small business issuer's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the small business issuer'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 small business issuer's internal control over financial reporting.

Date: December 22, 2005

/s/ R. BRUCE STEWART

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**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 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 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 small business issuer as of, and for, the periods presented in this report;

4. The small business issuer's other certifying officer 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 small business issuer 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 small business issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the small business issuer's disclosure controls and procedures and presented in this 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 report any change in the small business issuer's internal control over financial reporting that occurred during the small business issuer's most recent fiscal quarter (the small business issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the small business issuer's internal control over financial reporting; and

5. The small business issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the small business issuer's auditors and the audit committee of small business issuer's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the small business issuer'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 small business issuer's internal control over financial reporting.

Date: December 22, 2005

/s/ JOSEPH T. KINGSLEY

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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.



**SECTION 1350 CERTIFICATION**

In connection with the Annual Report on Form 10-KSB of Arrowhead Research Corporation (the "Company") for the fiscal year ended 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 22, 2005

/s/ R. BRUCE STEWART

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**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 fiscal year ended 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 22, 2005

/s/ JOSEPH T. KINGSLEY

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**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.