

ARROWHEAD RESEARCH CORP

Form 10-K

December 14, 2007

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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 20549

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**FORM 10-K**

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(Mark One)

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

For the fiscal year ended September 30, 2007.

**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

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**ARROWHEAD RESEARCH CORPORATION**

(Exact name of registrant as specified in its charter)

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Delaware  
(State of incorporation)

201 S. Lake Avenue, Suite 703

Pasadena, California 91101

(626) 304-3400

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

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(Address and telephone number of principal executive offices)

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$0.001 par value	The NASDAQ Global Market

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

None

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Indicate by a check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by a check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not 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-K or any amendment to this Form 10-K.

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer  Non-accelerated filer

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

Issuer's revenue for its most recent fiscal year: \$1,208,022.

The aggregate market value of issuer's outstanding Common Stock held by non-affiliates was approximately \$149,788,033 based upon the bid price of issuer's Common Stock on March 30, 2007.

As of December 11, 2007, 38,610,420 shares of the issuer's Common Stock were outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive proxy statement, expected to be filed with the Commission no later than January 28, 2008, for the registrant's 2008 Annual Meeting of Stockholders to be held March 13, 2008, are incorporated by reference into Part III of this report.

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**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

*This Annual Report on Form 10-K contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and we intend that such forward-looking statements be subject to the safe harbors created thereby. For this purpose, any statements contained in this Annual Report on Form 10-K except for historical information may be deemed to be forward-looking statements. Without limiting the generality of the foregoing, words such as may, will, expect, believe, anticipate, intend, could, estimate, or continue or the negative or other variations thereof or comparable terminology are intended to identify forward-looking statements. In addition, any statements that refer to projections of our future financial performance, trends in our businesses, or other characterizations of future events or circumstances are forward-looking statements.*

*The forward-looking statements included herein are based on current expectations of our management based on available information and involve a number of risks and uncertainties, all of which are difficult or impossible to predict accurately and many of which are beyond our control. As such, our actual results may differ significantly from those expressed in any forward-looking statements. Factors that may cause or contribute to such differences include, but are not limited to, those discussed in more detail in Item 1 (Business) and Item 1A (Risk Factors) of Part I and Item 7 (Management's Discussion and Analysis of Financial Condition and Results of Operations) of Part II of this Annual Report on Form 10-K. Readers should carefully review these risks, as well as the additional risks described in other documents we file from time to time with the Securities and Exchange Commission. In light of the significant risks and uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by us or any other person that such results will be achieved, and readers are cautioned not to place undue reliance on such forward-looking information. Except as may be required by law, we undertake no obligation to revise the forward-looking statements contained herein to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.*

**WHERE YOU CAN FIND MORE INFORMATION**

As a public company, we are required to file annual, quarterly, and current 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 100 F Street, N.E., 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 at the SEC's website at [www.sec.gov](http://www.sec.gov). Please call the SEC at 1-800-732-0330 for further information on the Public Reference Room. We also provide copies of our Forms 8-K, 10-K, 10-Q, Proxy Statements and Annual Reports 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.

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**PART I**

**ITEM 1. BUSINESS**

***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 Research and its Subsidiaries, whether conducted through Arrowhead Research or a subsidiary of the company Arrowhead Research, (3) the term ARC refers to Arrowhead Research Corporation, a privately-held California corporation with which Arrowhead Research consummated a stock exchange transaction in January 2004, and (4) the term Common Stock refers to Arrowhead Research's Common Stock and the term stockholder(s) refers to the holders of Common Stock or securities exercisable for Common Stock.*

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 owners of ARC, a privately-held California corporation. This transaction is referred to as the Share Exchange. Upon consummation of the Share Exchange, the owners of ARC acquired approximately 89% of the Common Stock of the Company. InterActive changed its name to Arrowhead Research Corporation and ARC was subsequently dissolved. The Company's principal executive offices are located at 201 South Lake Avenue, Suite 703, Pasadena, California 91101, and its telephone number is (626) 304-3400. As of September 30, 2007, Arrowhead Research Corporation had 12 full-time employees at the corporate office and 46 full-time employees at its Subsidiary companies.

***Overview***

Arrowhead Research Corporation is a development stage nanotechnology company commercializing new technologies in the areas of life sciences, electronics, and energy. Arrowhead's mission is to build value through the identification, development and commercialization of nanotechnology-related products and applications. The Company works closely with universities to source early stage deals and to generate rights to intellectual property covering promising new nanotechnologies. Arrowhead takes a portfolio approach by operating multiple subsidiaries which allows the pursuit of multiple opportunities and diversifies risk. Currently, Arrowhead operates five majority owned Subsidiaries (the Subsidiaries ) focused on developing and commercializing nanotechnology products and applications and has funded a number of prototype development efforts in leading university labs in exchange for the exclusive right to license the technology developed in such labs.

***Nanotechnology***

Nanotechnology involves the investigation and design of materials and devices at the atomic and molecular levels. The engineering of materials and devices at the nanoscale is expected to unleash fundamental paradigm shifts in a range of different industries. Large multinational corporations are investing heavily in commercialization efforts and the federal government has funded an aggregate of \$8 billion for nanoscale science and engineering projects since 2001. Already, nanomaterials are being used to make stain resistant and wrinkle free clothing, lighter and stronger baseball bats, and more durable epoxies and paints. Although nanotechnology is likely to impact virtually every industry ranging from textiles to aerospace, we believe that the most far-reaching impacts of nanoscience will be in life sciences/pharmaceuticals, electronics, and energy.

Nanotechnology is contributing to advancements in life sciences, including applications in drug development and delivery, diagnostics, stem cell therapeutics, and personalized medicine. Recent breakthroughs in life sciences such as the sequencing of the human genome, the discovery of RNA interference (RNAi), and advances in stem cell techniques are enabling new understanding of diseases and approaches to treatments. Nanotechnology involves engineering on a molecular level. Biological processes happen at the molecular scale. Nanotechnology combines the traditional disciplines of chemistry, materials science, physics, and biology and enables the manipulation of matter in powerful new ways. Using the knowledge from all of these disciplines,

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medicines and diagnostic agents are being designed to interact with cells and tissues with a high degree of specificity and functionality.

The electronics industry is leveraging nanomaterials in devices that are faster, cheaper, more flexible, and consume less energy. Electronic materials and devices used over the past several decades have reached their performance limits. Additionally, because traditional electronic materials such as indium tin oxide, copper, aluminum, and silicon are mined, supplies of these materials are finite and subject to shortages. Nanomaterials are likely to be used to enhance the performance of traditional electronic products and to address technological challenges encountered by existing electronics manufacturers.

In energy, nanotechnology is enabling the manufacture of new kinds of solar cells, fuel cells, batteries, and super capacitors. Existing solar cells based on crystalline silicon are bulky and expensive. If successfully developed, solar cells incorporating nanomaterials could be cheaper, lighter and more flexible. Similarly, nanomaterials could yield new light emitting diodes (LEDs) that are brighter and consume less power than existing sources of lighting. Nanostructured materials promise to give rise to new batteries that last longer, have more energy, and are a fraction of the size of conventional batteries.

### ***Sponsored Research***

Arrowhead is taking advantage of a key trend in technology innovation. More and more in recent years, fueled by government and private funding, major new discoveries and product inventions are happening at universities rather than in the research and development divisions of large corporations. Universities are patenting and licensing these inventions through technology transfer offices, and academic researchers have become interested in commercialization of their work.

In exchange for the exclusive right to license the technology developed in sponsored laboratories, Arrowhead has worked with some of the most outstanding academic institutions in the country, including the California Institute of Technology (Caltech), Stanford University, Duke University and the University of Florida, in critical areas such as stem cell research, carbon electronics, and molecular diagnostics. By funding university research, Arrowhead has the ability to ascertain the probability of technical success at relatively low research cost and, if warranted, continue cost effective development at the university by leveraging the existing resources available to scientists at universities, such as laboratories and equipment, as well as operating in an atmosphere that encourages the exchange of ideas. Moreover, the cultivation of relationships in the academic community provides an additional window into other promising technologies.

### ***Majority-owned Subsidiaries***

Arrowhead owns majority interest in its Subsidiaries, securing substantial participation in any success. Each subsidiary is staffed with its own technical and business team that focuses on its specific technology and markets, while Arrowhead provides financial, strategic, and administrative resources. The Company's five majority owned Subsidiaries are focused on developing and commercializing a variety of nanotechnology products and applications, including anti-cancer drugs, RNAi therapeutics, carbon-based electronics, fullerene anti-oxidants and compound semiconductor materials. In the near term, Arrowhead expects to add to its portfolio through selective acquisition and formation of new companies.

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As of September 30, 2007, Arrowhead held a majority of the outstanding, voting stock of the following five operating subsidiaries (the Subsidiaries ):

Subsidiary	Ownership*	Technology/Product Focus
Insert Therapeutics, Inc. <i>acquired June 4, 2004</i>	64.2%	Nano-engineered drug delivery system in clinical trials with first anti-cancer compound
Calando Pharmaceuticals, Inc. <i>founded February 22, 2005</i>	69.8%	Nano-engineered RNAi therapeutics
Unidym, Inc. (formerly NanoPolaris) <i>founded April 4, 2005</i>	60.1%	Developing strategic opportunities for the commercialization of nanotube-based products
Tego Biosciences Corporation <i>acquired April 20, 2007</i>	100.0%	Development of protective products based on the anti-oxidant properties of buckminsterfullerenes
Aonex Technologies, Inc. <i>founded April 20, 2004</i>	80.0%	Semiconductor nanomaterials with initial emphasis on high efficiency solar cells

(\*) Each Subsidiary maintains a stock option plan to help motivate and retain employees. In addition, Insert has outstanding warrants, primarily issued in connection with a financing transaction completed in October 2006. As of September 30, 2007, assuming all options in each Subsidiary plan were awarded and exercised and all warrants were exercised, the Company would own approximately 57.0% of Insert, 63.9% of Calando, 42.1% of Unidym, 59.5% of Tego and 50.0% of Aonex.

Arrowhead has entered into a funding agreement to provide future additional capital to Calando. The agreement gives Arrowhead the right to provide additional capital to Calando or to forfeit a specified portion of its interest in lieu of additional future funding. In deciding whether to make an additional capital contribution, the Company looks at such factors as progress toward a milestone and what the management is doing and how management is doing with their spending plan. The Company works closely with the subsidiaries' senior management and the decision regarding funding milestones is made well in advance of the milestone date or event. Should Calando meet their milestones and the Company decides not to fund further, the Company would still own a majority of the outstanding voting securities of Calando.

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

Subsidiary	Total Capital Assuming all	Future Capital	Time for Additional Capital Contributions
Calando Pharmaceuticals, Inc.	\$ 14,000,000	\$ 6,000,000	12 months(1)

(1) Under its Agreement to Provide Additional Capital with Calando, Arrowhead has the right to provide Calando up to \$6,000,000 in additional capital based upon the achievement of certain development milestones. The first milestone payment of \$3,000,000 is projected to be due during the first quarter of fiscal 2008. The last of these milestone payments for \$3,000,000 is projected to be due during the fourth quarter of fiscal 2008.

**Detail Subsidiary Discussions**

At September 30, 2007, Insert Therapeutics, Inc. and Calando Pharmaceuticals, Inc. were separate subsidiaries. On October 31, 2007, Arrowhead announced that Mr. Larry Stambaugh was hired as President and Chief Executive Officer of both subsidiaries and that a merger between the two subsidiaries is being pursued. Mr. Stambaugh was also elected to the Board of Directors of each Insert and

**Calando. For purposes of this 10K, each subsidiary will be discussed separately.**



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

#### **General**

Insert has licensed a proprietary drug delivery platform technology based on a nano-engineered class of linear cyclodextrin-containing polymers from Caltech and has further developed the technology into CycloSert<sup>®</sup>, a proprietary drug delivery system. Cyclodextrins (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. By enabling the manipulation of particle size and other characteristics of cyclodextrin, Insert has been able to improve drug properties and performance. The CycloSert delivery platform has been designed to 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 "undruggable" 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 is designed to provide 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.

Insert's lead anti-cancer drug candidate (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 to its poor solubility, unfavorable pharmacokinetics, and unintended interactions with elements found in human blood. Despite serious side effects, analogs of camptothecin that have been modified primarily to improve their solubility are widely marketed as therapeutics for colorectal, ovarian, and lung cancers. 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 a way that facilitates the release of active camptothecin inside the cell. This provides 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 filed its Investigational New Drug (IND) application for IT-101 with the Food & Drug Administration in February 2006, and commenced its first human clinical trials at City of Hope Cancer Center in July 2006. The National Cancer Institute (NCI) has designated City of Hope as a Comprehensive Cancer Center which indicates that this institution has undergone a rigorous peer review process, and has been found to be worthy of this high level of recognition shared by only a few institutions nationwide. The clinical trial is designed to assess the safety, toxicity, maximum tolerated dose and pharmacokinetics of IT-101, with secondary endpoints to assess tumoral response and anti-tumor activity. It is open to patients with non-resectable solid tumors who have failed existing standard therapies and who meet other specified criteria. The clinical trial is ongoing.

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

#### **The Oncology Market**

Cancer is characterized by rapid, uncontrolled cell division resulting in the growth of an abnormal mass of cells generally referred to as a malignant tumor. Cancerous tumors can arise in almost any tissue or organ, and cancer cells, if not eradicated, can spread, or metastasize, throughout the body. As these tumors grow, they cause damage to the surrounding tissue and organs and commonly result in death if left untreated. Cancer is believed to occur as a result of a number of hereditary and environmental factors. According to the American Cancer Society, cancer is the second leading cause of death in the United States and accounts for approximately one in every four deaths. Between 500,000 and 600,000 Americans die of cancer each year. The National Institutes of Health estimated the direct medical cost of cancer to be in excess of \$74 billion per year.

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### **IT-101**

Insert's lead product, IT-101, is a chemotherapy drug candidate. Camptothecin, the active ingredient in IT-101, is a member of the topoisomerase I class of chemotherapy drugs. Topoisomerase inhibitors interfere with DNA synthesis and eventually lead to cell death. There are currently two marketed hydrophilic (water-soluble) camptothecin analogs that are based on chemical modifications to the native camptothecin molecule. Irinotecan, which is marketed under the name Camptosar<sup>®</sup>, is indicated for treatment of colorectal cancer. Topotecan, which is marketed under the name Hycamtin<sup>®</sup>, is indicated for treatment of ovarian and non-small cell lung cancers. These drugs generate annual worldwide sales estimated to be in excess of \$1.1 billion. IT-101, if approved, would address a portion of this market depending on the approved indication(s). Camptothecins are among the most important classes of anti-cancer drugs introduced in recent years. However, the marketed camptothecin analogs pose substantial challenges in terms of efficacy, tolerability and difficulty of use. Insert's objective with IT-101 is to provide a product that has enhanced tolerability and anti-tumor activity compared with the approved products.

Insert commenced Phase I clinical trials to evaluate the safety, toxicity and pharmacokinetics of IT-101 at the City of Hope National Cancer Center in Duarte, California, in July 2006. Secondary endpoints to be evaluated include anti-tumor activity. Insert expects that the trial will be completed in 2008.

In October 2007, Insert's lead anti-cancer compound, IT-101, was featured in a public television documentary series produced by Thirteen/WNET New York and the California Institute of Technology (Caltech). The documentary chronicles the early research on IT-101 by Dr. Mark Davis, the Founder of Insert Therapeutics and Professor of Chemical Engineering at Caltech. The show also follows the progress of the first patient in the IT-101 clinical trial.

### **Research and Preclinical Development**

Insert has invested in the research and development of new product candidates, including those that could extend the application of its proprietary drug delivery technology, CycloSert<sup>®</sup>. Research and development efforts on these pipeline candidates are preliminary, and there is no assurance that any of these compounds will be successful or will progress to clinical trials. Advancing these development candidates into human clinical trials is dependent on several factors, including technological feasibility and commercial opportunity as well as the availability of financial resources. It is difficult to evaluate the potential markets for these product candidates as the areas of potential application are diverse and specific applications are yet to be determined.

In addition to internal research and development efforts, we may consider acquisitions of other products, development candidates or technologies to expand Insert's pipeline and capabilities.

When developing new products, we may consider a variety of factors, including:

Potential pricing and gross margins

Existing and potential market size

High barriers to entry

Patent expiration dates

Manufacturing capabilities and access to raw materials

Potential development and competitive challenges

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How a potential product will fit within our existing array of products under development, and what synergies may exist

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### **Collaboration and Licensing Arrangements**

Insert is internally focused on using its technology to develop and commercialize proprietary conjugates of Cycloset with select small-molecule drugs and peptides, initially in the oncology area. With its ability to deliver a wide range of therapeutic payloads, ranging from small molecules to proteins and peptides, Insert's Cycloset technology platform has applications well beyond Insert's capacity to develop internally. Consequently, research and development collaborations with pharmaceutical and biotech companies to deploy our technology with other therapeutics are continually sought, whether for the purpose of extending the life cycle of currently-marketed drugs, or to resolve delivery challenges of new chemical entities.

One investigational drug that Insert Therapeutics investigated in collaboration with German-based R&D Biopharmaceuticals, uses the Cycloset system to deliver a potent anticancer agent called tubulysin A. Tubulysin A is a naturally occurring substance produced by myxobacteria. It is highly active against many types of cancer cells, targeting the cellular structures called microtubules, which play a crucial role in cell division. Used by itself, tubulysin A is an effective anti-tumor agent, but it is also highly toxic. By combining it with the Cycloset transport system, researchers are aiming to make it non-toxic while preserving its anti-tumor activity. In vitro studies showed the tubulysin-Cycloset conjugate to be effective against multiple human cancer cell lines. The conjugate was found to be stable and 100 times more water soluble than the free drug. Water solubility is essential for efficient delivery of drugs through the bloodstream. Tubulysin A is already better than many comparable agents in this respect, and preclinical studies have shown significant improvement in solubility when tubulysin-A is combined with Cycloset.

In trials on animals, the tubulysin-Cycloset conjugate was well tolerated, in contrast to tubulysin A alone, which was highly toxic and caused 50% mortality. The conjugate was also compared to vinblastine, an agent with a similar mechanism of action to tubulysin A. Vinblastine was found to be significantly less effective as an anti-tumor agent.

### **Manufacturing**

Insert currently uses, and expects to continue to be dependent upon, contract manufacturers to manufacture each of its product candidates. Insert has established a quality control and quality assurance program, including a set of standard operating procedures and specifications, designed to ensure that its products are manufactured in accordance with current Good Manufacturing Procedures, or cGMPs, and other applicable domestic and foreign regulations. Additional manufacturing resources will require additional investment, and Insert may seek to enter into additional collaborative arrangements with other parties that have established manufacturing capabilities. Insert expects to continue to rely on third-party manufacture of its development and commercial products on a contract basis. Currently, Insert has agreements with third-party vendors to furnish IT-101 drug supply for clinical studies. Insert will be dependent upon these third-parties to supply it in a timely manner with products manufactured in compliance with cGMPs or similar standards imposed by foreign regulatory authorities where our products are tested and/or marketed.

### **Competition**

The healthcare industry in general is characterized by extensive research efforts, rapid technological change and intense competition. Other pharmaceutical companies will compete with Insert in areas of research and development, acquisition of products and technology licenses, and the manufacturing and marketing of products that could potentially compete with Insert's products. Competition will be based on safety, efficacy, ease of administration, breadth of approved indications, price, reimbursement and physician and patient acceptance.

In addition to the already-approved irinotecan and topotecan, other companies are developing camptothecin formulations with a goal of delivering a more effective and tolerable therapy than the approved camptothecin-based products. Sonus Pharmaceuticals is currently conducting a Phase I trials for its SN2310 Injectable Emulsion (camptothecin suspended in a vitamin E emulsion). Mersana Therapeutics, Inc. is currently conducting a Phase I clinical trial with a polymer, camptothecin conjugate.

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Insert's ability to successfully compete in the biotechnology and pharmaceutical industries will be based on its ability to do the following:

Create and maintain advanced formulation technologies

Develop proprietary products

Attract and retain key scientific personnel

Obtain patent or other intellectual property protection for products

Obtain required regulatory approvals

Manufacture, market and/or license our products alone or with collaborative partners

Insert faces competition from a variety of companies focused on developing oncology drugs. Insert competes with large pharmaceutical companies and with other specialized biotechnology companies, including but not limited to Cell Therapeutics, Sonus Pharmaceuticals, Mersana Therapeutics, Abraxis Biosciences, Bristol-Myers Squibb Co., Sanofi-Aventis, Genentech, Lilly and Novartis. Many of Insert's competitors and potential competitors have substantially greater financial, technical and human resources than Insert and have substantially greater experience in developing products, obtaining regulatory approvals and marketing and manufacturing products. Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical and established biotechnology companies. Many of these competitors have products that have been approved or are in development and operate large, well-funded research and development programs. Companies that complete clinical trials, obtain required regulatory approvals and commence commercial sales of their products before their competitors may achieve a significant competitive advantage if their products work through a similar mechanism as Insert's products. In addition, other technologies or products may be developed that have an entirely different approach that would render Insert's technology and products noncompetitive or obsolete.

## **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 licensed its Cyclosert delivery technology to an affiliate company, Calando Pharmaceuticals Inc., for the development and commercialization of RNAi therapeutics. Under the terms of the license, Insert received an equity stake in Calando. Insert is also entitled to royalties and sublicensing fees on the sales of products covered by the licensing agreement.

## **Key Personnel**

On November 1, 2007, Larry G. Stambaugh was appointed as President and Chief Executive Officer of two of the Company's majority-owned subsidiaries, Insert Therapeutics, Inc. and Calando Pharmaceuticals, Inc. Mr. Stambaugh is the former Chairman, CEO and co-founder for Maxim Pharmaceuticals, Inc. At Maxim, he established a public, global biopharmaceutical company with a pipeline of product candidates for life-threatening cancers and liver diseases. During his time with Maxim, he took the company public in the U.S. and Europe, conducted 17 clinical trials, including four phase 3 studies in over 20 countries, established several corporate partnerships with large pharmaceutical companies and acquired a promising biotechnology company. In 2006, he merged Maxim with an East Coast biotech company. From the time of the 2006 merger until his appointment at Insert and Calando, Mr. Stambaugh was a consultant to emerging biotech and biopharma companies. Prior to his tenure at Maxim, he was the Chairman, President and CEO for ABC Laboratories, a world-leading environmental research laboratory serving Fortune 100 pharmaceutical and chemical companies. Mr. Stambaugh has worked as a top executive in banking, manufacturing, and retail and began his career at KPMG. He has a B.B.A. from Washburn University and is a C.P.A.



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Until October 31, 2007, Insert's corporate and business activities were led by John Petrovich. Mr. Petrovich continues to serve as the Executive Vice President of each Insert and Calando and is involved with management, strategic planning, legal and fundraising activities of Insert.

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

Insert's board of directors is comprised of Mark Davis, who also serves as a director of Calando, R. Bruce Stewart, who also serves as Executive Chairman of Arrowhead, and Edward W. Frykman, who also serves as a director of Arrowhead. Mr. Stambaugh was elected to the board of Insert on November 1, 2007, concurrently with his appointment as CEO of Insert.

As of September 30, 2007, Insert had 14 employees, all of whom were full time, not including Mr. Petrovich who also served as Chief Executive Officer and President of Calando until October 31, 2007.

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

#### **General**

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.

RNA interference, or RNAi, is a naturally occurring mechanism within cells for selectively silencing and regulating specific genes. Since many diseases are caused by the inappropriate activity of specific genes, the ability to silence genes selectively through RNAi could provide a new way to treat a wide range of human diseases. RNAi is induced by small, double-stranded RNA molecules. One method to activate RNAi is with chemically synthesized small interfering RNAs, or siRNAs, which are double-stranded RNAs that are targeted to a specific disease-associated gene. The siRNA molecules are used by the natural RNAi machinery in cells to cause highly targeted gene silencing.

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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, taken up by the cell and released inside the cell.

Calando has conducted and published results of preclinical studies with various collaborators to test the safety and efficacy of the siRNA delivery system and Calando's siRNA therapeutic candidate. Studies conducted with Caltech and the Children's Hospital of Los Angeles published in October 2005 reported sequence specific, anti-tumor effects and conclusive evidence of molecular targeting to and within tumor cells by using Calando's delivery system. In the March 2007 Proceedings of the National Academy of Sciences, data was published from a primate study of Calando's first therapeutic candidate, CALA-001, which contains the siRNA delivery system, Calando's proprietary siRNA sequence targeting an enzyme necessary for cell replication and a targeting molecule. The data showed that the formulation was well tolerated at doses significantly higher than those shown to be effective in previous studies using a similar formulation. Additionally, no significant immune response was detected except at the highest dose. Overall, this study shows that multiple, systemic doses of CALAA-01 can safely be administered to non-human primates, and is the first example of multiple systemic dosing of siRNA in monkeys.

Calando currently is conducting further preclinical testing for its CALA-001 drug candidates and has completed the scale-up of the manufacture of its delivery polymer and its proprietary siRNA.

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

## **The Oncology Market**

Cancer is characterized by rapid, uncontrolled cell division resulting in the growth of an abnormal mass of cells generally referred to as a malignant tumor. Cancerous tumors can arise in almost any tissue or organ, and cancer cells, if not eradicated, can spread, or metastasize, throughout the body. As these tumors grow, they cause damage to the surrounding tissue and organs and commonly result in death if left untreated. Cancer is believed to occur as a result of a number of hereditary and environmental factors. According to the American Cancer Society, cancer is the second leading cause of death in the United States and accounts for approximately one in every four deaths.

## **CALAA-01**

Calando's lead product candidate, CALAA-01, is a formulation containing Calando's proprietary delivery technology with a siRNA duplex targeting the M2 subunit of ribonucleotide reductase, a well-established cancer target. Ribonucleotide reductase catalyzes the conversion of ribonucleosides to deoxyribonucleosides and is necessary for DNA synthesis and cell replication. The duplex, developed at Calando, demonstrates potent anti-proliferative activity across multiple types of cancer cells.

Calando is preparing to file an Investigational New Drug (IND) application with the US Food and Drug Administration. Upon clearance of regulatory requirements and institutional review by the clinical trial site, Calando hopes to begin its first clinical trial in early calendar 2008. Calando's research and development efforts on CALAA-01 are preliminary, and there is no assurance that this compound will be successful or that it will progress to clinical trials.

## **Research and Preclinical Development**

Calando continues to invest in the research and development of new product candidates, its proprietary siRNA delivery technology and new siRNA delivery technologies. Research and development efforts in these areas are preliminary, and there is no assurance that any of these compounds will be successful or will progress



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to clinical trials. Advancing these development candidates into human clinical trials is dependent on several factors, including technological feasibility and commercial opportunity as well as the availability of financial resources. It is difficult to evaluate the potential markets for these product candidates as the areas of potential application are diverse and specific applications are yet to be determined.

In addition to internal research and development efforts, acquisitions of other products, development candidates or technologies to expand Calando's pipeline and capabilities may be considered. When developing new products, a variety of factors are considered, including:

Potential pricing and gross margins

Existing and potential market size

High barriers to entry

Patent expiration dates

Manufacturing capabilities and access to raw materials

Potential development and competitive challenges

How a potential product will fit within our existing array of products under development, and what synergies may exist

## **Collaboration and Licensing Arrangements**

Calando is internally focused on using our technology to develop and commercialize siRNA therapeutics for systemic delivery applications, initially in the oncology area.

Insert Therapeutics, Inc., an affiliate of Calando, has licensed its linear cyclodextrin polymer delivery technology to Calando for the development of RNAi therapeutics. Under the terms of the license, Insert received an equity stake in Calando. Insert is also entitled to royalties and sublicensing fees on sales of any products covered by the licensing agreement.

Alnylam Pharmaceuticals, Inc., the holder of a substantial amount of foundational intellectual property for therapeutic uses of siRNA, has granted Calando an InterfeRx(TM) license to discover, develop, and commercialize an RNAi therapeutic utilizing a synthetic siRNA, together exclusively with Calando's proprietary delivery technology, that is directed towards the M2 subunit of ribonucleotide reductase as a cancer target. As part of the agreement, Calando also has an option to acquire an InterfeRx license for a second target gene. The licensing arrangement includes upfront, annual, and milestone payments, and royalties on sales of any products covered by the licensing agreement.

## **Manufacturing**

Calando currently uses, and expects to continue to be dependent upon, contract manufacturers to manufacture each of its product candidates. Calando has established a quality control and quality assurance program, including a set of standard operating procedures and specifications, designed to ensure that its products are manufactured in accordance with current Good Manufacturing Procedures, or cGMPs, and other applicable domestic and foreign regulations. Additional manufacturing resources would require additional investment, and Calando may seek to enter into additional collaborative arrangements with other parties that have established manufacturing capabilities. It is likely that Calando will continue to rely on third-party contract manufacturers in the development and commercialization of its products. Currently, Calando has agreements with third-party vendors to furnish CALAA-01 drug supply for clinical studies. Calando will be dependent upon these third-parties to supply products in a timely manner manufactured in compliance with cGMPs or similar standards imposed by foreign regulatory authorities where Calando's products are tested and/or marketed.



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### **Competition**

Calando is engaged in the rapidly changing business of developing treatments for human disease through the regulation of gene expression. Competition among entities attempting to develop products to treat diseases by regulating gene expression is intense and is expected to increase. In addition to competitors in the regulation of gene expression field, there are other competitors using other technologies to target the same diseases that we are targeting.

Calando faces direct competition from companies engaged in the research, development and commercialization of RNA interference-based technology, as well as competition from companies attempting other methods of gene expression control. Calando competes with large pharmaceutical companies and established biotechnology firms, many of whom are developing new products to treat the same diseases that Calando targets. In some cases, those companies have already commenced clinical trials for their products. Many of these companies have significantly greater financial resources and expertise in research and development, manufacturing, preclinical studies and clinical trials, obtaining regulatory approvals and marketing than Calando does. Calando's collaborators, licensors and potential licensees may be conducting research and development programs using RNA interference technology and non-RNA interference technologies directed at the same diseases that Calando is targeting. Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical and biotechnology companies. In addition, competitors may complete clinical trials, obtain required regulatory approvals and commence commercial sales of their products before Calando, thus achieving a significant competitive advantage.

A number of companies are pursuing research and development programs related to the emerging area of RNA interference. A number of these companies have filed patent applications in the area of RNA interference. It is difficult to predict whether any of these companies will be successful in obtaining patent protection, whether the patent protection sought will address important aspects of the technology and, to what extent these companies will be successful in their RNA interference efforts.

Academic institutions, governmental agencies and other public and private research organizations also conduct research, seek patent protection and establish collaborative arrangements for products and clinical development and marketing. These companies and institutions compete with Calando in recruiting and retaining highly qualified scientific and management personnel.

### **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 Cycloset<sup>®</sup> 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. Mark Davis.

### **Key Personnel**

Dr. Mark Davis is the founder of Calando. Dr. Davis is also the founder of Insert

Until October 31, 2007, Mr. John Petrovich was Calando's Chief Executive Officer and President. On November 1, Mr. Larry Stambaugh became Calando's Chief Executive Officer and President. Their biographies are set forth under the Key Personnel section of Insert Therapeutics in this filing.

Jeremy Heidel, Ph.D. is Chief Scientific Officer and Vice President, Research & Development, 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,

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(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.

Calando's board of directors is comprised of Mark Davis, who also serves as a director of Insert, R. Bruce Stewart, who also serves as Executive Chairman of Arrowhead, and Edward W. Frykman, who also serves as a director of Arrowhead. On November 1, 2007, Mr. Stambaugh was elected to the board of Calando, concurrent with his appointment as CEO of Calando.

As of September 30, 2007, Calando had 8 employees, all of whom were full time, including Mr. Petrovich, who also served as CEO and President of Insert.

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

#### **General**

Unidym, Inc. is engaged in the manufacture and application of carbon nanotubes (CNTs), a novel material with extraordinary electrical, thermal, and mechanical properties. Unidym provides CNT-enabled products, bulk CNT materials, and intellectual property to a wide range of customers and business partners. Unidym's initial CNT-enabled products are transparent electrodes consisting of a thin, transparent film of carbon nanotubes that could replace the expensive, failure-prone materials currently employed by manufacturers of such devices as touch screens, flat panel displays, solar cells and solid state lighting. In addition, Unidym has historically provided bulk CNT materials to hundreds of customers primarily for research or early commercial prototyping purposes, and recently has selectively entered into intellectual property licensing arrangements to license its CNT technology to customers or partners in non-core markets. Longer term, Unidym expects to extend its CNT-enabled product offerings to provide electrodes for fuel cells; and thin film transistors for thin film solar and printable electronics applications.

Unidym was formed when NanoPolaris, a Subsidiary of Arrowhead Research Corporation, acquired the assets of an early stage company called Unidym, Inc. NanoPolaris was founded to consolidate foundational intellectual property related to carbon nanomaterials. At the time of the acquisition, NanoPolaris had successfully negotiated exclusive commercial rights to nanotechnologies, mostly in the area of carbon nanotubes, developed at the California Institute of Technology, Duke University, Pennsylvania State University, State University of New York at Buffalo, University of Toronto, Rensselaer Polytechnic Institute and Tsinghua University. NanoPolaris purchased the assets of the former Unidym to gain access to the company's substantial expertise and intellectual property in carbon nanotube films, which may have broad application to the electronics industry. After its purchase of Unidym's assets in June 2006, NanoPolaris changed its name to Unidym.

In April 2007, Unidym merged with Carbon Nanotechnologies, Inc. (CNI) of Houston, Texas, a company founded in 2000 by the late Dr. Richard Smalley of Rice University. Dr. Smalley and his collaborators won the 1996 Nobel Prize in Chemistry for their discovery of carbon fullerenes, an allotrope (or molecular form) of carbon closely related to the carbon nanotube. Dr. Smalley's pioneering work led to the development of a suite of more than 100 patents (including 54 issued US patents) owned or controlled by CNI, as well as the development of significant development and manufacturing infrastructure for the production of CNT materials. Since its inception, CNI has provided bulk CNT materials to hundreds of customers, primarily for research or early commercial prototyping purposes, and has won research grants from government agencies such as the National Institute of Science (NIST) and the State of Missouri.

With the CNI merger, Unidym controls an expansive intellectual property portfolio related to CNT technology, with foundational patents covering CNT compositions of matter, synthesis, processing, and applications. Although Unidym is currently focused on the electronics industry, its patent portfolio broadly covers many other promising CNT applications, ranging from structural composites, to sensors and to therapeutics.

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### **Competition**

Unidym faces competition from a number of start-ups and established companies in the industries it enters. In the electronics industry, there are a number of start-up or private companies that are focused on the application or production of nanotubes including Atomate, C-Nano, Eikos, Nantero and Southwest Nanotechnologies. More established companies with announced CNT programs include Brewer Sciences, DuPont, Honeywell, Samsung, Sumitomo and Toray. There are also potential competitors who are pursuing alternative nanotech based approaches to the markets served by Unidym, including the start-up Cambrios and large Japanese companies such as Fujitsu.

### **Manufacturing**

As a result of the recent merger with CNI, Unidym possesses significant in-house manufacturing capability for the production and purification of nanotubes for both electronic and bulk material applications. Unidym also has limited in-house capability to produce sample and prototype quantities of CNT-based transparent conductive films.

#### *Carbon Nanotube Production and Purification*

Unidym can produce different grades of carbon nanotubes in high volume and at low cost. The Houston facility (formerly CNI) has developed two different processes for commercial production: High Pressure Carbon Monoxide ( HiPco or MGP1 ) and Modified Gas Phase 2 ( MGP2 ); as well as a new process, Modified Gas Phase 3 ( MGP3 ) which is in the late stages of development and qualification. By varying production conditions and post-processing techniques, Unidym is able to produce a wide variety of nanotube grades that are tailored to different markets.

The HiPco route is an all-gas phase process that mixes catalyst precursor with hot carbon monoxide gas under conditions of high pressure and high temperature. It produces one-wall carbon nanotubes that are best utilized for certain high-end products, such as fuel cells. The MGP2 process combines the gas phase process with aspects of a supported catalyst route, which is sometimes referred to as a CVD process. The MGP2 process is used to produce materials grades required for composite materials and electrostatic discharge protection applications. The MGP3 process is a modified version of the MGP2 process which is used for producing electronics grade materials. The company is in the latter stages of development and qualification for this new material grade.

#### *Manufacturing Carbon Nanotube Based Transparent Conductive Films*

Unidym has capabilities for manufacturing tunable electronic components based on random networks of carbon nanotubes. First, CNT powders are dispersed in aqueous solutions to produce inks. The nanotube inks are then deposited on different substrates using high volume, roll to roll manufacturing equipment. After being deposited, the films are treated and encapsulated to protect them from environmental conditions such as moisture and abrasion. The nanotube networks can be tuned to provide desirable electrical, mechanical, and optical properties for different electronic applications. These tunable components include CNT-based transparent conductive films for use in transparent electrode applications in such products as touch screens, flat panel displays, solar cells and solid state lighting.

Unidym has in-house deposition or coating equipment which is used for the deposition of CNTs onto plastic or glass substrates in sample quantities. For early production of transparent conductive films, Unidym expects to engage with subcontractors ( toll coaters ) who have existing high volume, high quality roll to roll capacity which has historically been used in the production of films for the motion picture or still photography industries. The Company expects that given the abundance of these subcontractors and the availability of subcontract capacity, there will be no need to bring production capacity in house for the near or intermediate term. However, the Company expects to continually evaluate the quality and costs of its subcontract toll coaters, and may decide to bring such production in house if it is advantageous to the company to do so.

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### **Marketing and Sales**

Revenue is expected to be generated through direct product sales and license deals into relatively consolidated industries. As a result, Unidym intends to have a relatively small in-house business development team and will leverage the sales force and relationships of its distribution, development and production partners. Unidym has recently hired a Vice President of Business Development and Marketing who has more than 20 years of executive level experience in the electronics industry who will lead the Company's business development, sales and marketing efforts. The Company currently has a distribution relationship with the large Japanese trading firm, Sumitomo, for the distribution of its CNT materials in Asia. Unidym expects to also use similar distributors to assist in the distribution of its CNT-based transparent conductive films.

### **Intellectual Property**

Unidym controls an expansive intellectual property portfolio covering CNT technology, with foundational patents covering CNT compositions of matter, synthesis, processing, and applications. Although Unidym is currently focused on the electronics industry, its patent portfolio broadly covers many other promising CNT applications, ranging from structural composites, to sensors and to therapeutics.

### **Key Personnel**

Arthur Swift is President and CEO of Unidym and has over 20 years of senior management experience in the semiconductor industry. Previously, Mr. Swift was President and CEO of Transmeta Corporation, an innovative semiconductor company in the Silicon Valley.

Ralph J. Harms is the Chief Financial Officer who brings to Unidym a wealth of financial management experience, in both private and public technology companies. Ralph has experience in building the infrastructure necessary to successfully deal with the intricacies of technology manufacturing and licensing businesses.

Robert Bismuth is Vice President of Business Development & Marketing and has a track record of innovative business success in both building strategic relationships and in bringing to market new applications for a wide range of technologies.

Unidym's board of directors is comprised of R. Bruce Stewart, Chairman (who also serves as Executive Chairman of Arrowhead), Edward W. Frykman and Charles McKenney (who also serve as directors of Arrowhead), Arthur Swift, Dr. George Gruner, Dr. Bob Gower and Ray McLaughlin.

At September 30, 2007, Unidym had 32 full-time employees.

### ***Tego BioSciences, Inc.***

#### **General**

Tego BioSciences Corporation (Tego) was formed to acquire the assets of C Sixty, Inc. in April 2007. Tego is focused on developing and commercializing products for the health care industry based on modified buckminsterfullerenes (also known as fullerenes or buckyballs). Tego's product candidates include therapeutic skin creams, cancer therapies, and drugs targeting central nervous system disorders. Tego is also exploring the use of modified fullerenes as contrast agents in magnetic resonance imaging (MRI).

Fullerenes are a highly structured, nanoscale form of pure carbon, similar to carbon nanotubes. Roughly one nanometer in diameter, a fullerene molecule is comprised of 60 carbon atoms and has the symmetry of a soccer ball. The spherical shape, hollow interior, and 60 carbon atoms of the molecule allow drug designers the opportunity to attach therapeutic and targeting chemical groups in many configurations.

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### **Research and Development**

Initially, Tego does not intend to hire staff to develop these products. Rather, for the first eighteen months, the company intends to use third parties to do most of the development work with a small staff located in Houston, Texas, to oversee the progress and to direct collaborations and licensing of the intellectual property.

### **Collaborations and Licensing**

The preclinical studies for the chemotherapy protection product will be performed in the National Cancer Institute's (NCI) Nanotechnology Characterization Lab (NCL) to measure the ability of a Tego fullerene formulation to protect against harmful side effects of two anti-cancer drugs; cisplatin and adriamycin. The first stage of the studies will use NCL's resources, with follow on funding from Tego, as appropriate.

The National Cancer Institute, working in concert with the National Institute of Standards and Technology (NIST) and the U.S. Food and Drug Administration (FDA), established the Nanotechnology Characterization Laboratory ([ncl.cancer.gov](http://ncl.cancer.gov)) to perform preclinical efficacy and toxicity testing of nanoparticles. The NCL serves as a national resource and knowledge base for all cancer researchers to facilitate the regulatory review of nanotechnologies intended for cancer therapies and diagnostics. By providing the critical infrastructure and characterization services to nanomaterial providers, the NCL can accelerate the transition of basic nanoscale particles and devices into clinical applications, thereby reducing suffering and death from cancer.

Licenses and collaborations for the other product targets will be pursued over the course of the next fiscal year.

### **Competition**

Tego is competing with other companies developing fullerene products as well as alternatives to fullerene products. There are several companies that manufacture and sell fullerenes and fullerene formulations, including Frontier Carbon Corporation (Mitsubishi subsidiary) and Nano-C. There are also companies developing fullerene-based therapeutics, including Luna nanoWorks and Vitamin C60 Bioresearch (Mitsubishi subsidiary).

There are a variety of other technologies that Tego must compete with in commercializing its fullerene-based products. For example, other compounds can be used as antioxidants in therapeutic skin creams. Additionally, there are many different technologies being developed to improve cancer therapy and treat central nervous system disorders. There are also a variety of novel MRI contrast agents under development.

### **Manufacturing**

Tego does not initially intend to manufacture and market its products directly. Rather, it is pursuing a strategy of partnering, licensing, and outsourced manufacturing.

### **Intellectual Property**

Tego has a patent protected fullerene platform that forms the basis for several products. The company's intellectual property assets include exclusive licenses to issued patents and patent applications from Siemens and Washington University.

### **Key Personnel**

On October 25, 2007, Dr. Russ Lebovitz was appointed CEO of Tego to chart the strategic direction and guide the operations of the new nano-biotechnology company. Dr. Lebovitz served previously as CEO of C Sixty, Inc., the company that pioneered the technology now owned by Tego.

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Tego's Board of Directors is composed of R. Bruce Stewart, Executive Chairman of Arrowhead, Ed Frykman, Russ Lebovitz and John Miller. Mr. Stewart and Mr. Frykman are also members of Arrowhead's Board.

At September 30, 2007, Tego had no full-time employees.

### ***Aonex Technologies, Inc.***

#### **General**

Aonex Technologies is developing engineered wafers to enable manufacturers of blue and white LEDs to reduce their production costs and create higher efficiency devices. The market for blue LEDs is currently \$4 billion and expected to grow to \$9 billion by 2009.

Blue and white LEDs are manufactured by depositing (or growing) gallium nitride (and its alloys) onto 2" sapphire substrates at high temperatures. While relatively inexpensive, sapphire poses two challenges to device manufacturers. First, it is an electrical and thermal insulator which means that it must be removed following device growth in order to create high efficiency (i.e., vertical) device structures. Second, it expands at a different rate than gallium nitride as the temperature is changed (a material property termed coefficient of thermal expansion or CTE) resulting in high levels of stress and wafer bow during and after the growth process. This latter limitation is the primary obstacle that prevents the industry from moving to larger wafer sizes to reduce costs.

Aonex's engineered wafers are comprised of thin films of materials suitable for LED fabrication that have been bonded onto specially engineered support wafers using a proprietary process. By optimizing the support wafer's properties, Aonex is able to simplify the manufacture of high efficiency LED structures, improve yields, and offer a viable path to larger wafer sizes (and corresponding lower costs). Aonex has performed testing of prototypes of its products and is shipping samples to potential partners.

#### **Collaboration and Licensing Arrangements**

After analyzing the existing competition and scale required for success in its core markets, Aonex has opted to seek an established company with which to partner in its future commercialization efforts. In such a partnership, Aonex would provide the technology developed to date while the larger partner would provide resources and the product stream. This change of strategy will likely limit the return that Arrowhead is able to achieve on its investment in Aonex.

#### **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 and patent applications filed by Caltech. In addition, Aonex believes it possesses adequate intellectual property rights in a number of key areas of engineered substrates for compound semiconductor device production.

#### **Key Personnel**

Harry Atwater is a founder of Aonex and is Chairman of Aonex's Scientific Advisory Board. Dr. Atwater is the Howard Hughes Professor of Applied Physics and Materials Science at Caltech and possesses over 25 years of experience in Aonex's core technologies. Professor Atwater holds B.S., M.S. and Ph.D. degrees from MIT.

Sean Olson is the President of Aonex. Mr. Olson has both technical and business experience in the semiconductor industry and is a veteran of both early and late stage ventures.



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Aonex's board of directors is comprised of Sean Olson, Harry Atwater, R. Bruce Stewart who also serves as Executive Chairman of Arrowhead, and Edward W. Frykman, who also serves as a director of Arrowhead.

As of September 30, 2007, Aonex had one full time employee.

### ***Discontinued Operations***

As part of Arrowhead's model, the Company will open or close subsidiaries based upon the success of the subsidiary. The Company closed one subsidiary, Nanotechnica, during fiscal 2005. The subsidiary is shown in the line "Loss on Discontinued Operations" on the consolidated statements of operations.

### **Nanotechnica, Inc.**

In the third quarter of fiscal 2005, the Company determined that the progress being made by Nanotechnica in commercializing microfluidics technology was not progressing satisfactorily and the market potential was uncertain. As a result, on June 3, 2005, a majority of the stockholders of Nanotechnica voted to dissolve the company. Because of Arrowhead's liquidation preference as the holder of Nanotechnica's Series A Preferred Stock, \$2.8 million in cash was remitted to Arrowhead along with \$213,000 of the other remaining assets. Arrowhead has discontinued development efforts related to microfluidics and returned the applicable patents to Caltech. The losses incurred by Nanotechnica are segregated in the Consolidated Statement of Operations as Loss from Operation of Discontinued Nanotechnica, Inc. Nanotechnica generated no revenues.

### ***Sponsored Research***

As of September 30, 2007, Arrowhead had two sponsored research agreements with the California Institute of Technology and Unidym had one with Duke University and one with University of Florida.

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.

### ***California Institute of Technology***

In September and October 2007, the funding for two sponsored research projects at the California Institute of Technology were cancelled when we determined that the research would not lead to near term commercialization. Under the terms of the agreement, upon notice of termination, Caltech will not make any further commitments and take reasonable action to terminate existing commitments. The Company is responsible for any outstanding commitments that cannot be cancelled. The Company does not expect to incur any material costs in connection with the termination of the agreements.

### ***Duke University Nanoscale Interconnects For Integrated Circuit***

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 leading to gaps in the connection. As a result, progressively smaller integrated circuits made with copper interconnects have reduced reliability, lose one or more connections, or can even cause failure of the entire circuit.

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The Liu group is using carbon nanotubes to replace copper wires. Carbon nanotubes can carry larger current densities, have lower resistance, and may be more stable than copper at certain smaller size scales. Metallic nanotubes have a current carrying capacity of one billion amps per square centimeter while copper wires burn out at one million amps per square centimeter. At this time, one model demonstrates that, when bundles of tens-of-micrometer long densely packed nanotubes with small contact resistances are used, nanotubes can be 80% faster than copper wires at the 22 nm node.

The rights and obligations of the sponsored research agreement between the Company and Duke were transferred to Unidym prior to Unidym's acquisition of Carbon Nanotechnologies, Inc. The terms of the agreement provide for annual funding of approximately \$340,000 to fund Dr. Liu's work from December 2005 through November 2007.

***University of Florida Flexible Electronic Devices***

Dr. Andrew Rinzler and his group at the University of Florida are developing flexible electronic devices. Thin film transistors (TFTs) could be used to make products such as low cost RFID (radio frequency ID) tags, flexible displays, and electronic paper. Further, unlike state of the art electronics manufacturing facilities which cost billions of dollars, flexible electronics are likely to be produced with low cost ink-jet printing technologies. According to estimates from NanoMarkets, the total market for products based on thin film transistors could reach over \$20 billion by 2012.

Companies seeking to commercialize thin film transistors have primarily focused on organic transistors. Organic transistors have not, however, demonstrated the mobility and lifetimes necessary for device integration. Dr. Rinzler's team uses carbon nanotubes to make thin film transistors. In addition to having high carrier mobility, nanotubes can be deposited at low temperatures on most substrates directly from solutions. Transistors comprising nanotubes are robust, air stable, and can be bent substantially.

The rights and obligations of the sponsored research agreement between the University of Florida and the Company were transferred to Unidym prior to Unidym's acquisition of Carbon Nanotechnologies, Inc. The terms of the agreement provide for \$647,000 in funding over a two year period from July 2006 through June 2008 to develop optimized TFT devices and prototypes of TFT arrays.

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### **ITEM 1A. 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 similar stages of development.*

*The following is a summary of certain risks we face. They are not the only risks we face. Additional risks of which we are not presently aware or that we currently believe are immaterial may also harm our business and results of operations. The trading price of our common stock could decline due to the occurrence of any of these risks, and investors could lose all or part of their investment. In assessing these risks, investors should also refer to the other information contained or incorporated by reference in our other filings with the Securities and Exchange Commission.*

### **CERTAIN RISK FACTORS RELATING TO THE COMPANY'S FOCUS ON NANOTECHNOLOGY**

*There are substantial inherent risks 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 a new and unproven field. The Company's research scientists are working on developing technology in various stages. However, such technology's commercial feasibility and acceptance is unknown. Scientific research and development requires significant amounts of capital and takes an extremely long time to reach commercial viability, if at all. To date, the Company's research and development projects have not produced commercially viable applications, and may never do so. During the research and development process, the Company may experience technological barriers 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, it is possible that none of our potential applications will 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 generate revenues and achieve profitability.*

Even if our research and development yields technologically feasible applications, the Company may not successfully develop commercial products, and even if it does, it may not be on a timely basis. If the Company's research efforts are successful on the technology side, it could take at least several years before this technology will be commercially viable. During this period, superior competitive technologies may be introduced or customer needs may change, which will diminish or extinguish the commercial uses for our applications. Because nanotechnology is an emerging field, the degree to which potential consumers will adopt nanotechnology-enabled products is uncertain. The Company cannot predict when significant commercial market acceptance for nanotechnology-enabled products will develop, if at all, and we cannot reliably estimate the projected size of any such potential market. If markets fail to accept nanotechnology-enabled products, we may not be able to generate revenues 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 acceptance of our technology among original equipment manufacturers and customers, 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 effectively secure 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 can be largely attributed to the fact that the plan of operations adopted by the Company is relatively novel. If the Company continues to be successful in attracting funding for research

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and commercialization projects, it is possible that additional competitors could emerge and compete for such funding. Should that occur, the Company could encounter difficulty in raising funds to finance its future operations and further research and commercialization projects.

Additionally, a substantial number of companies fund early-stage, scientific research at universities, and many venture capital firms and other institutional investors invest in companies seeking to commercialize various types of emerging technologies. It is possible that these companies, which may be more established and have greater resources than we do, and venture funds and institutional investors, as well as possible additional competitors, have financed or will begin to finance nanotechnology research. Should that occur, the Company may not be able to secure the opportunity to finance first-tier research and commercialization projects. Furthermore, should any commercial undertaking by the Company prove to be successful, there can be no assurance competitors with greater financial resources will not offer competitive products and/or technologies.

*We will need to establish additional relationships with strategic and development partners to fully develop and market our products.*

The Company does not possess all of the resources necessary to develop and commercialize products that may result from its technologies on a mass scale. Unless the Company expands its product development capacity and enhances its internal marketing, the Company will need to make appropriate arrangements with strategic partners to develop and commercialize current and future products. If the Company does not find appropriate partners, or if its existing arrangements or future agreements are not successful, the Company's ability to develop and commercialize products could be adversely affected. Even if the Company is able to find collaborative partners, the overall success of the development and commercialization of product candidates in those programs will depend largely on the efforts of other parties and is beyond our control. In addition, in the event the Company pursues its commercialization strategy through collaboration, there are a variety of attendant technical, business and legal risks, including:

a development partner would likely gain access to Company proprietary information, potentially enabling the partner to develop products without the Company or design around the Company's intellectual property;

the Company may not be able to control the amount and timing of resources that our collaborators may be willing or able to devote to the development or commercialization of our product candidates or to their marketing and distribution; and

disputes may arise between us and our collaborators that result in the delay or termination of the research, development or commercialization of our product candidates or that result in costly litigation or arbitration that diverts our management's resources. The occurrence of any of the above risks could impair our ability to generate revenues and harm our business and financial condition.

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

There is public concern regarding the environmental and ethical implications of nanotechnology that could impede market acceptance of products developed through these means. Nanotechnology-enabled products could be composed of materials such as carbon, silicon, silicon carbide, germanium, gallium arsenide, gallium nitride, cadmium selenide or indium phosphide, which may prove to be unsafe or harmful to the environment because of the size, shape or composition of the nanostructures. For this reason, these nanostructures may prove to present risks to human health or the environment that are different from and greater than the better understood risks that may be presented by the constituent materials in non-nanoscale forms. Government authorities in the United States or individual states, and foreign government authorities could, for social or other purposes, prohibit or regulate the use of some or all nanotechnologies. The regulation and limitation of the kinds of materials used in

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or used to develop nanotechnology-enabled products, or the regulation of the products themselves, could halt or delay the commercialization of nanotechnology-enabled products or substantially increase the cost, which will impair our ability to achieve revenue from the license of nanotechnology applications.

*We have entered into technology license agreements with third parties that require us to satisfy obligations to keep them effective, and if these agreements are terminated, our technology and our business would be seriously and adversely affected.*

Through our Subsidiaries, we have entered into exclusive, long-term license agreements with Rice University, California Institute of Technology, Alnylam Pharmaceuticals, Inc., and other entities to incorporate their proprietary technologies into our proposed products. These license agreements require us to pay royalties and satisfy other conditions, including conditions related to the commercialization of the licensed technology. We cannot give any assurance that sales of products incorporating these technologies will be sufficient to recover the amounts that we are obligated to pay to the licensors. Failure by us to satisfy our obligations under these agreements may result in the modification of the terms of the licenses, such as by rendering them non-exclusive, or may give our licensors the right to terminate their respective agreement with us, which would limit our ability to implement our current business plan and harm our business and financial condition.

*We rely on outside sources for various components and processes for our products.*

We rely on third parties for various components and processes for our products, including the manufacture of Calando's and Insert's product candidates. While we try to have at least two sources for each component and process, we may not be able to achieve multiple sourcing because there may be no acceptable second source, other companies may choose not to work with us, or the component or process sought may be so new that a second source does not exist, or does not exist on acceptable terms. Therefore, it is possible that the business plans of the Company will have to be slowed down or stopped completely at times due to our inability to obtain required raw materials, components and outsourced processes at an acceptable cost, if at all, or to get a timely response from vendors.

*We may be unable to scale up our manufacturing processes in a cost effective way.*

In some cases, nanotechnology will require new technological and manufacturing processes that, at this time, are very expensive and subject to error. There is no assurance that technology and manufacturing processes will expand and improve quickly enough to enable the Company's targeted products to be made within rigorous tolerances cost effectively. If manufacturing and mass production are not available at a favorable cost, the Company's technology may not be adopted by the applicable industry. Under such scenario, the Company may not achieve its business plan for one or more processes or products, which could adversely impact the value of our Common Stock.

*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 necessary 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 the FDA approves an appropriate marketing application. Furthermore, even after initial FDA approval has been obtained, further trials may be required to obtain 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 may develop 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 burdensome 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.***

Two of our Subsidiaries, Insert and Calando, are 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 potential product for the intended use; and

manufacturing 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 potential products. 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 businesses of Insert and Calando will be materially and adversely affected, and the value of the Company's interest in these Subsidiaries will diminish.

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

The Company's operations, including its research and development and its commercialization efforts, such as clinical trials, manufacturing and distribution, are 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, any of which could harm our business and financial condition.

### ***The technology licensed by the Company's Subsidiaries from various third parties may be subject to government rights and retained rights of the originating research institutions.***

We license technology from Caltech, Rice University, and other universities and companies. Our licensors may have obligations to government agencies or universities. Under their agreements, a government agency or university may obtain certain rights over the technology that we have developed and licensed, including the right to require that a compulsory license be granted to one or more third parties selected by the government agency.

In addition, our collaborators often retain certain rights under their agreements with us, including the right to use the underlying technology for noncommercial academic and research use, to publish general scientific findings from research related to the technology, and to make customary scientific and scholarly disclosures of information relating to the technology. It is difficult to monitor whether our collaborators limit their use of the technology to these uses, and we could incur substantial expenses to enforce our rights to our licensed technology in the event of misuse.



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***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.

***We may be subject to patent infringement claims, which could result in substantial costs and liability and prevent us from commercializing our potential products.***

Third parties may claim that our potential products or related technologies infringe their patents. Any patent infringement claims brought against us may cause us to incur significant expenses, divert the attention of our management and key personnel from other business concerns and, if successfully asserted against us, require us to pay substantial damages. In addition, as a result of a patent infringement suit, we may be forced to stop or delay developing, manufacturing or selling potential products that are claimed to infringe a patent covering a third party's intellectual property unless that party grants us rights to use its intellectual property. We may be unable to obtain these rights on terms acceptable to us, if at all. Even if we are able to obtain rights to a third party's patented intellectual property, these rights may be non-exclusive and, therefore, our competitors may obtain access to the same intellectual property. Ultimately, we may be unable to commercialize our potential products or may have to cease some of our business operations as a result of patent infringement claims, which could severely harm our business.

In addition, if our potential products infringe the intellectual property rights of third parties, these third parties may assert infringement claims against our customers, and we may be required to indemnify our customers for any damages they suffer as a result of these claims. The claims may require us to initiate or defend protracted and costly litigation on behalf of customers, regardless of the merits of these claims. If any of these claims succeed, we may be forced to pay damages on behalf of our customers or may be required to obtain licenses for the products they use. If we cannot obtain all necessary licenses on commercially reasonable terms, we may be unable to continue selling such products.

***We may not be successful integrating operations of Unidym's California and Texas locations.***

Our Subsidiary, Unidym, through its wholly-owned subsidiary, Unidym Acquisition LLC, merged with Texas-based Carbon Nanotechnologies, Inc. ( CNI ) through a reverse triangular merger on April 20, 2007. Management may fail to successfully integrate the two companies or realize the expected benefits from the merger. Additionally, it is possible that the merger will have a negative impact on Unidym's ability to sell carbon nanotubes, commercialize electronic products incorporating carbon nanotubes, and generate revenue. Unidym may be unable to obtain access to carbon nanotubes from other suppliers that may be better suited for Unidym's electronic products. Similarly, Unidym may lose existing customers or fail to secure prospective customers if those customers believe that Unidym's plan to manufacture electronic products incorporating carbon nanotubes represents a competitive threat. It is also possible that the costs required to integrate the two companies will be greater than expected. It is anticipated that, in the immediate future, both the Houston, Texas, and Menlo Park, California, facilities will continue to operate. Management will be required to supervise and coordinate activities at two facilities in different states. There may be unanticipated redundancies in the capital equipment and research efforts at each facility. Researchers and product managers at different facilities may not effectively communicate, and the cultures and work environments may differ between facilities.



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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.*

The implementation of the Company's business strategy is still in the development stage. We have acquired majority interests in five Subsidiary companies and, through Unidym, one university research project at Duke University and one university research project at the University of Florida. 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, several of which may be beyond the control of the Company, or which cannot be predicted at this time, and which could have a material adverse effect upon the financial condition, business prospects and operations of the Company and the value of an investment in the Company.

*The Company has not generated significant revenues 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.

*Failure to effectively manage our growth could place strains on our managerial, operational and financial resources and could adversely affect our business and operating results.*

Our growth has placed, and is expected to continue to place, a strain on our managerial, operational and financial resources. Further, as our Subsidiaries' businesses grow, we will be required to manage multiple relationships. Any further growth by us or our Subsidiaries, or an increase in the number of our strategic relationships will increase this strain on our managerial, operational and financial resources. This strain may inhibit our ability to achieve the rapid execution necessary to implement our business plan, 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.

*Our future success depends on our ability to expand our organization to match the growth of our Subsidiaries.*

As our Subsidiaries grow, the administrative demands upon the Company will grow, and our success will depend on our ability to meet these demands. These demands include increased accounting, management, legal services, staff support and general office services. We may need to hire additional qualified personnel to meet these demands, the cost and quality of which is dependent in part on market factors beyond our control. Further, we will need to effectively manage the training and growth of our staff to maintain an efficient and effective workforce, and our failure to do so could adversely affect our business and operating results.

*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 Subsidiaries and 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.

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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.

***Neither the Company nor any of its Subsidiaries have confirmed the value of their assets or business by an independent valuation.***

The Company is a development stage company and our assets consist mainly of intellectual property, rights and contracts. The Company's Common Stock is traded on the NASDAQ Capital Market and the trading price of our Common Stock has served as a baseline valuation for Arrowhead Research. However, neither the Company, on a consolidated basis, nor any Subsidiary has sought an independent valuation for their businesses or assets. Traditional methods of valuation include a discounted cash flow analysis and a comparable company analysis. The Company has not generated a positive cash flow to date and does not expect to generate significant cash flow in the near future. Additionally, the Company does not believe that there exist comparable public companies to provide a meaningful valuation comparison. Arrowhead Research's Subsidiary investments were the result of negotiation with Subsidiary management and equity holders, but the investment valuations were not independently verified. Accordingly, Arrowhead Research may have invested in its various holdings at higher or lower valuations than an independent source would have dictated. Therefore, there may be no correlation between the investment valuations used by Arrowhead Research over the years for its investments and the actual market values. If Arrowhead should eventually sell all or a part of any of its consolidated business or that of a Subsidiary, the ultimate sale price may be for a value substantially lower or higher than previously determined by Arrowhead, which could materially and adversely impair the value of our Common Stock.

***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 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 75,000,000 shares of Common Stock, on such terms and at such prices as the Board of Directors of the Company may determine. As of December 10, 2007, 38,610,420 shares of common stock were issued and outstanding. As of December 10, 2007, 1,615,875 shares and 4,843,667 shares were reserved for issuance upon exercise of options granted under Arrowhead's 2000 Stock Option Plan and 2004 Equity Incentive Plan, respectively. As of December 10, 2007, options to purchase 1,615,875 shares were outstanding under the 2000 Stock Option Plan and options to purchase 3,554,048 shares were outstanding under the 2004 Incentive Plan. As of December 10, 2007, the Company had warrants outstanding to purchase 2,109,862 shares of Common Stock that are callable by the Company under certain market conditions. The issuance of additional securities in financing transactions by the Company or

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through the exercise of options or warrants 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, Executive Chairman of Arrowhead, who conceived the Company's business and overall operating strategy and has been most instrumental in assisting the Company to raise capital. In addition, the Company relies on several key executives to manage each of our Subsidiaries. The Company does not maintain key man life insurance for Mr. Stewart or any other executive. The Company's ability to execute its strategy also will depend on its ability to 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.

## **CERTAIN RISK FACTORS RELATING TO OUR STOCK**

*Arrowhead's Common Stock price has fluctuated significantly during fiscal 2005, 2006 and 2007 and may continue to do so in the future.*

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

announcements of developments related to our business;

developments in our strategic relationships with scientists within the nanotechnology field;

our ability to enter into or extend investigation phase, development phase, commercialization phase and other agreements with new and/or existing partners;

announcements regarding the status of any or all of our collaborations or products;

market perception and/or investor sentiment regarding nanotechnology as the next technological wave;

announcements regarding developments in the nanotechnology field in general;

the issuance of competitive patents or disallowance or loss of our patent rights; and

quarterly variations in our operating results.

We will not have control over many of these factors but expect that they may influence our stock price. As a result, our stock price may be volatile and any extreme fluctuations in the market price of our Common Stock could result in the loss of 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.*

## Edgar Filing: ARROWHEAD RESEARCH CORP - Form 10-K

Although the Company's Common Stock is listed for trading on The NASDAQ Capital Market, currently, our securities are relatively 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.

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*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. Investors have many investment opportunities and may limit their investments to companies that receive coverage from analysts. If no industry or securities analysts commence coverage of our Company, the trading price of our stock could be negatively impacted. In the event we obtain industry or security analyst coverage, if one or more of the analysts downgrade our stock or comment negatively on our prospects, our stock price would likely decline. If one of more of these analysts cease to cover our industry or us 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. Furthermore, due to relatively low trading volume of our stock, should one or more large stockholders seek to sell a significant portion of its stock in a short period of time, the price of our stock may decline.

*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.

*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.

## **ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

**Table of Contents****ITEM 2. PROPERTIES**

Our corporate headquarters is located in Pasadena, California. The Company leases the following facilities:

	Lab/Office	Monthly	Lease	
	Space	Rent	Commencement	Lease Term
Arrowhead				
Pasadena(1)	7,388 sq ft	\$ 17,362	March 1, 2006	62 Months
New York(2)	130 sq ft	\$ 3,600	September 1, 2007	12 Months
Aonex	4,000 sq ft	\$ 7,611	July 1, 2004	48 Months
Calando	7,000 sq ft	\$ 12,944	June 1, 2006	18 Months
Insert	4,354 sq ft	\$ 12,173	June 1, 2006	36 Months
Unidym				
Menlo Park, CA	7,000 sq ft	\$ 10,500	February 1, 2007	36 Months
Houston, TX	8,017 sq ft	\$ 13,362	February 1, 2007	11 Months

- (1) Arrowhead leases corporate office space in Pasadena, which it occupied beginning March 1, 2006. The lease agreement provides Arrowhead with two months free rent which was recorded as a deferred liability and is being amortized over the life of the lease.
- (2) In September 2005, Arrowhead opened an office in New York City and has one employee working out of that office. In June 2007, the lease was renewed for 12 months effective September 1, 2007.

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

**ITEM 3. LEGAL PROCEEDINGS**

The Company is not currently party to any material legal proceedings.

**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 year ended September 30, 2007.

**Table of Contents****PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES***Price Range of Common Stock*

Our Common Stock is traded on the NASDAQ Stock Market under the symbol ARWR. The following table sets forth the high and low bid prices for a share of the Company's Common Stock during each period indicated. During the year ended September 30, 2007, the weekly trading volume ranged from 129,100 shares to 5,389,600 shares with an average weekly volume of 1,018,520 shares.

	Fiscal Year Ended September 30,			
	2007		2006	
	High	Low	High	Low
1st Quarter	5.30	4.13	5.25	2.99
2nd Quarter	4.63	3.60	5.62	4.04
3rd Quarter	7.60	4.48	7.65	4.10
4th Quarter	5.42	3.97	5.38	4.45

*Shares Outstanding*

At December 11, 2007, an aggregate of 38,610,420 shares of the Company's Common Stock were issued and outstanding, and were owned by 567 stockholders of record, based on information provided by the Company's transfer agent.

*Dividends*

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

*Sales of Unregistered Securities*

The Company did not conduct any offerings of equity securities during the fourth quarter of 2007 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 fiscal 2007 or fiscal 2006.

*Information Regarding Equity Compensation Plans*

The following table provides certain information as of September 30, 2007, with respect to all of the Company's equity compensation plans in effect on that date.

Plan Category	Equity Compensation Plan Information		
	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities)

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				reflected in column (a)(c)
Equity compensation plans approved by security holders(1)	4,994,923	\$	3.10	1,464,619
Equity compensation plans not approved by security holders(2)				
<b>Total</b>	<b>4,994,923</b>			<b>1,464,619</b>

(1) Includes the 2000 Stock Option Plan and the 2004 Equity Incentive Plan.

(2) As of September 30, 2007, Arrowhead did not have any equity compensation plans that were not approved by stockholders.



**Table of Contents****ITEM 6. SELECTED FINANCIAL DATA**

The table below presents selected consolidated financial data of Arrowhead and its Subsidiaries as of and for the years ended September 30, 2007, 2006, 2005, 2004 and 2003, derived from Arrowhead's audited consolidated financial statements included in this Annual Report on Form 10-K and prior years' reports filed on Form 10-K. Certain prior year amounts have been reclassified to conform to current year presentation or the retroactive application of FAS 123(R).

The selected consolidated financial data set forth below should be read in conjunction with our consolidated financial statements and related notes thereto and Management's Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this Annual Report on Form 10-K.

**Arrowhead Research Corporation & Subsidiaries Selected Financial Data****Arrowhead Research Corporation****Selected Financial Data**

	Year Ended September 30,				
	2007	2006	2005	2004	2003
<b>Consolidated Statements of Operations Data:</b>					
<b>REVENUE</b>	\$ 1,208,022	\$ 595,458	\$ 590,683	\$ 196,306	\$
<b>COST OF GOODS SOLD</b>	724,088				
<b>GROSS PROFIT ON SALES</b>	483,934	595,458	590,683	196,306	
<b>OPERATING EXPENSES</b>					
Salaries	10,048,302	6,511,641	3,239,398	555,802	25,000
Consulting	1,798,143	749,720	447,111	624,330	25,000
General and administrative	5,240,150	4,389,232	2,561,295	913,653	41,063
Research & development	20,930,548	9,036,999	3,753,975	793,354	3,375
Patents amortization	415,963	391,248	181,752		
<b>TOTAL OPERATING EXPENSES</b>	38,433,106	21,078,840	10,183,531	2,887,139	94,438
<b>OPERATING LOSS</b>	(37,949,172)	(20,483,382)	(9,592,848)	(2,690,833)	(94,438)
<b>OTHER INCOME (EXPENSE)</b>					
Gain on sale of stock in subsidiary			2,292,800		
Unrealized (loss) in marketable securities		315,616	78,761	(12,113)	
Interest	1,264,693	852,967	151,052	31,341	
Other income	329		3,308		
<b>TOTAL OTHER INCOME (EXPENSES)</b>	1,265,022	1,168,583	2,525,921	19,228	
<b>LOSS BEFORE MINORITY INTERESTS</b>	(36,684,150)	(19,314,799)	(7,066,927)	(2,671,605)	(94,438)
Minority interests	6,753,032	317,590	1,520,039	251,723	
<b>LOSS FROM CONTINUING OPERATIONS</b>	(29,931,118)	(18,997,209)	(5,546,888)	(2,419,882)	(94,438)
Loss from discontinued operations of Nanotechnica, Inc.			(1,234,233)	(108,272)	
Loss on disposal of Nanotechnica, Inc.			(73,797)		
Provision for income taxes				(800)	(800)
<b>NET LOSS</b>	\$ (29,931,118)	\$ (18,997,209)	\$ (6,854,918)	\$ (2,528,954)	\$ (95,238)

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*Amounts per common share:*

Loss from continuing operations per share, basic and diluted	\$ (0.83)	\$ (0.59)	\$ (0.30)	\$ (0.22)	\$ (0.03)
Loss from discontinued operations per share, basic and diluted			(0.07)	(0.01)	
Net loss per share, basic and diluted	(0.83)	(0.59)	(0.36)	(0.23)	
Weighted-average shares, basic and diluted	35,867,091	31,953,809	18,725,263	11,002,094	3,738,750

**Consolidated Balance Sheet Data:**

Cash, cash equivalents and marketable securities	\$ 24,120,097	\$ 28,020,304	\$ 22,543,896	\$ 9,040,554	\$ 1,355,289
Working capital	22,409,053	25,855,557	21,789,931	8,807,377	1,417,737
Total assets	29,852,952	34,525,878	29,040,721	11,915,778	1,515,939
Current liabilities	2,896,375	2,920,234	1,024,064	689,698	96,177
Minority interest	152,609	934,438	1,889,190	1,777,699	
Stockholders' equity	26,303,968	30,671,206	26,127,467	9,448,381	1,419,762

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**ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

*Overview*

Arrowhead is a development stage nanotechnology company commercializing new technologies in the areas of life sciences, electronics, and energy. Arrowhead's mission is to build shareholder value through the identification, development and commercialization of nanotechnology-related products and applications. The Company works closely with universities to source early stage deals and to generate rights to intellectual property covering promising new nanotechnologies. Arrowhead takes a portfolio approach by operating multiple subsidiaries (each a Subsidiary, and, collectively, the Subsidiaries) which allows the pursuit of multiple opportunities and diversifies risk. Currently, Arrowhead operates five majority-owned Subsidiaries focused on developing and commercializing nanotech products and applications and has funded a number of prototype development efforts in leading university labs in exchange for the exclusive right to license the technology developed in such labs.

*Majority-owned Subsidiaries*

Arrowhead owns majority interest in its Subsidiaries, securing substantial participation in any success. Each Subsidiary is staffed with its own technical and business team that focuses on its specific technology and markets while Arrowhead provides accounting, financial, strategic, and administrative services. The Company's five majority-owned Subsidiaries are commercializing a variety of nanotech products and applications, including anti-cancer drugs, RNAi therapeutics, carbon-based electronics and compound semiconductor materials. In the near term, Arrowhead expects to add to its portfolio through selective acquisition and formation of new companies.

*Sponsored Research*

In exchange for the exclusive right to license the resultant technology developed in sponsored laboratories, Arrowhead and/or its Subsidiaries have worked with some of the most highly-regarded academic institutions in the country, including the California Institute of Technology (Caltech), Stanford University, Duke University and the University of Florida, in critical areas such as stem cell research, carbon electronics and molecular diagnostics. By funding university research, Arrowhead and/or its Subsidiaries has the ability to evaluate the probability of technical success at low research cost and, if warranted, continue development at the university by leveraging the existing resources available to scientists at universities, such as laboratories and equipment, as well as operating in an atmosphere that encourages the exchange of ideas. Moreover, the cultivation of relationships in the academic community provides an additional window into other promising technologies.

*Subsidiaries*

At September 30, 2007, the Company had five majority-owned, operating Subsidiaries, Insert Therapeutics, Inc. (Insert), Calando Pharmaceuticals, Inc. (Calando), Unidym, Inc. (Unidym, formerly NanoPolaris, Inc.), Tego BioSciences Corporation (Tego) and Aonex Technologies, Inc. (Aonex). As part of its model, the Company will create subsidiaries to commercialize promising technologies or close subsidiaries based upon lack of progress of the Subsidiary.

Insert has developed Cyclosert, a proprietary drug delivery platform technology based on a nano-engineered class of linear cyclodextrin-containing polymers. IT-101, Insert's first therapeutic candidate, is a conjugate of Insert's patented nano-engineered drug delivery polymer and camptothecin, a potent anti-cancer compound. Insert's investigational new drug (IND) application for IT-101 was accepted by the U.S. Food and Drug Administration (FDA) in March 2006. A Phase I study for IT-101 began in the summer of 2006 at the City of Hope Cancer Center. Interim results from the trial were reported in June 2007. The trial is expected to be completed in 2008.

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Calando is 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 first therapeutic candidate is designed for the treatment of cancer. Calando expects to file an IND application in early 2008.

Unidym is developing high-performance, cost-effective carbon nanotube-based products for the electronics industry. Through license of intellectual property from several universities and by virtue of its April 2007 merger with Texas-based Carbon Nanotechnologies, Inc. (CNI), Unidym has assembled exclusive commercial rights related to carbon nanotube manufacture and applications. The merger also provided Unidym with the ability to manufacture carbon nanotubes on a larger scale. Unidym's initial product is a transparent conductive film designed to replace the expensive and brittle metal oxide films currently used in electronic products like flat panel displays, touch screens, OLEDs and thin film solar cells. In addition to its product development efforts, Unidym manufactures and sells carbon nanotubes to customers and has entered in joint development agreements to incorporate its carbon nanotube films into existing products.

On April 20, 2007, Tego BioSciences Corporation, a newly formed, wholly-owned subsidiary of Arrowhead, acquired the assets of C Sixty, Inc., a Texas-based company developing protective products based on the anti-oxidant properties of fullerenes. Initially, Tego is collaborating with the National Cancer Institute's Nanotechnology Characterization Lab (NCL) for preclinical studies to measure the ability of a Tego fullerene formulation to protect against harmful side effects of two anti-cancer drugs, cisplatin and adriamycin. The first stage of the studies used NCL's resources. In October 2007, Arrowhead invested \$2.4 million into Tego to fund the development of various uses for fullerenes.

Aonex is developing engineered wafers to enable manufacturers of blue and white LEDs to reduce their production costs and create higher efficiency devices. After analyzing the existing competition and scale required for success in its core markets, Aonex has opted to seek an established company with which to partner in its future commercialization efforts. Aonex is continuing to develop its technology in a phase down mode while it explores possibilities for collaboration with other companies.

### ***Critical Accounting Policies and Estimates***

Management makes certain judgments and uses certain estimates and assumptions when applying accounting principles generally accepted in the United States in the preparation to our Consolidated Financial Statements. We evaluate our estimates and judgments on an ongoing basis and base our estimates on historical experience and on assumptions that we believe to be reasonable under the circumstances. Our experience and assumptions form the basis for our judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may vary from what we anticipate and different assumptions or estimates about the future could change our reported results. We believe the following accounting policies are the most critical to us, in that they are important to the portrayal of our consolidated financial statements and require our most difficult, subjective or complex judgments in the preparation of our consolidated financial statements. For further information, see *Note 1, Organization and Significant Accounting Policies*, to our Consolidated Financial Statements which outlines our application of significant accounting policies and new accounting standards.

### ***Revenue Recognition***

Revenue from product sales are recorded when persuasive evidence exists that an arrangement existed, title had passed and delivery has occurred, the price was fixed and determinable, and collection was reasonably assured.

We may generate revenue from product sales, technology licenses, collaborative research and development arrangements, and research grants. Revenue under technology licenses and collaborative agreements typically

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consists of nonrefundable and/or guaranteed technology license fees, collaborative research funding, and various milestone and future product royalty or profit-sharing payments.

Revenue associated with up-front license fees and research and development funding payments, under collaborative agreements, is recognized ratably over the relevant periods specified in the agreement, generally the research and development period. Revenue from substantive milestones and future product royalties is recognized as earned based on the completion of the milestones and product sales, as defined in the respective agreements. Payments received in advance of recognition as revenue are recorded as deferred revenue.

### *Research and Development Expenses*

Research and development expenses include salaries and benefits, trial (including pre-clinical, clinical and other) and manufacturing costs, purchased in-process research expenses, contract and other outside service fees, and facilities and overhead costs related to our research and development efforts. Research and development expenses also consist of costs incurred for proprietary and collaborative research and development. Research and development costs are expensed as incurred.

### *Impairment of Long-lived Assets*

We review our long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of assets may not be fully recoverable or that our assumptions about the useful lives of these assets are no longer appropriate. If an impairment is indicated, the asset is written down to its estimated fair value based on quoted fair market values.

### *Valuation of Goodwill*

In accordance with *Statement of Financial Accounting Standards*, or SFAS, No. 142, *Goodwill and Other Intangible Assets*, we review goodwill (if any) for impairment annually and whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Goodwill is tested for impairment by comparing the fair value of the single reporting unit to its carrying value. If the implied fair value of goodwill is less than its carrying value, an impairment charge would be recorded.

### *Intellectual Property*

Intellectual property consists of patents and patent applications internally developed, licensed from universities or other third parties or obtained through acquisition. Patents and patent applications are reviewed for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable, and any impairment found is written off. Licensed or internally developed patents are written off over the life of the patent unless impairment occurs. Purchased patents are written off over three years, unless an impairment occurs sooner.

## **Results of Operations**

The Company had a consolidated loss of approximately \$29.9 million for the year ended September 30, 2007, compared to a consolidated loss of \$19.0 million and \$6.9 million for the years ended September 30, 2006 and 2005, respectively. During the second quarter of fiscal 2005, the Company recognized a gain of \$2.3 million applicable to the sale to third parties of a portion of Arrowhead's ownership in Insert, thereby reducing the loss for fiscal 2005 by the same amount.

The increase in the fiscal 2007 consolidated loss over fiscal 2006 and fiscal 2005 (adjusted for the one time gain in fiscal 2005) occurred in several areas. First, staffing continues to increase as the Company grows. With the phase up of Unidym starting in July of 2006 and the merger with CNI in April 2007, staffing has almost

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doubled. Staff was added within Insert and Calando to accommodate the increase in development efforts of new products and of the IND to be filed by Calando. Staff was added in fiscal 2006 to handle the increase in general, accounting and administrative responsibilities as the Company has grown and to comply with the Sarbanes Oxley Act of 2002, as amended ( SOX ). Second, Calando incurred major expenses during fiscal 2007 related to preclinical research, preparation for the filing of its Investigational New Drug application (IND) with the U.S. Food and Drug Administration, ( FDA ), to obtaining sufficient drug inventories to be able to enter Phase I Clinical Trials, and payment for preparation required to enter the trials. Third, legal expenses increased as the Company completed the merger with CNI, a private placement for Insert and a private placement for Arrowhead.

The increased loss in fiscal 2007 was also the result of a non-cash \$9.6 million charge to Purchased in-process research and development to account for the purchase of CNI, increased expenses in Unidym related to the establishment of the Menlo Park location and the addition of the Texas operations, and expenses related to Insert s continuation of Phase I clinical trials and preparation for Phase II clinical trials with Insert s drug candidate, IT-101, and preparation for Phase I clinical trials for Calando s drug candidate CALAA-01.

## **Revenues**

The Company generated revenues of \$1,175,505 for the year ended September 30, 2007, compared to \$595,458 and \$590,683 for the years ended September 30, 2006 and 2005, respectively. The revenue for fiscal 2007 consists of \$874,380 of funded research for the development of carbon nanotube applications and \$326,427 from the sale of carbon nanotubes to third parties (as a result of the merger with CNI) and \$7,394 in residual funded research. The revenue in fiscal 2006 and fiscal 2005 was for funded research and for a license and development payments paid to Calando by a third party.

## ***Operating Expenses***

The analysis below details the operating expenses and discusses the expenditures of the Company within the major categories.

For purposes of comparison, the amounts for the three years ended September 30, 2007, 2006 and 2005, are shown in the tables below. Prior period amounts have been reclassified to conform to the current period presentation.

The amounts for each period have been adjusted to include the adoption of SFAS 123R.

## ***Salary & Wage Expenses***

Arrowhead employs management, administrative and technical staff at the Arrowhead corporate offices and the Subsidiaries. Salary and wage expense consists of salary, benefits, and non-cash charges related to equity based compensation in the form of stock options. Salary and benefits are allocated to two major categories: general and administrative compensation related expense, research and development (R&D) and a small portion of salaries and wages is allocated to cost of goods sold, beginning in 2007, depending on the primary activities of each employee. The following table details salary and related expenses for fiscal 2007, fiscal 2006 and fiscal 2005.

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	Year Ended		% of		Year Ended		% of	
	September 30, 2007		expense category		September 30, 2006		expense category	
	\$				\$		\$	
G&A compensation-related	4,342	42%	1,795	28%	1,115	34%		
Stock-based compensation	2,176	21%	1,369	21%	576	18%		
R&D compensation-related	3,530	34%	3,348	51%	1,548	48%		
Cost of Goods Sold	300	3%	N/A	N/A	N/A	N/A		
<b>Total</b>	<b>\$ 10,348</b>	<b>100%</b>	<b>\$ 6,512</b>	<b>100%</b>	<b>\$ 3,239</b>	<b>100%</b>		

The Company was established in May 2003, but had only one employee until the second quarter of fiscal 2004. The major reason for the growth in compensation since fiscal 2004 has been the addition of administrative and technical staff. During this four year period, the Company started Aonex (April 2004), NanoPolaris (April 2005), Calando (February 2005), Nanotechnica (September 2004 and closed in June 2005), acquired Insert (June 2004) and Unidym (June 2006) and merged Unidym with NanoPolaris (July 2006) and later merged with Carbon Nanotechnologies, Inc. (April 2007) Arrowhead also acquired the intellectual property of C Sixty (April 2007) now held in the name of Tego BioSciences Corporation (June 2007). The merger with CNI added about 30 employees to the payroll in April 2007.

In fiscal 2007, the Company accrued the cost of the severance (approximately \$1 million) to be paid to two executives upon their departure from the Company over periods ranging from one to three years. This charge is non cash until paid but is included in G&A compensation for fiscal 2007.

In January 2007, the Company recruited a President and CEO for Insert, who left Insert at the end of May 2007. In November 2007, a new President and CEO was hired for Insert and Calando. In June 2007, the Company recruited a President and CEO for Unidym. G&A related compensation in fiscal 2006 when compared to fiscal 2005 is the result of hiring and subsequent departure of a President for Arrowhead and the associated severance. In addition to the cost associated with the former President and his severance, the corporate office incurred additional costs associated with the hiring of one additional executive to support the Company and the Subsidiaries in the areas of SOX implementation, financial analysis and budgeting in March 2006. In May 2005, Arrowhead's CEO pay was adjusted upward by the Compensation Committee. Prior to that time, the CEO was paid a nominal amount to accommodate the Company's start up status while the Company obtained financing and began operations. Prior to January 2005, the President of Insert/Calando was a consultant. Beginning in January 2005, he became a full time employee. Both Insert and Calando hired administrators in fiscal 2005 which further added to the increase in fiscal 2006. In December 2007, the Company hired a new President and Chief Executive Officer.

In fiscal 2007, fiscal 2006 and fiscal 2005, the Company and its Subsidiaries also had performance reviews and increased the pay of existing employees where warranted. These increases contributed to the growth in salary expense over the three year period.

Stock-based compensation is a non-cash charge related to the issuance of stock options to new and existing employees and the vesting of these options. This expense is recorded pursuant to the adoption of SFAS 123R which requires expensing of stock-based compensation for all options granted. Stock options are awarded to new full time employees and to existing employees. While the number of options has increased overall, this number will vary from year to year depending on hiring, on terminations and on awards to new and existing employees.

Research and development (R&D) compensation expense increased each fiscal year as the Company has grown. However, the primary factors which led to growth in fiscal 2007 was the June 2006 acquisition of

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Unidym and subsequent ramp-up of development activities, as well as the April 2007 merger with CNI and the resulting consolidation with its Texas operations under Unidym. In addition, technical staff was added at Insert and Calando to increase the scope of development at each subsidiary. The expense was partially offset by the termination of several employees at Aonex early in fiscal 2007. The Company expects that salaries and wages will continue to grow in fiscal 2008 as more people are hired to support development within the Subsidiaries.

**General & Administrative Expenses**

The following table summarizes our general and administrative expenses for each of the fiscal years ended September 30, 2007, 2006 and 2005.

(in thousands)

	Year Ended September 30, 2007	% of expense category	Year Ended September 30, 2006	% of expense category	Year Ended September 30, 2005	% of expense category
Professional/outside services	\$ 1,381	26%	\$ 1,559	35%	\$ 902	35%
Recruiting	550	11%	200	5%	24	1%
Facilities related	303	6%	337	8%	89	3%
Patent expense	902	17%	849	19%	397	15%
Travel expense	649	12%	288	7%	172	7%
Business insurance	494	9%	258	6%	145	6%
Depreciation-G&A	191	4%	294	7%	277	11%
Communications and technology	250	5%	153	3%	210	8%
Office expense	269	5%	259	6%	200	8%
Others	251	5%	192	4%	145	6%
<b>Total</b>	<b>\$ 5,240</b>	<b>100%</b>	<b>\$ 4,389</b>	<b>100%</b>	<b>\$ 2,561</b>	<b>100%</b>

Professional/outside services include general legal, accounting, and other outside services retained by the Company and its Subsidiaries. All periods include normally occurring legal and accounting expenses related to SEC compliance and other corporate matters as well as legal expenses related to intellectual property matters. Legal expenses for fiscal 2007 include expenses applicable to the merger with CNI (approximately \$350,000) and a private placement for Arrowhead and legal expenses related to a financing by Insert including a \$5 million follow-on investment by Arrowhead.

Recruiting expense increased dramatically due to the payment of approximately \$150,000 to hire a president for Insert in the first quarter of Fiscal 2007 and the payment of approximately \$150,000 in the second quarter of Fiscal 2007 related to the search for a president for Unidym. Recruiting fees are expected to continue as the Company builds out its management team, but the cost is not predictable at this time.

The Company incurred additional expense for new or expanded leases as Subsidiaries were established or expanded in fiscal 2006. The increase in fiscal 2006 over fiscal 2005 was primarily related to the Company's move to larger corporate offices in March 2006, and the move of Insert into new laboratory facilities in June 2006. In addition, Calando moved in July 2006 into the facility previously occupied by Insert which increased Calando's rent expense. In June 2006, the Company purchased the assets of Unidym and established office and lab facilities for Unidym. Facilities related expenses remained stable in fiscal 2007 and are expected remain stable in fiscal 2008.

Patent expenses for the last two fiscal years remain constant but the mix has changed. The increase in fiscal 2007 over fiscal 2006 was due to the patent portfolio acquired by the Company was a result of the CNI merger.



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The large dollar increase from fiscal 2005 to fiscal 2006 was primarily due to the establishment of NanoPolaris (now called Unidym) and the gathering of patents from various universities related to carbon nanotubes and a retro-active billing by Caltech (\$300K) related to the patents that Insert has for the delivery system.

With the growth of the Company through mergers and acquisitions, the Company now has multiple locations in California, Texas and New York City. The increased travel among those locations has resulted in a significant increase in travel expense in fiscal 2007 compared to fiscal 2006 and fiscal 2005. In addition, the employees have traveled to Europe and Asia in pursuit of collaborations and agreements. The Company continues to pursue increased public and investor relations activities, and new business initiatives. Travel expense can be expected to increase in the future.

Insurance increased as a result of increases in limits and coverage as the Company has grown. For instance, the director and officer insurance coverage was increased from \$5 million in fiscal 2005 to \$15 million in fiscal 2006/fiscal 2007. The Company incurred this expense in anticipation of attracting new executive management to the Company and its Subsidiaries. In addition, Insert has additional insurance as a result of its entry into clinical trials in fiscal 2006 and Calando is expected to have the same expense in fiscal 2008 as it enters clinical trials. The Company will continue to see this expense increase as the Company grows.

The primary reason for the decrease in depreciation was completion of the write off of Aonex leasehold improvements in June 2006. It is our policy to write off leasehold improvements over the initial term of the lease even when the lease is later extended.

**Research and Development Expenses**

The bulk of Arrowhead's R & D expenses for fiscal 2007, fiscal 2006 and fiscal 2005 were related to research and development activities by Arrowhead's Subsidiaries. Currently, Arrowhead operates five majority-owned Subsidiaries, each focused on development and commercialization of nanotechnology products or applications and has funded a number of sponsored research efforts in leading university labs in exchange for the exclusive right to license the technology developed in such labs. Each Subsidiary is staffed with its own technical team that focuses on its specific technology and markets while Arrowhead provides financial, strategic and administrative resources.

The following table details R&D expenses for the three fiscal years ended September 30, 2007, 2006 and 2005:

(in thousands)

	Year Ended September 30, 2007	% of expense Category	Year Ended September 30, 2006	% of expense category	Year Ended September 30, 2005	% of expense category
Outside labs & contract services	\$ 6,658	32%	\$ 3,578	40%	\$ 1,347	36%
In-Process R&D purchased	9,598	46%	2,448	27%	N/A	N/A
Laboratory supplies & services	1,246	6%	916	10%	761	20%
Facilities related	830	4%	461	5%	332	9%
Sponsored research	1,343	6%	1,170	13%	944	25%
Depreciation-R&D	397	2%	244	3%	200	5%
Other research expenses	859	4%	220	2%	183	5%
Total	\$ 20,931	100%	\$ 9,037	100%	\$ 3,767	100%

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Outside labs & contract services involves work done on behalf of the Subsidiaries. Using contract services allows each Subsidiary to keep its cost of development to a minimum, only hiring those people that it will need in the long run. Therefore, this expense can increase or decrease depending on the need of each Subsidiary. These expenses have increased significantly over the past three years, primarily due to Insert's Phase I clinical trials of IT-101, Calando's preparation for the anticipated initiation of clinical trials and to the full year that Unidym has been operating. Further, continued growth in the Company through mergers, acquisitions and formation of new subsidiaries could increase this number in the future.

Increased outside labs and contract services expense for Insert and Calando in fiscal 2007 over fiscal 2006 are due to outsourced preclinical studies for pipeline candidates for Insert, outsourced preclinical studies in preparation for the filing of an IND application filing by Calando, outsourced manufacture of Calando's therapeutic candidate for preclinical and clinical studies and regulatory consulting for the ongoing clinical trials by Insert and for the preparation of the IND filing by Calando. Unidym incurred similar expense related to the outsourcing of process development. Fluctuations in this expense category have been experienced in previous periods and can be expected to continue due to the differences in the demands of the development plans from quarter to quarter and year to year.

The increase in laboratory supplies and services and facilities related expenses over the same periods in prior years is primarily related to the commencement of the development effort for the transparent conductive film by Unidym starting in June 2006. From inception until the June 2006 acquisition of the net assets of Unidym, NanoPolaris (which subsequently changed its name to Unidym, Inc.) was primarily involved in the identification and licensing of intellectual property related to the manufacture and use of carbon nanotubes and had no employees. Starting in February 2007, Unidym rented laboratory space in Menlo Park and incurred expense to set up the lab. Laboratory supplies and facility expense related to Unidym's Texas facility also contributed to the increase in the expense for the year ended September 30, 2007. The build-out and move of Insert's offices and labs and the move of Calando into the lab previously occupied by Insert also contributed to the expense, as did the increase in rent at both facilities.

On March 14, 2006, Insert received approval for its IND application from the FDA for its lead anti-cancer therapeutic, IT-101 and began Phase I clinical trials in the third quarter of calendar 2006. In advance of the clinical trials, Insert was required to pay the cost to manufacture the entire amount of IT-101 necessary to complete animal trials in fiscal 2005 and Phase I clinical trials which started in fiscal 2006. It is the Company's policy to expense the cost of the supplies and services when received even if they may benefit subsequent years. Laboratory supplies & services remained fairly constant in fiscal 2006 and fiscal 2005. The cost of the supplies and services expensed in both years was approximately \$1.3 million. While Insert was beginning Phase I clinical trials, Calando was beginning large mammal studies. While the purchase of supplies and animal studies of this magnitude is not a normal recurring expense, the continued development of new products in the Subsidiaries will result in increased R&D laboratory supplies and services in the future.

In fiscal 2007, Purchased in-process R&D represents the cost incurred for the CNI/Unidym merger in excess of the value of identifiable tangible and intangible value of assets at the time of the merger. CNI's focus has been on the development of manufacturing processes and applications for carbon nanotubes. The timing and estimated costs to complete project and estimated cash flows are impossible to determine. In connection with the merger, certain shareholders assumed \$5.4 million of CNI's debt in exchange for \$5.4 million of restricted Arrowhead common stock. In addition, Unidym Series A Preferred Stock with an estimated value of \$4.2 million was issued in exchange for all the outstanding stock in CNI. The total amount of consideration for the CNI merger, estimated at \$9.6 million, was expensed to Purchased in-process R&D.

In fiscal 2006, the Company accounted for the acquisition of minority interests of Calando as a purchase of in-process research and development. Arrowhead purchased 1,224,000 shares of Calando's common stock from various minority shareholders for an aggregate price of \$2,448,000 in fiscal 2006. The purchases were made through a series of transactions during the year. Payment for the shares included a total of \$1,370,667 in cash and \$1,077,333 of Arrowhead common stock.

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Facility related expense increases in fiscal 2007 was primarily the result of leasing offices and lab space for Unidym in Menlo Park, California and the merger of Unidym and CNI in April 2007. In addition, Calando is paying more for its new space which it occupied just prior to the beginning of fiscal 2007.

Sponsored research expense increased slightly in fiscal 2007 over fiscal 2006 and fiscal 2005. The Company has added two sponsored research projects that were not in place at September 30, 2006. As part of the merger with CNI, Unidym has taken over the payments, rights and responsibilities related to the sponsored research projects at Duke and at the University of Florida. Subsequent to the year ended September 30, 2007, the Company decided to cancel the two sponsored research projects at Caltech pursuant to the provisions of the respective sponsored research agreements.

Use of outside labs and contract services allows the Subsidiaries access to equipment which is expensive to buy and which may not be needed on a regular basis. Arrowhead encourages its Subsidiaries to purchase assets when justified and to use outside services when possible to limit investment in capital equipment. This mode of operation keeps the depreciation low as a percentage of total cost.

The table below sets forth the approximate amount of Arrowhead's cash expenses for research and development projects at each Subsidiary for the periods described below.

Name of Subsidiary / Project	Project	Project	Project	Project
	expenses for year ended	expenses for year ended	expenses for year ended	expenses from inception of Project through
	September 30, 2007	September 30, 2006	September 30, 2005	September 30, 2007
Calando Pharmaceuticals, Inc. / CALAA-01	\$ 6.7 Million	\$ 2.1 Million	\$ 0.3 Million	\$ 9.1 Million
Insert Therapeutics/ IT 101	\$ 7.5 Million	\$ 5.2 Million	\$ 2.0 Million	\$ 14.7 Million
Unidym, Inc. / Thin Film Carbon Nanotubes	\$ 5.7 Million	\$ 0.9 Million		\$ 6.6 Million
Aonex Technologies, Inc. / Wafer Fabrication	\$ 0.7 Million	\$ 2.1 Million	\$ 2.2 Million	\$ 5.8 Million
Tego Biosciences Corporation / Fullerene Anti-oxidants				
Total of all listed Subsidiaries	\$ 20.6 Million	\$ 10.3 Million	\$ 4.5 Million	\$ 36.2 Million

**Calando Pharmaceuticals, Inc.**

Calando's lead product candidate, CALAA-01, is a formulation containing Calando's proprietary drug delivery technology with a siRNA duplex targeting the M2 subunit of ribonucleotide reductase, a well-established cancer target. Calando is preparing an investigational new drug (IND) application for filing with the FDA and expects to begin its first clinical trial in 2008. Calando's research and development efforts on CALAA-01 are preliminary, and there is no assurance that this compound will be successful. Advancing this development candidate into human clinical trials is dependent on FDA review and approval of Calando's IND application. Research and development expenses related to CALAA-01 are reflected in the tables above. It is not possible at this time to accurately determine the final cost of CALAA-01, the completion date, or when revenue will commence. If Calando meets its milestone objectives (see *Note 7, Commitments and Contingencies*, to our Consolidated Financial Statements for an explanation of those milestones), it should have sufficient capital to fund its operations until the end of the second quarter of fiscal 2008.

**Insert Therapeutics, Inc.**

Insert was purchased by the Company in June 2004. Insert's primary asset was a license from Caltech for patents and other intellectual property for the use of cyclodextrin polymers in drug delivery applications. In fiscal 2005, Insert continued research and development of its anti-cancer therapeutic IT-101, which uses the technology covered by the Caltech patents. IT-101 is a conjugate of the cyclodextrin polymer and the anti-cancer agent, camptothecin. On March 14, 2006, Insert's IND application for IT-101 was accepted by the FDA and Insert began a Phase I clinical trial at the City of Hope in the third quarter of calendar 2006.



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To build its pipeline of products, Insert has investigated conjugates of the cyclodextrin delivery molecule as well as two other potent anti-cancer agents, epotholones and tubulysins, and a steroid treatment for chronic inflammation. Insert is also preparing for Phase II trials of IT-101. Research and development expenses related to IT-101 are reflected in the tables above. Insert's research and development activities related to IT-101 and other pipeline candidates are preliminary, and there is no assurance that they will be successful. It is not possible at this time to accurately determine the final cost of IT-101, the completion date, or when revenue will commence.

### **Unidym, Inc.**

Arrowhead founded the company now operating as Unidym in April 2005. Since inception, the company has aggregated intellectual property related to carbon nanotube manufacturing and product applications. The portfolio has been built through licensing of patents and other intellectual property from various universities, through sponsored research, and by the acquisition of Unidym, Inc., a UCLA spin out developing transparent electrodes, and a merger with CNI, a Texas-based company manufacturing and selling carbon nanotubes and developing products containing carbon nanotubes. Unidym is currently generating revenue by producing and selling carbon nanotubes, and is anticipated to generate additional revenue by continuing to produce and sell products and product applications using carbon nanotubes and by licensing technology to third parties beginning in 12 to 24 months.

In connection with the merger, in exchange for Arrowhead Common Stock valued at \$5.4 million, Arrowhead acquired preferred stock in CNI originally issued to certain shareholders in exchange for their assumption of CNI's debt in the amount \$5.4 million. In connection with the merger, Unidym also issued 5,000,000 shares of Series A Preferred Stock valued at \$4.2 million for all of the outstanding stock of CNI. Unidym wrote off approximately \$9.6 million to Purchased In Process R&D. See Note 4 to the Consolidated Financial Statements and the discussion of research and development expenses above. Also in connection with the merger, Arrowhead accelerated a planned capital contribution of \$4,000,000 to Unidym.

Development, manufacturing, and sale of cost effective electronic products incorporating carbon nanotubes will require significant investment and take a long time. There are a variety of technical, cost, and marketing barriers that must be overcome. It is not possible at this time to predict the final cost of developing Unidym's transparent conductive film or other carbon nanotube products, the final cost of scaling up the manufacturing process for cost effective production of carbon nanotubes for products, or when or if Unidym will generate significant licensing revenue or become profitable. Subsequent to September 30, 2007, Unidym closed a private placement for approximately \$10.8 million. Unidym currently has sufficient cash to operate through fiscal 2008 at the current rate of cash consumption.

### **Tego BioSciences Corporation**

In April 2007, Tego BioSciences Corporation (Tego) was formed to acquire the assets of C Sixty, Inc. Tego is focused on developing and commercializing products for the health care industry based on modified buckminsterfullerenes (also known as fullerenes or buckyballs). Tego's product pipeline includes therapeutic skin creams, cancer therapies, and drugs targeting central nervous system disorders. Tego is also exploring the use of modified fullerenes as contrast agents in magnetic resonance imaging (MRI).

Initially, Tego does not intend to expand its internal staff to develop these products. Rather, for the first eighteen months, the company intends to use third parties to do most of the development work with a small staff located in Houston, Texas, to oversee the progress and to direct collaborations and licensing of the intellectual property. A new President and CEO was appointed effective October 25, 2007. At the same time, the Company invested \$2.4 million in Tego to enable the subsidiary to contract development with third parties.

### **Aonex Technologies, Inc.**

Aonex is currently seeking a partner to help in the continued development of blue and white LEDs. Aonex engineers wafers that are comprised of thin films of materials suitable for fabrication of blue and white LEDs,

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and that have been bonded onto specially engineered support wafers using a proprietary process. By optimizing the support wafer's properties, Aonex is able to simplify the manufacture of high efficiency LED structures, improve yields, and offer a viable path to larger wafer sizes (and corresponding lower costs). Aonex has performed testing of prototypes of its products and is shipping samples to potential partners. Research and development expenses related to Aonex wafers are reflected in the tables above. Aonex continues to build and ship product but in a phase down mode. It is not possible at this time to accurately determine the final cost of Aonex development efforts, the completion date, or when revenue will commence.

### **Factors Affecting Further R&D Expenses**

The Company expects that research and development expenses will continue to increase in the foreseeable future as it adds personnel, expands its pre-clinical research, begins clinical trial activities, and increases its regulatory compliance capabilities. The amount of these increases is difficult to predict due to the uncertainty inherent in the timing and extent of progress in the Company's research programs. As the Company's research efforts mature, it will continue to review the direction of its research based on an assessment of the value of possible commercial applications emerging from these efforts.

In addition to these general factors, specific factors that will determine the eventual cost to complete the current projects at Insert and Calando include the following:

the number, size and duration of clinical trials required to gain FDA approval;

the costs of producing supplies of the drug candidates needed for clinical trials and regulatory submissions;

the efficacy and safety profile of the drug candidate; and

the costs and timing of, and the ability to secure, regulatory approvals.

It is possible that the completion of studies could be delayed for a variety of reasons, including difficulties in enrolling patients, delays in manufacturing, incomplete or inconsistent data from the pre-clinical or clinical trials, and difficulties evaluating the trial results. Any delay in completion of a trial would increase the cost of that trial, which would harm the Company's results of operations. Due to these uncertainties, the Company cannot reasonably estimate the size, nature nor timing of the costs to complete, or the amount or timing of the net cash inflows from Insert or Calando's current activities. Until the Company obtains further relevant pre-clinical and clinical data, it will not be able to estimate its future expenses related to the Subsidiaries' programs or when, if ever, and to what extent, the Company will receive cash inflows from resulting products.

### ***Sponsored Research***

In fiscal 2007, the Company continued to sponsor research at Caltech (commencing in October 2003), Stanford (commencing in June 2005), Duke (commencing in December 2005) and the University of Florida (commencing in August 2006.) The number of research projects can fluctuate as the Company adds or terminates projects. For instance, two sponsored research projects at Caltech were terminated in the first quarter of Fiscal 2005. These projects were replaced by sponsored research agreements at Duke University and the University of Florida so while the mix has changed, the dollars expended are about the same. As the Company grows, sponsored research is expected to increase as more opportunities are identified. As part of the merger of Unidym and CNI, the Duke and Florida sponsored research projects were transferred from Arrowhead to Unidym. It is believed that results from these sponsored research projects are directly applicable to the ongoing development efforts at Unidym, so the rights and obligations should be borne by Unidym. Subsequent to September 30, 2007, the two projects at Caltech were cancelled as the Company did not see any near term benefits to continuing the research. The research agreement with Stanford ended in May 2007.

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### ***Consulting***

Consulting fees total approximately \$1,798,000 for fiscal 2007. Of the total year-to-date consulting fees, approximately \$715,000 was incurred at Unidym, \$680,000 at Insert, and \$342,000 at Calando.

Unidym incurred approximately \$466,000 in consulting fees related to manufacturing processes for carbon nanotubes and an additional \$249,000 for business strategy and technical consultation. One consultant was paid approximately \$178,000 to develop a process for manufacture of sheets of thin film nanotubes. Temporary help in Houston to support development and manufacture of carbon nanotubes cost an additional \$150,000. Cost related to thin film transistors was about \$55,000.

Insert incurred approximately \$364,000 in business strategy consulting and travel related expenses including \$38,000 paid to Mr. Jacobs for consulting services prior to his employment at Insert full time as its President and CEO on January 1, 2007. The major expense in this area was approximately \$188,000 spent in the third quarter of fiscal 2007 for strategic planning and marketing. Mr. Jacobs left at the end of May and this expense was reduced as Insert was still conducting clinical trials and did not as yet have a product. Insert also incurred an additional \$316,000 for regulatory (\$21K), clinical trials (\$137K) and scientific consulting (\$158K) for fiscal 2007.

Calando incurred approximately \$330,000 for regulatory work related to the filing of an IND with the FDA (\$141K), scientific consulting (\$142K) and clinical consulting (\$47K).

In fiscal 2006, consulting fees consisted of \$332,000 paid for strategic business and governance consulting, acquisition related consulting of approximately \$175,000, professors/non employee subsidiary founders of approximately \$128,000, advisory board fees of about \$68,000 and approximately \$47,000 for consultants for regulatory and clinical trial services

In fiscal 2005, consulting fees consisted of approximately \$330,000 paid for strategic business and governance consulting, to Caltech professors/non employee subsidiary founders of approximately \$71,000, director and advisory board fees were about \$35,000 and technical consulting of approximately \$11,000.

The use of consultants with diverse backgrounds enabled the Company to accomplish various objectives without having to add full time staff.

### ***Leveraged Technology and Revenue Strategy***

Arrowhead continues to follow its strategy to leverage technology which is being or 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, other than carbon nanotubes, 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.

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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.

On April 20, 2007, Unidym and CNI merged. Unidym then had the manufacturing capability to make carbon nanotubes which it uses internally for product development and sells externally to third parties. Prior to this merger, the only revenue generated by the Company was through grants from public and private entities and through one licensing deal. While the ultimate goal of the Company is to generate revenue through the sale of products and/or the licensing of technology, the Company does record revenue from grants and from development fees. Revenue from grants and development fees are considered to be reimbursements for efforts performed on behalf of third parties and not part of the Company's primary strategy to generate revenue.

Unidym generated combined revenues from grants and sales of carbon nanotubes totaling approximately \$1,201,000 in fiscal 2007. The remaining revenue of \$7,000 was from a remaining Calando grant.

In fiscal 2006, Calando generated approximately \$ 311,000 in revenue applicable to a license with Benitec Ltd. for the combination of Calando's polymeric RNA interference ( RNAi ) delivery technology with Benitec's RNAi-based therapeutic for the hepatitis C virus ( HCV ). The license was signed in June 2005 and called for a upfront fee of \$150,000, per year and reimbursement for development expenses that Calando incurred on Benitec's behalf. The fee was paid in fiscal 2006 at which time Calando booked the revenue. On July 31, 2006, the License Agreement with Benitec was terminated by mutual agreement.

Also in fiscal 2006, Aonex recognized revenue of about \$134,000 related to an SBIR grant and other research fees. During fiscal 2006, Arrowhead was told by the Small Business Administration that it no longer qualified as a small business because it could not show that 51% of its shareholders were U.S. citizens or legal resident aliens. Therefore, the Company does not expect to receive any small business funding in the future.

In fiscal 2005, the bulk of the revenue (approximately \$537,000) came from grants Insert received prior to being acquired by Arrowhead. In addition, Calando generated about \$44,000 from the Benitec license and Aonex had about \$10,000 applicable to the SBIR grant.

Except for the sale of carbon nanotubes, the Company does not expect any product sales in fiscal 2008. 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 licenses, contracts and collaborations with third parties. The award of such grants and contracts depends on numerous factors, many of which are not in the Company's control and, therefore, it is difficult to predict if this strategy will be successful.

## **Liquidity and Capital Resources**

Since inception in May 2003, the Company has incurred significant losses. As of September 30, 2007, the Company had \$24.1 million in cash and cash equivalents compared to \$28.0 million in cash and cash equivalents and marketable securities at September 30, 2006. The Company's investment objectives are primarily to preserve capital and liquidity and secondarily to obtain investment income. The Company invests excess cash in certificates of deposit, U.S. government obligations and high grade commercial paper.

The Company's operating activities have required significant amounts of cash. This trend will continue through fiscal 2008 as the Company's Subsidiaries continue to develop and refine their products and technology. During this period the Company does not expect to generate significant amounts of revenue. It is projected that the Company and its Subsidiaries will continue to add staff, property, and equipment during fiscal 2008. In addition, the Company expects to continue to invest in new sponsored research projects and new business opportunities. At September 30, 2007, the Company had the right to provide, in its sole discretion, an additional \$6 million to Calando if certain milestones are reached at specified times. These capital commitments will be used for research and development, for business development and salaries. The remainder of the cash will be used to fund ongoing operations. The Company believes that the cash on hand at September 30, 2007, is sufficient to meet all existing obligations and fund existing operations in fiscal 2008.



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Since inception, the Company has funded operations and acquisitions through the issuance of equity. As of September 30, 2007, the Company had raised approximately \$79 million through the sale of Common Stock and the exercise of Warrants. New business opportunities may require additional cash resources. In the future, the Company may seek additional funding through public or private financing, through collaborations and/or through private and U.S. government grants.

Except for copy machines, the Company does not lease any equipment and purchases all of its required capital assets. To date, when leasing facility space, the Company has been successful in having most leasehold improvements paid for by the landlord and included in the lease cost. The Company may not be able to do so in all cases going forward.

**Off-Balance Sheet Arrangements**

We do not have and have not had any off-balance sheet arrangements or relationships.

**Inflation and Changing Prices**

Inflation has not generally been a material factor affecting our financial condition, results of operations or cash flows in the periods shown. Management does not believe that inflation will be a material factor in fiscal 2008, even though our general operating expenses, such as salaries, employee benefits and facilities costs are subject to normal inflationary pressures.

**Contractual Obligations and Commitments**

Our contractual commitments as of September 30, 2007 are summarized below by category in the following table:

	Total	Less than 1 year	>1-3 Years	>3-5 Years	More than 5 Years
Operating Lease Obligation	\$ 1,606,175	\$ 699,620	\$ 777,265	\$ 129,290	\$
Sponsored Research(1)	\$ 409,160	\$ 409,160	\$ 0	\$ 0	\$

- (1) The sponsored research obligations in the table above include our commitments to Duke University, the University of Florida and Caltech. Two sponsored research projects at Caltech were cancelled in October and December 2007.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

We manage our fixed income investment portfolio in accordance with our Investment Policy that has been approved by our Board of Directors. The primary objectives of our Investment Policy are to preserve principal, maintain a high degree of liquidity to meet operating needs, and obtain competitive returns subject to prevailing market conditions. Investments are made primarily in certificates of deposit, U.S. government agency debt securities and high grade commercial paper. Management may use additional investment vehicles as long as the vehicle meets the Investment Objectives and Minimum Acceptable Credit Quality. Our Investment Policy specifies credit quality standards for our investments. We do not own derivative financial instruments in our investment portfolio.

As of September 30, 2007, we have no debt, no derivative instruments outstanding and we did not have any financing arrangements that were not reflected in our balance sheet.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

Financial statements and notes thereto appear on pages F-1 to F-21 of this Annual Report on Form 10-K.

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**ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.**

None.

**ITEM 9A. CONTROLS AND PROCEDURES.**

Our chief executive officer and our chief financial officer, after evaluating our disclosure controls and procedures (as defined in Securities Exchange Act of 1934 (Exchange Act) Rules 13a-15(e) and 15-d-15(e)) as of the end of the period covered by this Annual Report on Form 10-K (Evaluation Date) have concluded that as of the Evaluation Date, our disclosure controls and procedures are effective to ensure that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms, and to ensure that information required to be disclosed by us in such reports is accumulated and communicated to our management, including our chief executive officer and chief financial officer where appropriate, to allow timely decisions regarding required disclosure.

**Management's Annual Report on Internal Control over Financial Reporting**

*Internal Control over Financial Reporting*

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. This process includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of the internal control over financial reporting to future periods are subject to risk that the internal control may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

*Management's Assessment of the Effectiveness of our Internal Control over Financial Reporting*

Management has evaluated the effectiveness of our internal control over financial reporting as of September 30, 2007. In conducting its evaluation, management used the framework set forth in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our evaluation under such framework, our management has concluded that our internal control over financial reporting was effective as of September 30, 2007.

*Attestation Report*

Rose, Snyder & Jacobs, the independent registered public accounting firm that audited our consolidated financial statements included in this Annual Report on Form 10-K, independently assessed the effectiveness of our internal control over financial reporting. Such attestation report is included below under the heading Attestation Report of Independent Registered Public Accounting Firm.

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**Attestation Report of Independent Registered Public Accounting Firm**

**Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting**

The Board of Directors and Stockholders of Arrowhead Research Corporation

We have audited Arrowhead Research Corporation's internal control over financial reporting as of September 30, 2007, based on criteria established in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Arrowhead Research Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As indicated in the accompanying Management's Annual Report on Internal Control Over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Carbon Nanotechnologies, Inc. (CNI), (Unidym Inc.'s operations in Houston, Texas), which is included in the 2007 consolidated financial statements of Arrowhead Research Corporation and constituted \$474,000 of the total assets at September 30, 2007 and \$1,200,627 of total revenues for the year then ended. Our audit of internal control over financial reporting of Arrowhead Research Corporation also did not include an evaluation of the internal control over financial reporting of CNI.

In our opinion, Arrowhead Research Corporation maintained, in all material respects, effective internal control over financial reporting as of September 30, 2007, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Arrowhead Research Corporation as of September 30, 2007 and 2006, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of

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the three years in the period ended September 30, 2007, and for the period from May 7, 2003 (inception) through September 30, 2007 of Arrowhead Research Corporation and our report dated December 7, 2007 expressed an unqualified opinion thereon.

/s/ Rose, Snyder & Jacobs

A Corporation of Certified Public Accountants

Encino, California

December 7, 2007

**Changes in Internal Control Over Financial Reporting**

There was no change in our internal control over financial reporting that occurred during the fourth quarter of the year ended September 30, 2007, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**ITEM 9B. OTHER INFORMATION**

Not applicable

**Table of Contents****PART III****ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT.**

The following table sets forth, as of December 11, 2007, information about our executive officers and directors of the Company for fiscal 2007 are as follows:

<b>Name</b>	<b>Age</b>	<b>Position with Arrowhead</b>
Christopher Anzalone	38	Chief Executive Officer, President and Director
R. Bruce Stewart	70	Executive Chairman of the Board
Joseph T. (Ted) Kingsley	62	Chief Financial Officer and Secretary
John Miller	29	Vice President, Business Development
Larry Stambaugh	62	President and Chief Executive Officer of Calando and Insert
John Petrovich	52	Former President and Chief Executive Officer of Calando and Insert
Arthur Swift	49	President and Chief Executive Officer of Unidym
Edward W. Frykman	71	Director
Leroy T. Rahn	72	Director
Charles P. McKenney	68	Director

**Christopher Anzalone** was appointed President and Chief Executive Officer of the Company on December 1, 2007. From 2005 until the present, Dr. Anzalone was CEO and principal in the Benet Group LLC, a private equity firm focused on creating and building new nanobiotechnology companies from university generated science. While at Benet Group, Dr. Anzalone was founding CEO in two portfolio companies, Nanotope Inc., a tissue regeneration company, and Leonardo Biosystems Inc., a cancer drug delivery company. Prior to his tenure at Benet Group, from 1999 until 2003, he was a partner at the Washington DC-based private equity firm Galway Partners, LLC. There, he was in charge of sourcing, structuring, and building new business ventures and was founding CEO of NanoInk, Inc., a leading nanolithography company. He continued as CEO of NanoInk until 2004. Dr. Anzalone holds a Ph.D. and M.A. in Biology from UCLA and a B.A. in Government from Lawrence University.

**R. Bruce Stewart** is Executive Chairman of the Board of Directors of the Company. Prior to December 1, 2007, Mr. Stewart was Arrowhead's Chief Executive Officer and Chairman of the Board of the Company since January 2004. Mr. Stewart was the Chairman of the Board of the predecessor California corporation since its inception in May 2003 and devoted much of his time from early in 2003 to development of its plan of operations. Mr. Stewart founded Acacia Research Corporation in March 1991, and was employed by Acacia Research Corporation in various capacities until January 2003, serving as its President from inception through January 1997, Chairman until April 2000, and as a senior advisor until January 2003. From August 1977 to March 1991, Mr. Stewart was the President of Annandale Corporation. He also was a licensed principal of Annandale Securities, Inc., a licensed broker-dealer.

**Joseph T. (Ted) Kingsley** has been Arrowhead's Chief Financial Officer and Secretary since September 2004. Mr. Kingsley was Arrowhead's Interim President of the Company from June 2, 2006, until December 1, 2007. 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.

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

**Larry G. Stambaugh** was appointed President and Chief Executive Officer of Calando and Insert effective November 1, 2007. From 1993 until 2006, Mr. Stambaugh was Chairman, CEO and co-founder of Maxim Pharmaceuticals, Inc. At Maxim, he established a public, global biopharmaceutical company with a pipeline of product candidates for life-threatening cancers and liver diseases. During his time with Maxim he took the company public in the U.S. and Europe, conducted 17 clinical trials, including four phase 3 studies, in over 20 countries, established several corporate partnerships with large pharmaceutical companies and acquired a promising biotechnology company. In 2006, he merged Maxim with an East Coast biotech company. Previously, he was the Chairman, President and CEO for ABC Laboratories, a world-leading environmental research laboratory serving Fortune 100 pharmaceutical and chemical companies. Mr. Stambaugh has worked as a top executive in banking, manufacturing, and retail and began his career at KPMG. He has a B.B.A. from Washburn University and is a C.P.A.

**John Petrovich** is Executive Vice President of Calando and Insert. He has been with each company since inception in 2005 and 2000, respectively and acted as President and Chief Executive Officer of each company until October 31, 2007, except for a period between January and May 2007 when another CEO was appointed at Insert. He brings general management, strategic planning, legal and fundraising expertise to both companies. His recent management activities include preparing the IND for Calando, guiding the development of the Cycloset<sup>®</sup> delivery system that has been licensed to Calando by Insert, and also led the drive to Phase I clinical trials for Insert<sup>®</sup> lead anti-cancer compound, a Cycloset-enhanced form of camptothecin. He earned his B.S. in Business Administration/Finance from the University of Southern California and his Juris Doctor from the UCLA School of Law.

**Arthur L. Swift** has been President and Chief Executive Officer of Unidym, Inc. since June 2007. He comes to Unidym from Transmeta Corporation, an innovative semiconductor company in the Silicon Valley, where he most recently held the position of President and Chief Executive Officer. Prior to his promotion to CEO, he was Senior Vice President of Marketing. At Transmeta, Mr. Swift was instrumental in transforming the company's strategy from selling semiconductor chips to developing and licensing intellectual property, a change that nearly doubled Transmeta's revenue in the first two years after the strategy shift. Prior to Transmeta, Art held senior leadership roles ranging from President and Chief Operating Officer at an embedded software startup, Linuxworks, to Vice President and General Manager at a variety of large divisions of the established chip-maker Cirrus Logic. Art has also held senior marketing and engineering positions with Summit Microelectronics, Sun Microsystems, Digital Equipment, and Fairchild Semiconductor. Mr. Swift earned a B.S. in Electrical Engineering at the Pennsylvania State University.

**Edward W. Frykman** has been a director of the Company since January 2004. Mr. 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

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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** has been a director of the Company since January 2004. Mr. Rahn was a partner with the intellectual property law firm of Christie, Parker & Hale from 1968 to 2003, 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 been a director of the Company since April 2004. Mr. McKenney has maintained a government affairs law practice in Pasadena, California, since 1989, representing businesses and organizations in their relations with state and local government regarding their obligations under state and local land use and trade practices laws. From 1973 through 1989, he served as Attorney for Corporate Government Affairs for Sears, Roebuck and Co., helping organize and carry out Sears' 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 2008 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 11. EXECUTIVE COMPENSATION.**

The information required hereunder is incorporated herein by reference to our Proxy Statement to be filed within 120 days of September 30, 2007 and delivered to stockholders in connection with our Annual Meeting of Stockholders to be held on March 13, 2008.

### **ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.**

The information required hereunder is incorporated herein by reference to our Proxy Statement to be filed within 120 days of September 30, 2007, and delivered to stockholders in connection with our Annual Meeting of Stockholders to be held on March 13, 2008.

### **ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

The information required hereunder is incorporated herein by reference to our Proxy Statement to be filed within 120 days of September 30, 2007, and delivered to stockholders in connection with our Annual Meeting of Stockholders to be held on March 13, 2008.

### **ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required hereunder is incorporated herein by reference to our Proxy Statement to be filed within 120 days of September 30, 2007, and delivered to stockholders in connection with our Annual Meeting of Stockholders to be held on March 13, 2008.

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**PART IV**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) The following documents are filed as part of this Annual Report on Form 10-K:

**(1) Financial Statements.**

See Index to Financial Statements and Schedule on page F-1.

**(2) Financial Statement Schedules.**

See Index to Financial Statements and Schedule on page F-1. All other schedules are omitted as the required information is not present or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the consolidated financial statements or notes thereto.

**(3) Exhibits.**

The following exhibits are filed (or incorporated by reference herein) as part of this Annual Report on Form 10-K:

<b>Exhibit Number</b>	<b>Document Description</b>
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	Form of Registration Rights Agreement dated January 24, 2006(4)
4.2	Form of Warrant to Purchase Common Stock issued January 24, 2006(4)
4.3	Form of Warrant to Purchase Common Stock issued May 29, 2007(14)
10.1**	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)(5)
10.2**	Copy of the Arrowhead Research Corporation 2004 Equity Incentive Plan(6)
10.3	Common Stock and Warrant Purchase Agreement, dated as of January 11, 2006, among Arrowhead, York, Knott and certain affiliates(4)
10.4**	Copy of Arrowhead Research Corporation 2004 Equity Incentive Plan, as amended February 23, 2006(7)
10.5	Series A Preferred Stock Purchase Agreement between Arrowhead Research and Calando Pharmaceuticals, Inc. dated March 31, 2006(8)
10.6	Agreement to Provide Additional Capital between Arrowhead Research and Calando Pharmaceuticals, Inc. dated March 31, 2006(8)
10.7	Common Stock Transfer Agreement among Arrowhead Research, Mark Davis, John Petrovich and John Rossi(8)
10.8	Series A Preferred Stock Purchase Agreement between Arrowhead Research Corporation and Nanopolaris, Inc. dated June 13, 2006(9)



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- 10.9 Agreement to Provide Additional Capital between Arrowhead Research Corporation and NanoPolaris, Inc. dated June 13, 2006(9)
- 10.10 Severance Agreement and General Release between Arrowhead Research Corporation and Leon Ekchian dated August 1, 2006(10)

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<b>Exhibit Number</b>	<b>Document Description</b>
10.11**	Executive Incentive Plan, adopted December 12, 2006(11)
10.12**	Directors Compensation Policy, as amended December 12, 2006(11)
10.13	Amended and Restated License Agreement between Insert Therapeutics, Inc. and Calando Pharmaceuticals, Inc. dated July 1, 2005 (Portions omitted pursuant to request for confidential treatment.)(11)
10.14	Agreement and Plan of Merger dated as of March 21, 2007 by and among Unidym, Inc., Unidym Acquisition, LLC, Carbon Nanotechnologies, Inc., and William A. McMinn as the Stockholder Representative(12)
10.15	Stock Purchase Agreement dated as of April 20, 2007, by and among Arrowhead and the selling stockholders of Carbon Nanotechnologies, Inc.(13)
10.16	Registration Rights Agreement dated as of April 20, 2007, by and among Arrowhead and the purchasers of Arrowhead's Common Stock listed on Exhibit A thereto(13)
10.17	Lock-up and Standstill Agreement dated as of April 20, 2007, by and among Arrowhead and the securityholders of Arrowhead listed on the signature pages thereto(13)
10.18	Registration Rights Agreement dated May 16, 2007, by and among Arrowhead and the purchasers of Arrowhead's Common Stock listed on Exhibit A thereto(14)
10.19	Form of Subscription Agreement by and between Arrowhead and each of the purchasers of Arrowhead's Common Stock in the private placement transaction completed in May 2007(14)
10.20	Severance Agreement dated May 24, 2007 by and between Arrowhead and R. Bruce Stewart(15)
10.21	Severance Agreement dated May 24, 2007 by and between Arrowhead and Joseph T. Kingsley(15)
10.22**	Employment Offer Letter Agreement dated June 5, 2007 by and between Unidym, Inc. and Arthur L. Swift(16)
21.1	List of Subsidiaries*
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
32.1	Certification by Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*
32.2	Certification by Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*

\* Filed herewith.

\*\* Indicates compensation plan, contract or arrangement.

(1) Incorporated by reference from the Schedule 14C filed by registrant on December 22, 2000.

(2) Incorporated by reference from the Schedule 14C filed by registrant on December 22, 2003.

(3) Incorporated by reference from the 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 Current Report on Form 8-K, filed by registrant on January 18, 2006.

(5) Incorporated by reference from the Registration Statement on Form S-8, filed by registrant on October 29, 2004.

(6) Incorporated by reference from Annex A to the definitive Schedule 14C filed by registrant on December 16, 2004.

(7) Incorporated by reference from the Current Report on Form 8-K filed by registrant on February 28, 2006.

(8) Incorporated by reference from the Current Report on Form 8-K filed by registrant on April 6, 2006.

(9) Incorporated by reference from the Current Report on Form 8-K filed by the registrant on June 16, 2006.

(10) Incorporated by reference from the Quarterly Report on Form 10-Q filed by the registrant on August 9, 2006.

(11) Incorporated by reference from the Annual Report on Form 10-K filed by the registrant on December 14, 2006.

(12) Incorporated by reference from the Current Report on Form 8-K filed by the registrant on March 26, 2007.

(13) Incorporated by reference from the Current Report on Form 8-K filed by the registrant on April 25, 2007.

(14) Incorporated by reference from the Current Report on Form 8-K (Items 3.02 and 9.01), filed by the registrant on May 30, 2007.

(15) Incorporated by reference from the Current Report on Form 8-K (Items 5.02 and 9.01), filed by the registrant on May 30, 2007.

(16) Incorporated by reference from the Current Report on Form 8-K, filed by the registrant on June 18, 2007.

**Table of Contents****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-K to be signed on its behalf by the undersigned, thereunto duly authorized, on this 14th day of December 2007.

**ARROWHEAD RESEARCH CORPORATION**

By: /s/ CHRISTOPHER ANZALONE  
**Christopher Anzalone**

**Chief Executive Officer**

**POWER OF ATTORNEY**

KNOW ALL THESE PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Christopher Anzalone 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 Annual Report on Form 10-K, 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-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

<b>Signature</b>	<b>Title</b>	<b>Date</b>
/s/ CHRISTOPHER ANZALONE <b>Christopher Anzalone</b>	Chief Executive Officer, President and Director (Principal Executive Officer)	December 14, 2007
/s/ JOSEPH T. KINGSLEY <b>Joseph T. Kingsley</b>	Chief Financial Officer (Principal Financial and Accounting Officer)	December 14, 2007
/s/ EDWARD W. FRYKMAN <b>Edward W. Frykman</b>	Director	December 14, 2007
/s/ LEROY T. RAHN <b>LeRoy T. Rahn</b>	Director	December 14, 2007
/s/ CHARLES P. MCKENNEY <b>Charles P. McKenney</b>	Director	December 14, 2007
/s/ R. BRUCE STEWART <b>R. Bruce Stewart</b>	Executive Chairman & Director	December 14, 2007

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**INDEX TO FINANCIAL STATEMENTS AND SCHEDULE**

*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,

<u>Report of Independent Registered Public Accounting Firm</u>	F-2
<u>Consolidated Balance Sheets of Arrowhead Research Corporation and Subsidiaries, September 30, 2007 and 2006</u>	F-3
<u>Consolidated Statements of Operations of Arrowhead Research Corporation and Subsidiaries for the years ended September 30, 2007, 2006, and 2005 and the period from May 7, 2003 (inception) through September 30, 2007</u>	F-4
<u>Consolidated Statement of Stockholders' Equity of Arrowhead Research Corporation and Subsidiaries for the period from May 7, 2003 (inception) through September 30, 2007</u>	F-5
<u>Consolidated Statement of Cash Flows of Arrowhead Research Corporation and Subsidiaries for the years ended September 30, 2007, 2006, and 2005 and the period from May 7, 2003 (inception) through September 30, 2007</u>	F-6
<u>Notes to Consolidated Financial Statements of Arrowhead Research Corporation and Subsidiaries</u>	F-8

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of Arrowhead Research Corporation

We have audited the accompanying consolidated balance sheets of Arrowhead Research Corporation (a Delaware corporation) and Subsidiaries as of September 30, 2007 and 2006 and the related consolidated statements of operations, stockholders' equity and cash flows for the years ended September 30, 2007, 2006 and 2005 and for the period from May 7, 2003 (inception) through September 30, 2007. 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, 2007 and 2006, and the consolidated results of their operations and their cash flows for the years ended September 30, 2007, 2006 and 2005, and for the period from May 7, 2003 (inception) through September 30, 2007 in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Arrowhead Research Corporation's internal control over financial reporting as of September 30, 2007, based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated December 7, 2007 expressed an unqualified opinion.

Rose, Snyder & Jacobs

A Corporation of Certified Public Accountants

Encino, California

December 7, 2007

**Table of Contents****Arrowhead Research Corporation and Subsidiaries****(A Development Stage Company)****Consolidated Balance Sheets**

	September 30,	
	2007	2006
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 24,120,097	\$ 28,020,304
Trade receivable, net of allowance for doubtful account of \$45,659	273,864	
Grant receivable, net of allowance for doubtful account of \$0		3,697
Other receivables	2,200	70,517
Prepaid sponsored research, <i>Note 7.</i>	221,053	358,020
Other prepaid research	278,558	7,600
Other prepaid expenses	409,656	315,653
<b>TOTAL CURRENT ASSETS</b>	<b>25,305,428</b>	<b>28,775,791</b>
<b>PROPERTY AND EQUIPMENT</b>		
Computers, office equipment and furniture	614,213	544,823
Research equipment	1,977,882	1,375,595
Software	107,128	68,969
Leasehold improvement	416,234	369,699
	3,115,457	2,359,086
Less: Accumulated depreciation and amortization	(1,675,998)	(1,088,105)
<b>NET PROPERTY AND EQUIPMENT</b>	<b>1,439,459</b>	<b>1,270,981</b>
<b>INTANGIBLE AND OTHER ASSETS</b>		
Rent deposit	169,552	161,469
Patents, <i>Note 1.</i>	2,938,513	3,354,487
Goodwill		963,150
<b>TOTAL OTHER ASSETS</b>	<b>3,108,065</b>	<b>4,479,106</b>
<b>TOTAL ASSETS</b>	<b>\$ 29,852,952</b>	<b>\$ 34,525,878</b>
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable, <i>Note 1.</i>	\$ 1,349,105	\$ 846,580
Accrued expenses	545,703	677,722
Payroll liabilities	407,997	233,932
Accrued severance	495,000	
Preferred stock liability		1,162,000
Deferred revenue	98,570	
<b>TOTAL CURRENT LIABILITIES</b>	<b>2,896,375</b>	<b>2,920,234</b>
<b>LONG-TERM LIABILITIES</b>		
Accrued severance, <i>Note 7.</i>	500,000	
Minority interests	152,609	934,438

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Commitment and contingencies, *Note 7*.

STOCKHOLDERS EQUITY, *Note 5*.

Common stock	38,622	34,156
Preferred stock		
Additional paid-in capital	84,672,783	59,113,369
Accumulated deficit during the development stage	(58,407,437)	(28,476,319)
<b>TOTAL STOCKHOLDERS EQUITY</b>	<b>26,303,968</b>	<b>30,671,206</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS EQUITY</b>	<b>\$ 29,852,952</b>	<b>\$ 34,525,878</b>

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

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

	2007	September 30, 2006	2005	May 7, 2003 (Inception) to September 30, 2007
<b>REVENUE, Note 1</b>	<b>\$ 1,208,022</b>	<b>\$ 595,458</b>	<b>\$ 590,683</b>	<b>\$ 2,590,469</b>
COST OF GOODS SOLD	724,088			724,088
<b>GROSS PROFIT ON SALES</b>	<b>483,934</b>	<b>595,458</b>	<b>590,683</b>	<b>1,866,381</b>
<b>OPERATING EXPENSES</b>				
Salaries	10,048,302	6,511,641	3,239,398	20,380,143
Consulting	1,798,143	749,720	447,111	3,644,304
General and administrative expenses	5,240,150	4,389,232	2,561,295	13,145,393
Research and development	20,930,548	9,036,999	3,753,975	34,518,251
Patent amortization	415,963	391,248	181,752	988,963
<b>TOTAL OPERATING EXPENSES</b>	<b>38,433,106</b>	<b>21,078,840</b>	<b>10,183,531</b>	<b>72,677,054</b>
<b>OPERATING LOSS</b>	<b>(37,949,172)</b>	<b>(20,483,382)</b>	<b>(9,592,848)</b>	<b>(70,810,673)</b>
<b>OTHER INCOME (EXPENSES)</b>				
Gain on sale of stock in subsidiary			2,292,800	2,292,800
Realized and unrealized gain (loss) in marketable securities		315,616	78,761	382,264
Interest income	1,264,693	852,967	151,052	2,300,053
Other income	329		3,308	3,637
<b>TOTAL OTHER INCOME (EXPENSES)</b>	<b>1,265,022</b>	<b>1,168,583</b>	<b>2,525,921</b>	<b>4,978,754</b>
<b>LOSS BEFORE MINORITY INTERESTS</b>	<b>(36,684,150)</b>	<b>(19,314,799)</b>	<b>(7,066,927)</b>	<b>(65,831,919)</b>
Minority interests	6,753,032	317,590	1,520,039	8,842,384
<b>LOSS FROM CONTINUING OPERATIONS</b>	<b>(29,931,118)</b>	<b>(18,997,209)</b>	<b>(5,546,888)</b>	<b>(56,989,535)</b>
Loss from operation of discontinued Nanotechnica, Inc.			(1,234,233)	(1,342,505)
Loss on disposal of Nanotechnica, Inc. (July 2005 - September 2005)			(73,797)	(73,797)
Provision for income taxes				(1,600)
<b>NET INCOME (LOSS)</b>	<b>\$ (29,931,118)</b>	<b>\$ (18,997,209)</b>	<b>\$ (6,854,918)</b>	<b>\$ (58,407,437)</b>
Income (loss) from continuing operations per share, diluted and undiluted	\$ (0.83)	\$ (0.59)	\$ (0.30)	
Loss from discontinued operations	\$	\$	\$ (0.07)	
Net income (loss) per share, diluted and undiluted	\$ (0.83)	\$ (0.59)	\$ (0.37)	
Weighted average shares outstanding, diluted and undiluted	35,867,091	31,953,806	18,725,263	

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





**Table of Contents****Arrowhead Research Corporation and Subsidiaries****(A Development Stage Company)****Consolidated Statement of Stockholders Equity****from inception to September 30, 2007**

	Common Stock		Additional Paid-in-Capital	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>(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
Stock-based compensation			175,653		175,653
Net loss for the year ended September 30 ,2004				(2,528,954)	(2,528,954)
<b>Balance at September 30, 2004</b>	<b>13,631,546</b>	<b>13,645</b>	<b>12,059,997</b>	<b>(2,624,192)</b>	<b>9,449,450</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
Stock-based compensation			508,513		508,513
Change in percentage of ownership in subsidiary			230,087		230,087
Net loss for the year ended September 30 ,2005				(6,854,918)	(6,854,918)
<b>Balance at September 30, 2005</b>	<b>27,984,194</b>	<b>27,997</b>	<b>35,578,580</b>	<b>(9,479,110)</b>	<b>26,127,467</b>
Exercise of stock options	115,794	116	341,421		341,537
Common stock issued @ \$4.88 per share	204,854	205	999,795		1,000,000
Common stock issued @ \$3.84 per share to Dr. M. Moskovits as payment for application of patents	15,000	15	57,585		57,600
Common stock issued @ \$3.50 per share	5,590,000	5,590	19,539,410		19,545,000
Common stock issued to Caltech as payment for legal fees	25,364	25	149,975		150,000
Purchase of Calando Pharmaceuticals, Inc. @ \$5.17/share	208,382	208	1,077,125		1,077,333
Stock-based compensation			1,270,339		1,270,339
Accelerated stock options			99,139		99,139
Net loss for the year ended September 30, 2006				(18,997,209)	(18,997,209)

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<b>Balance at September 30, 2006</b>	<b>34,143,588</b>	<b>34,156</b>	<b>59,113,369</b>	<b>(28,476,319)</b>	<b>30,671,206</b>
Exercise of stock options	186,164	186	434,541		434,727
Common stock issued, net	2,849,446	2,849	15,149,366		15,152,215
Arrowhead's increase in proportionate share of Insert Therapeutics equity			2,401,394		2,401,394
Common stock issued for purchase of Carbon Nanotechnologies, Inc.	1,431,222	1,431	5,398,569		5,400,000
Stock-based compensation			2,175,544		2,175,544
Net loss for the year ended September 30, 2007				(29,931,118)	(29,931,118)
<b>Balance at September 30, 2007</b>	<b>38,610,420</b>	<b>\$ 38,622</b>	<b>\$ 84,672,783</b>	<b>\$ (58,407,437)</b>	<b>\$ 26,303,968</b>

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

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

	September 30,			Period from May 7, 2003 (Date of inception) to September 30, 2007
	2007	2006	2005	
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>				
Net Loss	\$ (29,931,118)	\$ (18,997,209)	\$ (6,854,918)	\$ (58,407,437)
Realized and unrealized (gain) loss on investment		(315,615)	(78,761)	(382,263)
Stock issued as gift to Caltech				162,750
Stock issued for professional services		150,000	50,000	200,000
Stock issued for in-process research and development	9,597,005	1,077,333		10,674,338
Stock-based compensation	2,175,544	1,369,478	508,513	4,229,188
Depreciation and amortization	1,003,868	886,956	644,006	2,609,660
Gain on sale of stock in subsidiary			(2,292,800)	(2,292,800)
Minority interests	(6,753,032)	(317,590)	(1,520,039)	(8,842,384)
Decrease/increase in:				
Receivables	(201,850)	(40,766)	18,387	(276,064)
Prepaid research expense	(133,991)	(273,954)	272,711	(499,612)
Other prepaid expenses	(94,002)	(170,668)	(104,677)	(409,655)
Deposits	(8,083)	(51,090)	(85,761)	(159,594)
Accounts payable	504,919	370,365	(68,795)	1,147,337
Accrued expenses	(132,019)	413,181	191,216	512,600
Deferred revenue	98,570	(106,250)	106,250	98,570
Preferred stock liability	(1,162,000)	1,162,000		
Other liabilities	1,169,065	52,602	115,351	1,405,686
<b>NET CASH PROVIDED (USED) IN OPERATING ACTIVITIES</b>	<b>(23,867,124)</b>	<b>(14,791,227)</b>	<b>(9,099,317)</b>	<b>(50,229,680)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>				
Purchase of marketable securities US Treasury Bills		(18,575,915)		(18,575,915)
Purchase of property and equipment	(756,371)	(729,450)	(672,761)	(2,826,162)
Cash paid for interest in Nanotechnica				(4,000,000)
Cash paid for interest in Aonex		(1,000,000)	(2,000,000)	(5,000,000)
Cash paid for interest in Insert	(5,150,000)		(4,000,000)	(10,150,000)
Cash paid for interest in Calando	(1,000,000)	(5,000,000)	(2,000,000)	(8,000,000)
Cash paid for interest in Unidym	(4,000,000)	(3,000,000)	(1,000)	(7,001,000)
Cash paid for interest in Tego	(101,000)			(101,000)
Cash obtained from interest in Nanotechnica				4,000,000
Cash obtained from interest in Aonex		1,000,000	2,000,000	5,001,250
Cash obtained from interest in Insert	5,150,000		4,075,000	10,529,594
Cash obtained from interest in Calando	1,000,000	5,000,000	2,000,000	8,000,000
Cash obtained from interest in Unidym	4,000,000	3,000,000	1,000	7,001,000
Cash obtained from interest in Tego	101,000			101,000
Proceeds from sale of marketable securities US Treasury Bills		18,888,265		18,888,265
Proceeds from sale of stock in subsidiary	5,136,346		2,424,924	7,561,270
Proceeds from sale of investments		80,145	489,768	569,913
Payment for patents		(205,067)	(98,373)	(303,440)
Restricted cash			50,773	50,773
<b>NET CASH USED IN INVESTING ACTIVITIES</b>	<b>4,379,975</b>	<b>(542,022)</b>	<b>2,269,331</b>	<b>5,745,548</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>				
Proceeds from issuance of common stock and warrants, net	15,586,942	20,886,537	20,744,335	68,604,229
<b>NET CASH PROVIDED BY FINANCING ACTIVITIES</b>	<b>15,586,942</b>	<b>20,886,537</b>	<b>20,744,335</b>	<b>68,604,229</b>

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NET INCREASE (DECREASE) IN CASH	(3,900,207)	5,553,288	13,914,349	24,120,097
CASH AT BEGINNING OF PERIOD	28,020,304	22,467,016	8,552,667	
CASH AT END OF PERIOD	\$ 24,120,097	\$ 28,020,304	\$ 22,467,016	\$ 24,120,097
Supplementary disclosures:				
Interest paid	\$	\$	\$	\$
Income tax paid	\$ 4,800	\$ 4,000	\$ 2,400	\$ 7,200

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**Arrowhead Research Corporation and Subsidiaries**

**(A Development Stage Company)**

**Consolidated Statements of Cash Flows (Continued)**

**SUPPLEMENT NON CASH TRANSACTIONS**

On March 23, 2005, Arrowhead purchased 7,375,000 shares of Insert Therapeutics, 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.

On March 31, 2006, Arrowhead purchased 964,000 shares of Calando Pharmaceuticals, Inc. common stock from minority stockholders of Calando for \$1,928,000 consisting of 208,382 newly issued shares of Arrowhead Common Stock valued at \$1,077,333 plus \$850,667 in cash. The 208,382 shares of Arrowhead common stock were valued based on the average closing price of Arrowhead's Common Stock on NASDAQ during the last ten days prior to the date of the closing.

On April 20, 2007, Arrowhead purchased the Series E Preferred Stock of Carbon Nanotechnologies, Inc. in exchange for 1,431,222 shares of Arrowhead Common Stock with an estimated fair market value of \$5,400,000.

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

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**Arrowhead Research Corporation**

**(A Development Stage Company)**

**Notes to Consolidated Financial Statements**

**September 30, 2007**

**NOTE 1. ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES**

*Nature of Business*

Arrowhead Research Corporation ( Company ) is a development stage nanotechnology company commercializing new technologies in the areas of life sciences, electronics, and energy. Arrowhead's mission is to build value through the identification, development and commercialization of nanotechnology-related products and applications. The Company works closely with universities to source early stage deals and to generate rights to intellectual property covering promising new nanotechnologies. Arrowhead takes a portfolio approach by operating multiple subsidiaries (each a Subsidiary, and collectively the Subsidiaries ) which allows the pursuit of multiple opportunities and diversifies risk. Arrowhead operates five majority-owned Subsidiaries commercializing nanotech products and applications, and has funded a number of prototype development efforts in leading university labs in exchange for the exclusive right to license the technology developed in such labs.

Arrowhead owns majority interest in each of its Subsidiaries, securing substantial participation in any success. Each Subsidiary is staffed with its own technical and business team that focuses on its specific technology and markets while Arrowhead provides financial, strategic and administrative resources. The Company's five majority-owned Subsidiaries are commercializing a variety of nanotech products and applications, including anti-cancer drugs, RNAi therapeutics, carbon-based electronics and compound semiconductor materials. In the near term, Arrowhead expects to add to its portfolio through selective acquisition and formation of new companies.

In exchange for the exclusive right to license the resultant technology developed in sponsored laboratories, Arrowhead has worked with some of the most highly-regarded academic institutions in the country, including the California Institute of Technology (Caltech), Stanford University, Duke University and the University of Florida, in critical areas such as stem cell research, carbon electronics and molecular diagnostics. By funding university research, Arrowhead has the ability to evaluate the probability of technical success at low research cost and, if warranted, continue cost effective development at the university by leveraging the already existing resources available to scientists at universities, such as laboratories and equipment, as well as an atmosphere that encourages the exchange of ideas. Moreover, the cultivation of relationships in the academic community provides an additional window into other promising technologies.

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

Until the recent acquisition and merger of Carbon Nanotechnologies, Inc. ( CNI ) into Arrowhead's majority owned subsidiary Unidym, the Company had no revenue from product sales since its inception. With the CNI acquisition in April 2007, Unidym now manufactures and sells a variety of carbon nanotubes for commercial, research applications. Unidym is engaged in a number of government grants generating additional revenues and cost reimbursements. Prior to the acquisition of CNI, in prior years, Arrowhead 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. Certain prior year amounts have been reclassified to conform with current year presentation.

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**Arrowhead Research Corporation**

**(A Development Stage Company)**

**Notes to Consolidated Financial Statements (Continued)**

**September 30, 2007**

**Principles of Consolidation** The consolidated financial statements of the Company include the accounts of Arrowhead and its subsidiaries Insert Therapeutics, Inc. ( Insert ), Calando Pharmaceuticals, Inc. ( Calando ), Unidym, Inc. ( Unidym , formerly known as NanoPolaris, Inc.), Tego BioSciences Corporation ( Tego ) and Aonex Technologies, Inc. ( Aonex ). Nanotechnica, Inc. ( Nanotechnica ) is included in the results as Loss from Discontinued Operations. All significant intercompany accounts and transactions are eliminated in consolidation, and minority interests are accounted for in the consolidated statements 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 value of the stock of its subsidiaries, assumptions to calculate value of stock options, the allowance for doubtful accounts, deferred tax asset valuation allowance, patents, goodwill, minority-interest Common Stock 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 liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

**Credit Risk** The Company extends credit to its customers in the normal course of business and generally does not require collateral or other security. The Company performs ongoing credit evaluations of its customers' financial condition and historically has not incurred significant credit losses.

**Concentration of Credit Risk** The Company maintains checking accounts for Arrowhead and separate accounts for each subsidiary at either of two financial institutions. These accounts are insured by the Federal Deposit Insurance Corporation (FDIC), up to \$100,000. The Company has four wealth management accounts at the same financial institution which invests in higher yield money market accounts and in government securities. At September 30, 2007, the Company had uninsured cash deposits totaling \$23,854,539. 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.

**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 initial term of the leases.

**Intellectual Property** At September 30, 2007, intellectual property consisted of patents and patent applications licensed or purchased in the gross amount of \$570,983. A portion of the Company's investment in Insert has been allocated to the patents held by Insert. The Insert patents, in the gross amount of \$3,301,190, are being amortized over the life of these patents. The accumulated amortization of patents totaled \$933,660 at September 30, 2007. Patents are being amortized over 3 years to 20 years unless a patent is determined to have no foreseeable commercial value and is written down to \$1.00. The weighted average original amortization period is 13 years. The weighted average remaining amortization period is 11 years.

The acquisition of CNI resulted in \$9,597,005 being expensed as purchased in-process research and development and is more fully described in note 4 below.

**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





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**Arrowhead Research Corporation**

**(A Development Stage Company)**

**Notes to Consolidated Financial Statements (Continued)**

**September 30, 2007**

goodwill on an annual basis and, whenever events and changes in circumstances indicate that the carrying amount may not be recoverable, an adjustment is made. Goodwill at September 30, 2006, consisted of \$963,150 related to the original formation and subsequent capital investments in Calando and recordation of minority interest. Arrowhead has eliminated the balance of Calando goodwill and its associated minority interest in 2007.

**Revenue Recognition** Revenue from product sales is recognized when the related goods are shipped and all significant obligations of the Company have been satisfied. The Company recognizes license fee revenue on a straight-line basis over the term of the license. Development fees, milestone fees, collaboration fees and grant revenues are recognized upon the completion and payment of services or achievement of the mutually agreed milestones.

The Company generated revenues of \$1,208,022 for the year ended September 30, 2007, compared to \$595,458 and \$590,683 for September 30, 2006 and 2005. The revenue for fiscal 2007 consists of \$874,380 of funded research for the development of carbon nanotube applications and \$326,247 from the sale of carbon nanotubes to third parties (as a result of the merger with CNI) and \$7,394 in residual funded research. The revenue in fiscal 2006 and fiscal 2005 was for funded research and for a license and development payments paid to Calando by a third party.

**Cost of Goods Sold** The Company includes direct materials, production labor and direct plant production cost (excluding depreciation) in cost of goods sold.

**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 are 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 and warrants of the Company.

**Recently Issued Accounting Standards** Management does not believe that any recently issued, but not yet effective, accounting standards, if currently adopted, would have a material effect on the accompanying financial statements.

*New Accounting Standards*

In June 2006, the Financial Accounting Standards Board (FASB) issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes*, (FIN 48). This Interpretation clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109, *Accounting for Income Taxes*. This Interpretation prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This Interpretation also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. FIN 48 is effective for fiscal years beginning after December 15, 2006. The Company does not expect the adoption of FIN 48 to have a material impact on its financial statements.

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**Arrowhead Research Corporation**

**(A Development Stage Company)**

**Notes to Consolidated Financial Statements (Continued)**

**September 30, 2007**

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* (SFAS 157), which defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements. This statement is effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. Early adoption is encouraged, provided that the Company has not yet issued financial statements for that fiscal year, including any financial statements for an interim period within that fiscal year. The Company will implement the new standard effective October 1, 2008. The Company is currently evaluating the impact SFAS 157 may have on its financial statements and disclosures.

In September 2006, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 108, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements* (SAB 108). SAB 108 provides guidance on the consideration of the effects of prior year misstatements in quantifying current year misstatements for the purpose of a materiality assessment. SAB 108 establishes an approach that requires quantification of financial statement errors based on the effects of the error on each of the Company's financial statements and the related financial statement disclosures. SAB 108 is effective for the Company as of the end of fiscal 2007, allowing a one-time transitional cumulative effect adjustment to retained earnings as of October 1, 2006, for errors that were not previously deemed material, but are material under the guidance in SAB 108. SAB 108 has not had a material impact on the Company's consolidated financial statements.

In February 2007, the FASB issued FASB Statement No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities Including an Amendment of FASB Statement No. 115* (SFAS 159). This Statement provides companies with an option to measure, at specified election dates, many financial instruments and certain other items at fair value that are not currently measured at fair value. A company that adopts SFAS 159 will report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. SFAS 159 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. SFAS 159 is effective for fiscal years beginning after November 15, 2007. The Company will implement the new standard effective October 1, 2008. The Company is currently evaluating the impact SFAS 159 may have on its financial statements and disclosures.

*Liquidity*

As of September 30, 2007, the Company had \$24.1 million in cash and cash equivalents compared to \$28.0 million in cash and cash equivalents and marketable securities at September 30, 2006. The Company's investment objectives are primarily to preserve capital and liquidity and secondarily to obtain investment income. The Company invests excess cash in certificates of deposit, U.S. government obligations and high grade commercial paper.

The Company's operating activities have required significant amounts of cash. This trend will continue through fiscal 2008 as the Company's Subsidiaries continue to develop and refine their products and technology. During this period the Company does not expect to generate significant amounts of revenue. It is projected that the Company and its Subsidiaries will continue to selectively add staff, property, and equipment during fiscal 2008. In addition, the Company expects to continue to invest in new sponsored research projects and new business opportunities.

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**Arrowhead Research Corporation**

**(A Development Stage Company)**

**Notes to Consolidated Financial Statements (Continued)**

**September 30, 2007**

The Company believes that the cash on hand at September 30, 2007, is sufficient to meet all existing obligations and fund existing operations in fiscal 2008. In addition, on December 4, 2007, Unidym, Inc. announced the completion of a private financing with qualified investors, pursuant to which Unidym issued and sold an aggregate of 5,625,889 shares of its Series C Preferred Stock (the Shares) for \$1.80 per share and aggregate net cash proceeds of approximately \$9.8 million. Arrowhead participated in this financing and invested an additional \$3.0 million in Unidym. In the future, the Company may seek additional funding through public or private financing, through collaborations and/or through private and U.S. government grants.

**NOTE 2. BASIS OF CONSOLIDATION**

The consolidated financial statements for the years ended September 30, 2007 and 2006 respectively, include the accounts of Arrowhead and its Subsidiaries, Insert, Calando, Unidym, Tego and Aonex. 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.

**NOTE 3. ALLOWANCE FOR DOUBTFUL ACCOUNTS**

The Company accrues an allowance for doubtful accounts based on estimates of uncollectible revenues by analyzing historical collections, accounts receivable aging and other factors. Accounts receivable are written off when all collection attempts have failed. The allowance for doubtful accounts applicable to Unidym as of September 30, 2007, is \$45,659.

**NOTE 4. INVESTMENT IN SUBSIDIARIES**

*Insert Therapeutics, Inc.*

On June 4, 2004, Arrowhead purchased 24,496,553 shares of Series B Preferred Stock, representing a 62% controlling interest of Insert Therapeutics, Inc., a company based in Pasadena, California, for \$1,000,000. At acquisition, Arrowhead also agreed to pay an additional \$4,000,000 in consideration contingent upon the attainment of certain milestones in the development of Insert's business. Since June 4, 2004, Arrowhead has paid the entire additional \$4,000,000 in consideration. The commitment to pay additional consideration was disclosed in filings made with the SEC. Arrowhead accounted for this transaction under SFAS 141, Business Combinations, as described in greater detail below.

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 additional investment increased Arrowhead's net ownership of Insert by approximately 7%, from approximately 62% to approximately 69% of Insert's outstanding voting securities. The Arrowhead Common Stock issued in the transaction was valued at \$2,000,000 based on the closing market price of Arrowhead Common Stock on NASDAQ on the date of the purchase. The additional consideration paid for the 7,375,000 common shares was allocated among the assets of Insert, primarily patents, as described below.

On March 29, 2005, Arrowhead exchanged 4,000,000 shares of the Series B Preferred Stock of Insert for 4,000,000 shares of Series C Preferred Stock of Insert. The Series C Preferred Stock has a liquidation preference senior to the Series B Preferred Stock.

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**Arrowhead Research Corporation**

**(A Development Stage Company)**

**Notes to Consolidated Financial Statements (Continued)**

**September 30, 2007**

On March 31, 2005, Arrowhead sold 2,640,000 shares of its Insert Series C Preferred Stock to qualified investors for \$1.00 per share. Net proceeds of the sale were \$2,424,924. Arrowhead recognized a gain of \$2,292,800 on the sale.

As of September 30, 2006, Insert had received \$1,162,000 in advance of completing the subscription agreements as part of the \$10.3 million private placement. The \$1,162,000 was recorded on the balance sheet as Preferred Stock Liability as of September 30, 2006.

In October 2006, Insert completed a \$10.3 million private placement to qualified investors, including a \$5.15 million follow-on investment by Arrowhead. The private placement offered 10,341,681 units at \$1.00 per unit, each unit consisting of a share of Series C-2 Preferred Stock and 40% warrant coverage to purchase shares of Series D Preferred Stock at an exercise price of \$1.25 per share. The warrants are callable by Insert after July 1, 2007. Net proceeds for the sales were approximately \$10.0 million. Prior to the private placement, Arrowhead owned 68.3% of the outstanding voting stock prior to the transaction and 64.5% immediately thereafter.

The \$10.0 million raised by Insert in October 2006, resulted in a change in Arrowhead's proportionate share of Insert's equity. In accordance with Staff Accounting Bulletins Topic 5.H, Arrowhead's increase in its proportionate share of Insert's equity was recorded in consolidation as an equity transaction, increasing additional paid-in capital by \$2,401,394. On October 27, 2006, Insert repaid Arrowhead \$2,500,000 of working-capital loans and \$42,501 of interest incurred while the loans were outstanding.

As of September 30, 2007, Arrowhead owns 64.2% of the outstanding voting securities of Insert as of September 30, 2007 or 57.0% of the outstanding securities on a fully diluted basis. Since its initial investment of \$1,000,000 on June 4, 2004, Arrowhead has provided \$9,150,000 of additional capital to Insert.

Developing new drugs for market is a long process expected to last years. At the time of Arrowhead's initial purchase of Insert securities in June 2004, Insert was in the process of developing unique intravenous drug delivery technologies for cancer therapeutics. The delivery system enables Insert to develop its own pharmaceutical products and provide customized drug delivery solutions for others. In addition to intravenous use, the delivery system may also be effective for use in tablets, topical ointments and inhalants. At the time of purchase, the primary asset of Insert were 14 patents and/or patent applications filed with the United States Patent and Trademark Office, as well as foreign counterparts in Europe, Japan and other countries. Insert's initial patent was issued in January 2003 for a linear cyclodextrin copolymer drug delivery technology. Two additional US patents have since been issued covering the compositions of matter, methods of use, manufacturing and purification processes and routes of delivery. The initial payment of \$1,000,000, the additional contingent consideration of \$4,000,000 and the purchase of shares from the minority shareholders for \$2,000,000 in March 2005, have been accounted for under SFAS 141. In accordance with paragraphs 26 and 27 of SFAS 141, the \$4,000,000 of contingent consideration was accounted for as an additional cost of the acquired entity. The purchase price was allocated to the assets acquired and liabilities assumed based on their estimated fair values. The primary assets acquired are patents, which have alternative use.

*Calando Pharmaceuticals, Inc.*

On February 22, 2005, Arrowhead purchased 4,000,000 shares of common stock in a newly-formed entity, Calando, for \$1,000,000. A voting agreement between Arrowhead and certain shareholders in Calando gives Arrowhead the right to designate a majority of Calando's Board of Directors. Calando and Insert have entered

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**Arrowhead Research Corporation**

**(A Development Stage Company)**

**Notes to Consolidated Financial Statements (Continued)**

**September 30, 2007**

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. Arrowhead has provided \$7,000,000 in additional capital to Calando, including \$3,000,000 paid for Series A Preferred Stock of Calando.

On March 31, 2006, Arrowhead purchased 5,000,000 newly issued shares of Calando's Series A Preferred Stock for \$3,000,000 from Calando and purchased 964,000 shares of common stock for \$2.00 per share from minority shareholders. The \$1,928,000 payment for the purchase of Calando common stock consisted of \$850,667 in cash and 208,382 shares of Arrowhead Common Stock with an estimated value of \$1,077,333 or \$5.17 per share based on the average closing price of Arrowhead's Common Stock during the last ten trading days immediately preceding the transaction closing.

On March 31, 2006, Arrowhead entered into an agreement with Calando to provide up to \$7,000,000 of additional capital to Calando subject to the attainment of certain milestones in its preclinical testing, clinical testing and related approval processes. Should Arrowhead elect not to make the additional capital contributions, the conversion ratio of Calando's Series A Preferred Stock to common stock would be adjusted to a conversion ratio from approximately three to one.

On August 14, 2006, Arrowhead purchased 240,000 shares of Calando common stock from a minority shareholder for an aggregate purchase price of \$480,000 or \$2.00 per share.

In October 2006, two of Calando's founders exercised warrants for Calando common stock reducing Arrowhead's combined direct and indirect ownership from 85.1% to approximately 69.8% of the outstanding voting securities of Calando or 63.9% of the outstanding securities on a fully diluted basis as of September 30, 2007.

*Unidym, Inc. (formerly NanoPolaris, Inc.)*

On April 4, 2005, Arrowhead founded NanoPolaris, Inc. as a wholly-owned subsidiary of Arrowhead. NanoPolaris was initially capitalized with \$1,000.

On June 13, 2006, NanoPolaris acquired from its founder substantially all of the net assets and the name of Unidym, a company that develops carbon nanotube-based electronics. The net assets acquired included Unidym's intellectual property, prototypes, and equipment, for a purchase price consisting of \$25,000, the assumption of \$75,000 of liabilities and shares of NanoPolaris common stock, with an estimated value of \$154,350. At the time of the purchase, the shares issued for the purchase represented 11.9% (10% on a fully diluted basis) of NanoPolaris outstanding voting stock. Concurrently with the purchase, Arrowhead agreed to provide up to \$4,000,000 in additional capital contributions over the next two years. In August 2006, NanoPolaris changed its name to Unidym, Inc.

On April 20, 2007, a wholly owned subsidiary of Unidym merged with Carbon Nanotechnologies, Inc. (CNI), a Texas-based company involved in the development, manufacture and marketing of carbon nanotubes (the Merger). The combined company operates under the Unidym name, has an expansive portfolio of carbon nanotube-related patents and is one of the largest manufacturers of carbon nanotubes in the world.

In connection with the Merger, Unidym agreed to accelerate the \$4,000,000 capital contribution and made payment on April 23, 2007. In aggregate consideration for the acceleration of the additional capital to Unidym and the transfer from Arrowhead to Unidym of rights and obligations under two sponsored research agreements, Unidym issued 448,000 shares of Unidym common stock to Arrowhead.

**Table of Contents****Arrowhead Research Corporation****(A Development Stage Company)****Notes to Consolidated Financial Statements (Continued)****September 30, 2007**

Prior to the merger, certain shareholders of CNI assumed all of CNI's outstanding debt, a total of \$5,400,000, in exchange for 1,080,000 shares of Series E Preferred Stock of CNI. On the date of the merger, Arrowhead purchased the Series E Preferred Stock in exchange for 1,431,222 shares of Arrowhead Common Stock with an estimated fair market value of \$5,400,000. The CNI Series E Preferred Stock was exchanged in the merger for 2,784,252 shares of newly authorized Unidym Series B Preferred Stock. The 2,889,000 shares of Unidym Series A Preferred Stock owned by Arrowhead were exchanged for 2,889,000 shares of Unidym Series B Preferred Stock.

In exchange for all the outstanding shares of CNI common stock, Unidym issued 5,000,000 shares of a newly authorized Unidym Series A Convertible Preferred Stock with an estimated total value of \$4,200,000. The Series A Preferred Stock is convertible into shares of Unidym 8,400,482 shares of common stock under certain conditions. Unidym also assumed CNI's 2007 Restricted Stock Unit Plan subject to which 1,104,010 shares and a warrant for 64,000 shares of Unidym common stock would be issuable on the later of March 31, 2008 or an initial public offering by Unidym.

Approximately twenty percent (20%) of the issued and outstanding capital stock of Unidym (calculated on an as-converted to Common Stock basis after giving effect to the Merger) was placed into a share escrow account to fund certain claims for indemnification for breaches of or inaccuracies in Unidym's and CNI's representations and warranties, covenants and agreements.

The consolidated statement of operations includes the results of the merged companies from April 21, 2007 through September 30, 2007. None of the three quantitative tests of significance of the CNI acquisition exceeded 20 percent, however, an 8-K was filed during the third quarter of 2007 for the acquisition.

Prior to the merger, Arrowhead owned 88.1% of the outstanding, voting securities of Unidym. As of September 30, 2007, Arrowhead's ownership of the outstanding, voting securities is 60.1%. If all options are awarded and exercised, all common stock subject to restricted stock units is issued and all preferred stock is converted, Arrowhead's interest would be 42.1%.

Below is a summary of the assets acquired, liabilities assumed and consideration transferred for the CNI acquisition:

Cash and cash equivalents	\$ 102,302
Accounts receivable	121,977
Other receivables	6,017
Other prepaid expenses	45,187
Property and equipment	65,880
Rent deposit and other assets	27,479
Intangible assets (to be expensed as Purchased in-process R & D)	9,597,005
<b>Total assets acquired</b>	<b>\$ 9,965,847</b>
<b>Liabilities assumed</b>	
Accounts payable	\$ 143,195
Accrued expenses	201,002
Deferred revenue	21,650
<b>Consideration transferred</b>	
Series B preferred share of Unidym (for CNI Series E preferred stock) tock)	5,400,000
Series A preferred share of Unidym (for CNI common stock)	4,200,000

\$ 9,965,847

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**Table of Contents****Arrowhead Research Corporation****(A Development Stage Company)****Notes to Consolidated Financial Statements (Continued)****September 30, 2007**

The acquisition has been accounted for using purchase price accounting in accordance with Financial Accounting Standard No. 141, *Business Combinations*.

The following summarizes unaudited pro forma year-to-date information, assuming the CNI acquisition had occurred on October 1, 2006:

	<b>Year ended</b>
	<b>September 30,</b>
	<b>2007</b>
	<b>(unaudited)</b>
Revenue	\$ 3,065,464
Net loss	\$ (31,106,353)
Loss per share	\$ (0.86)

*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 has provided \$3,000,000 of additional capital to Aonex.

After analyzing the existing competition and scale required for success in its core markets, Aonex has opted to seek an established company with which to partner in its future commercialization efforts. This change of strategy will likely limit the return that Arrowhead is able to achieve on its investment in Aonex.

As of September 30, 2007, Arrowhead had loans outstanding to Aonex totaling \$750,000. Each loan bears simple interest at 6%. Arrowhead owns 80.0% of the outstanding, voting securities of Aonex or 50% on a fully diluted basis as of September 30, 2007.

*Tego BioSciences Corporation*

On April 20, 2007, Tego BioSciences Corporation, a newly formed, wholly-owned subsidiary of Arrowhead, acquired the assets of C Sixty, Inc., a Texas-based company developing protective products based on the anti-oxidant properties of fullerenes for \$1,000. On July 3, 2007, Arrowhead capitalized Tego with a purchase of 5,000,000 shares of Tego Series A Preferred Stock for \$100,000. Currently, the Company is evaluating opportunities for Tego's technology. As of September 30, 2007, the Company has incurred less than \$65,000 of expenses related to Tego. Arrowhead owns 100% of the outstanding voting securities of Tego and 80% of the outstanding voting securities on a fully diluted basis.

Effective October 25, 2007, Dr. Russ Lebovitz was appointed Chief Executive Officer of Tego Biosciences to chart the strategic direction and guide the operations of the new nano-biotechnology company. Dr. Lebovitz served previously as CEO of C Sixty, Inc., the company that pioneered the technology now owned by Tego.

On October 25, 2007, Arrowhead provided \$2.4 million in additional capital to Tego to be used for developing and commercializing therapeutics and other products based on the antioxidant properties of modified fullerenes.



**Table of Contents****Arrowhead Research Corporation****(A Development Stage Company)****Notes to Consolidated Financial Statements (Continued)****September 30, 2007****NOTE 5. STOCKHOLDERS EQUITY**

The number of authorized shares of the Company at September 30, 2007, is 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.

At September 30, 2007, 38,610,420 shares of Common Stock were outstanding. At September 30, 2007, 1,615,875 shares and 4,843,667 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, 2007, options to purchase 1,615,875 shares were outstanding under the 2000 Stock Option Plan and options to purchase 3,379,048 shares were outstanding under the 2004 Equity Incentive Plan.

On January 24, 2006, the Company completed a private placement of 5,590,000 shares of restricted Common Stock at \$3.50 per share that generated \$19.6 million in total proceeds. The purchasers received warrants, exercisable after July 25, 2006, to purchase an additional 1,397,500 shares of restricted Common Stock at \$5.04 per share. The warrants may be called by the Company any time after July 25, 2006, if the closing price of the Company's Common Stock is \$6.50 or above for the previous 30 trading days.

On May 29, 2007, the Company completed a private placement of 2,849,466 shares of restricted Common Stock at \$5.78 per share that generated \$15.2 million in net proceeds. The purchasers received warrants to purchase an additional 712,362 shares of Common Stock at \$7.06 per share. The warrants may be called by the Company any time after May 29, 2008, if the closing price of the Company's Common Stock is \$8.47 or above for the previous 20 trading days.

The following table summarizes information about warrants outstanding at September 30, 2007:

Exercise prices	Number of Warrants	Weighted Average Remaining		Weighted Average Exercise Price
		Life in Years		
\$ 5.04	1,397,500	8.3		\$ 5.04
\$ 7.06	712,362	9.7		\$ 7.06

**NOTE 6. LEASES**

The Company leases the following facilities:

	Lab/Office	Monthly	Lease	
	Space	Rent	Commencement	Lease Term
Arrowhead				
Pasadena(1)	7,388 sq ft	\$ 17,362	March 1, 2006	62 Months
New York	130 sq ft	\$ 3,600	September 1, 2007	12 Months
Aonex	4,000 sq ft	\$ 7,611	July 1, 2004	48 Months
Calando	7,000 sq ft	\$ 12,944	June 1, 2006	18 Months
Insert	4,354 sq ft	\$ 12,173	June 1, 2006	36 Months
Unidym				

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Menlo Park, CA	7,000 sq ft	\$ 10,500	February 1, 2007	36 Months
Houston, TX	8,017 sq ft	\$ 13,362	February 1, 2007	11 Months

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- (1) Arrowhead leases corporate office space in Pasadena, which it occupied beginning March 1, 2006. The lease agreement provides Arrowhead with two months free rent which was recorded as a deferred liability and is being amortized over the life of the lease.

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**Table of Contents****Arrowhead Research Corporation****(A Development Stage Company)****Notes to Consolidated Financial Statements (Continued)****September 30, 2007**

(2) In September 2005, Arrowhead opened an office in New York City and has one employee working out of that office. In June 2007, the lease was renewed for 12 months effective September 1, 2007. The Company has no plans to own any real estate and expects all facility leases will be operating leases.

At September 30, 2007, the future minimum commitments remaining under leases are as follows:

	Facilities	Equipment
	Leases	Leases
<b>Twelve months ending September 30</b>		
2007	\$ 689,229	\$ 10,391
2008	\$ 491,256	\$ 6,302
2009	\$ 278,286	\$ 1,421
2010	\$ 129,290	\$ 0
2011 and thereafter	\$ 0	\$ 0

Facility and equipment rent expense for the years ended September 30, 2007, 2006 and 2005 was \$972,303, \$702,581 and \$455,241, respectively. From inception to date, rent expense has totaled \$2,216,687.

**NOTE 7. COMMITMENTS AND CONTINGENCIES SUBSIDIARIES AND SPONSORED RESEARCH****Subsidiaries**

As of September 30, 2007, Arrowhead held a majority of the following five operating Subsidiaries (the Subsidiaries):

Subsidiary	%	Ownership <sup>1</sup>	Technology/Product Focus
Insert Therapeutics, Inc. <i>acquired June 4, 2004</i>	64.2%		Nano-engineered drug delivery system in clinical trials with first anti-cancer compound
Calando Pharmaceuticals, Inc. <i>founded February 22, 2005</i>	69.8%		Nano-engineered RNAi therapeutics
Unidym, Inc. (formerly NanoPolaris) <i>founded April 4, 2005</i>	60.1%		Developing strategic opportunities for the commercialization of nanotube-based products
Tego, Biosciences Corporation <i>founded April 20, 2007</i>	100.0%		Development of protective products based on the anti-oxidant properties of buckminsterfullerenes

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Aonex Technologies, Inc.

80.0%

Semiconductor nanomaterials with initial emphasis on high efficiency solar cells

*founded April 20, 2004*

- (1) Each Subsidiary has an option plan to help motivate and retain employees. Insert has 4,335,473 outstanding warrants, primarily issued in connection with a financing event that closed in October 2006. As of September 30, 2007, assuming all options in each Subsidiary plan were awarded and exercised and all warrants were exercised, the Company would own approximately 57.0% of Insert, 63.9% of Calando, 42.1% of Unidym, 80% of Tego and 50.0% of Aonex.

Arrowhead entered into a separate funding agreement to provide future additional capital to Calando. The agreement gives Arrowhead the right to provide additional capital to Calando or to forfeit a specified portion of its interest in lieu of additional future funding.

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**Table of Contents****Arrowhead Research Corporation****(A Development Stage Company)****Notes to Consolidated Financial Statements (Continued)****September 30, 2007**

In deciding whether to make an additional capital contribution, the Company looks at such factors as progress toward a milestone together with what and how the management is doing with their spending plan. Since the Company works closely with the senior management of each subsidiary, the decision regarding funding milestones is made well in advance of the milestone date or event. Should Calando meet their milestones and the Company decides not to fund further, the Company would still own a majority of the outstanding voting securities of Calando.

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

<b>Subsidiary</b>	<b>Total Capital Assuming all Contributions Made</b>	<b>Future Capital Contributions</b>	<b>Time for Additional Capital Contributions</b>
Calando Pharmaceuticals, Inc.	\$ 14,000,000	\$ 6,000,000	12 months(1)

- (1) Under its Agreement to Provide Additional Capital with Calando, Arrowhead has the right to provide Calando up to \$6,000,000 in additional capital based upon the achievement of certain development milestones. The first milestone payment of \$3,000,000 is projected to be due during the first quarter of fiscal 2008. The last of these milestone payments for \$3,000,000 is projected to be due during the fourth quarter of fiscal 2008.

**Sponsored Research**

By funding university research, Arrowhead has the opportunity to ascertain the technical success at low research cost and, if warranted, continue cost effective development at the university by leveraging the already existing resources available to scientists at universities, such as laboratories and equipment and a culture that encourages the exchange of ideas. Moreover, the cultivation of relationships in the academic community provides an additional window into other promising technologies. The Company has the exclusive right to the technology developed by the research it sponsors. If such technology appears to have commercial applications, the Company can form a majority-owned subsidiary to develop the technology and provide stock in the subsidiary to the scientist and the university, in order to give them an economic interest in seeing the subsidiary succeed. Should the related technology prove to be too hard or too expensive to commercialize, Arrowhead may terminate the license agreement and return the licensed intellectual property to the university.

Sponsored Research expense for the years ended September 30, 2007, 2006 and 2005, was \$1,343,332, \$1,170,383 and \$944,425, respectively.

**Sponsored Research Agreement University of Florida**

The terms of the sponsored research agreement between Arrowhead and the University of Florida ( UF ) are summarized in the following table:

<b>Research Project</b>	<b>Period Covered</b>	<b>Total Estimated Project Cost</b>	<b>Annual Cost</b>	<b>Amount Paid as of September 30, 2007</b>	<b>Prepaid Amt as of September 30, 2007</b>
		\$ 647,533	\$ 323,767	\$ 502,690	\$ 111,756

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Development of flexible electronic devices	Thin film	Jul. 1, 2006
transistors		Jun. 30, 2008
(Dr. Andrew Rinzler)		
		(2 years)

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**Table of Contents****Arrowhead Research Corporation****(A Development Stage Company)****Notes to Consolidated Financial Statements (Continued)****September 30, 2007**

In connection with the merger between Unidym and Carbon Nanotechnologies, Inc., the rights and obligations under the sponsored research agreement with the University of Florida were transferred to Unidym.

**Sponsored Research Agreement Duke University**

The terms of the sponsored research agreement between Arrowhead and Duke University ( Duke ) are summarized in the following table:

<b>Research Project</b>	<b>Period Covered</b>	<b>Total Estimated Project Cost</b>	<b>Annual Cost</b>	<b>Amount Paid as of September 30, 2007</b>	<b>Prepaid Amt as of September 30, 2007</b>
CVD Growth of Well-Aligned Individual Single Walled Carbon Nanotubes (Dr. Jie Liu)	Dec. 1, 2005				
	Nov. 30, 2007				
	(2 years)	\$ 677,651	\$ 338,826	\$ 677,651	\$ 42,697

In connection with the merger between Unidym and Carbon Nanotechnologies, Inc., the rights and obligations under the sponsored research agreement with Duke University were transferred to Unidym.

**Sponsored Research Agreements California Institute of Technology**

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

<b>Research Project</b>	<b>Period Covered</b>	<b>Total Estimated Project Cost</b>	<b>Annual Cost</b>	<b>Amount Paid as of September 30, 2007</b>	<b>Prepaid Amt as of September 30, 2007</b>
Drug Discovery & Diagnostics (Dr. C. Patrick Collier)	Oct. 1, 2003				
	Sept. 30, 2008 (5 years)	\$ 1,393,806	\$ 292,540	\$ 1,101,266	\$ 0
Gene Regulatory Networks (Dr. Eric H. Davidson)	Jan. 1, 2007				
	Dec. 31, 2009 (3 years)	\$ 765,000	\$ 255,000	\$ 254,800	\$ 66,600

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The terms of the agreements calls 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. These research agreements are terminable by either party on 60-days written notice with an obligation to satisfy outstanding obligations at the time of cancellation. After fiscal 2007 year end, Arrowhead issued notices to terminate both sponsored research agreements with Caltech. The notices were issued under the terms of the respective sponsored research agreements. Under the terms of the agreements, upon notice of termination, Caltech will not make any further commitments and take reasonable action to terminate existing commitments. The Company is responsible for any outstanding commitments that cannot be cancelled. The total estimated settlement of the outstanding obligations is not expected to exceed \$210,000.

In January and July of 2007, Insert made contributions of each \$50,000 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.

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**Table of Contents****Arrowhead Research Corporation****(A Development Stage Company)****Notes to Consolidated Financial Statements (Continued)****September 30, 2007*****Sponsored Research Agreement - Stanford University***

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.

<b>Research Project</b>	<b>Period Covered</b>	<b>Total Estimated Project Cost</b>	<b>Annual Cost</b>	<b>Amount Paid as of September 30, 2007</b>	<b>Prepaid Amt as of September 30, 2007</b>
Microchip-based Biological Signal Delivery (Dr. Nicholas Melosh)	Jun. 1, 2005 May 31, 2007  (2 years)	\$ 600,000	\$ 300,000	\$ 600,000	\$ 0

The initial payment was \$110,000 to start. Arrowhead made quarterly payments of \$70,000 each. As of September 30, 2007, all payments under this agreement have been made and the agreement concluded.

***Employment Agreements***

On May 24, 2007, the Company entered into a Severance Agreement with each of R. Bruce Stewart, the Company's Chairman and Chief Executive Officer, and Joseph T. Kingsley, the Company's Chief Financial Officer, to provide for payments to the officers in the event of their retirement or the termination of their employment. The agreements provide that the executives will be entitled to receive severance payments and payments for any accrued and unused vacation time in the event that (i) the executive dies or voluntarily retires from the Company, (ii) the executive voluntarily terminates his employment other than for cause or (iii) the Company terminates the executive's employment other than for cause (each, a Termination Event). Upon the occurrence of a Termination Event, Mr. Stewart is entitled to receive as severance, during each of the first three years following the Termination Event, payments equal to his highest annual salary while employed by the Company, payable in equal monthly installments. Upon the occurrence of a Termination Event, Mr. Kingsley is entitled to receive as severance, during the first year following the Termination Event, payments equal, in the aggregate, to 100% of his highest annual salary while employed by the Company, payable in equal monthly installments, which payments will be reduced by any payments received by Mr. Kingsley or his estate from the Company's Long Term Disability Plan. Each agreement also provides that if any payment to the executive is subject to excise tax under Section 4999 of the Internal Revenue Code of 1986 (the Code), the Company will pay to the executive an amount sufficient, on an after-tax basis, to put the executive in the same position he would have been if the excise tax was not imposed. The timing of payments under the agreements is also subject to adjustment to avoid any adverse tax treatment under Section 409A of the Code.

As of September 30, 2007, the Company has accrued \$995,000 related to these severance agreements.

**NOTE 8. STOCK OPTIONS**

**Stock-Based Compensation** Arrowhead has two plans that provide for equity-based compensation. Under the 2000 Stock Option Plan, 1,615,875 shares of Arrowhead's Common Stock are reserved for issuance upon exercise of non-qualified stock options. No further grants can be made under the 2000 Stock Option Plan. The 2004 Equity Incentive Plan reserves 4,843,667 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. As of September 30, 2007, there were options

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**Table of Contents****Arrowhead Research Corporation****(A Development Stage Company)****Notes to Consolidated Financial Statements (Continued)****September 30, 2007**

granted and outstanding to purchase 1,615,875 and 3,379,048 shares of common stock under the 2000 Stock Option Plan and the 2004 Equity Incentive Plan, respectively. During the year ended September 30, 2007, 945,000 options were granted under the 2004 Equity Incentive Plan.

Prior to October 1, 2005, Arrowhead accounted 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.

Effective October 1, 2005, the Company accounts for its stock options under SFAS 123R, using the retrospective method. The retrospective application of SFAS 123R results in an increase of the net losses reported in fiscal 2005 of \$229,025. The accumulated deficit during the development stage as of September 30, 2005, increased by \$262,106, from a loss of \$9,217,004 to \$9,479,110 as a result of the retrospective application of SFAS 123R.

The following tables summarize information about stock options:

	Number of Options Outstanding	Weighted- Average Exercise Price Per Share
Balance at May 7, 2003		
Granted	150,000	0.20
Canceled		
Exercised		
Balance at September 30, 2003	150,000	0.20
Granted	1,570,000	1.00
Canceled	(25,000)	1.00
Exercised	(156,000)	0.23
Balance at September 30, 2004	1,539,000	1.00
Granted	2,095,000	2.53
Canceled	(170,000)	1.00
Exercised	(25,000)	1.00
Balance at September 30, 2005	3,439,000	1.93
Granted	2,235,000	4.79
Canceled	(1,161,167)	4.27
Exercised	(115,794)	2.95
Balance at September 30, 2006	4,397,039	2.74

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Granted	945,000	4.97
Canceled	(160,952)	5.32
Exercised	(186,164)	2.34
Balance at September 30, 2007	4,994,923	3.07
Exercisable at September 30, 2007	3,345,147	2.58

Exercise Prices	Number of Options	Weighted Average Remaining Life in Years	Weighted Average Exercise Price
\$1.00 6.89	4,994,923	7.9	\$ 3.10

At September 30, 2007, there were 1,464,619 options available for future grants under Arrowhead's 2004 Equity Incentive Plan. The intrinsic value of the options exercised during fiscal 2007 was approximately \$616,000.

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**(A Development Stage Company)**

**Notes to Consolidated Financial Statements (Continued)**

**September 30, 2007**

The fair value of the options granted by Arrowhead for the years ended September 30, 2007, 2006 and 2005 is estimated at \$2,346,216, \$4,701,098 and \$1,993,525, respectively.

The aggregate fair value of options granted by Unidym, Calando, Insert, Tego and Aonex for the years ended September 30, 2007, 2006 and 2005 is estimated at \$1,135,225, \$102,413 and \$64,460, respectively.

As of September 30, 2007, the estimated fair value of the unvested options for Arrowhead is \$3,010,000 with a weighted average remaining amortization period of 2.2 years.

As of September 30, 2007, the estimated aggregate fair value of the unvested options for Unidym, Calando, Insert, Tego and Aonex is \$1,077,000 with a weighted average remaining amortization period of 3.0 years.

The fair value of options is 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 49% to 57% (0% to 50% for Subsidiaries), risk-free interest rate of 4.33% to 5.10%, and expected life of five years. The weighted-average fair value of options granted by Arrowhead for the year ended September 30, 2007, 2006 and 2005 is estimated at \$2.48, \$2.10, and \$0.95, respectively, and the weighted-average exercise price is estimated at \$4.97, \$4.79 and \$2.53, respectively.

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.

**NOTE 9. 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, 2007, 2006 and 2005, the Company had consolidated losses of \$29,931,118, \$18,997,209 and \$6,854,918, respectively. The losses result in a deferred income tax benefit of approximately \$11,823,000 for fiscal 2007, \$7,504,000 for fiscal 2006 and \$2,617,000 for fiscal 2005, 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

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**September 30, 2007**

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 10. 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 operates in a single segment, nanotechnology.

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.

**NOTE 11. RELATED PARTY TRANSACTIONS**

During the fiscal year ended September 30, 2007, the Company's majority owned subsidiary, Unidym had product sales of \$39,381 to one of its stockholders.

During the fiscal year ended September 30, 2007, the Company's majority owned subsidiaries, Insert and Calando each paid \$82,500 in consulting fees and each made a \$50,000 contribution to the laboratory of Dr. Mark Davis at Caltech. Dr. Davis is a director and consultant for both Insert and Calando.

**NOTE 12. SUBSEQUENT EVENTS**

Effective October 24, 2007, Arrowhead and Tego a wholly-owned subsidiary of Arrowhead, entered into a Series A Preferred Stock Purchase Agreement, whereby Arrowhead purchased 15,000,000 share of a newly authorized Series A-2 Preferred Stock in Tego for an aggregate price of \$2.4 million.

Effective October 25, 2007, Dr. Russ Lebovitz was appointed Chief Executive Officer of Tego to chart the strategic direction and guide the operations of the new nano-biotechnology company. Tego is developing and commercializing therapeutics and other products based on the antioxidant properties of modified fullerenes. Dr. Lebovitz served previously as CEO of C Sixty, Inc., the company that pioneered the technology now owned by Tego.

Effective November 1, 2007, Larry G. Stambaugh was appointed as President and Chief Executive Officer of two of Arrowhead's majority-owned subsidiaries, Calando Pharmaceuticals, Inc. and Insert Therapeutics, Inc., and a merger between the two companies is being pursued. Mr. Stambaugh is the former Chairman, CEO and co-founder for Maxim Pharmaceuticals, Inc. At Maxim, he established a public, global biopharmaceutical company with a pipeline of product candidates for life-threatening cancers and liver diseases. During his time with Maxim he took the company public in the U.S. and Europe, conducted 17 clinical trials, including four phase 3 studies, in over 20 countries, established several corporate partnerships with large pharmaceutical companies and acquired a promising biotechnology company. He has a B.B.A. from Washburn University and is a C.P.A.

Effective December 1, 2007, Dr. Christopher Anzalone was appointed President and Chief Executive Officer of Arrowhead Research Corporation. Mr. Anzalone was also appointed to the Board of Directors of Arrowhead Research Corporation on December 1, 2007. Mr. R. Bruce Stewart relinquished his position as Chief





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**Notes to Consolidated Financial Statements (Continued)**

**September 30, 2007**

Executive Officer with the appointment of Mr. Anzalone and became Executive Chairman of the Board. Mr. Joseph Kingsley relinquished his position as Interim President with the appointment of Mr. Anzalone. Prior to joining Arrowhead, Dr. Anzalone was founder and CEO of Benet Group, LLC, a private equity firm focused on actively building new nano/biotechnology companies out of raw university-generated science. While at Benet, he was founding CEO of two companies, Nanotope, Inc., based on technology developed at Northwestern University and Leonardo Biosystems, based on technology developed at the University of Texas.

On December 4, 2007, Unidym, Inc. announced the completion of a private financing with qualified investors, pursuant to which Unidym issued and sold an aggregate of 5,625,889 shares of its Series C Preferred Stock (the "Shares") for \$1.80 per share and aggregate net cash proceeds of approximately \$9.8 million. Arrowhead participated in this financing and invested an additional \$3.0 million in Unidym. The Series C Preferred Stock carries certain customary rights and preferences including a liquidation preference, preferential dividends, if declared by Unidym's Board of Directors, protective provisions, and the right to appoint one director to the Unidym Board of Directors. After giving effect to the Shares issued in the Private Placement, Arrowhead retains majority ownership of Unidym.

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**Table of Contents****Arrowhead Research Corporation****(A Development Stage Company)****Notes to Consolidated Financial Statements (Continued)****September 30, 2007****NOTE 13. SUPPLEMENTARY QUARTERLY CONSOLIDATED FINANCIAL DATA (unaudited)**

	First Quarter Ended December 31, 2006	Second Quarter Ended March 31, 2007	Third Quarter Ended June 30, 2007	Fourth Quarter Ended September 30, 2007
Revenues:	\$ 11,092	\$ (3,697)	\$ 622,599	\$ 578,029
Cost of goods sold			347,601	376,487
Gross profit on sales	11,092	(3,697)	274,998	201,542
Operating and expenses:				
Salaries	1,725,307	2,014,740	2,660,420	3,647,833
Consulting	228,405	389,638	637,052	543,048
General & administrative	939,295	1,458,997	1,567,426	1,274,433
Research & development	1,487,734	3,501,725	12,903,401	3,037,687
Patents amortization	103,991	103,991	103,991	103,991
Total operating expenses	4,484,732	7,469,091	17,872,290	8,606,992
Operating loss	(4,473,640)	(7,472,788)	(17,597,292)	(8,405,450)
Other income (expenses), net	766,470	1,298,979	5,119,744	832,859
Net income (loss)	\$ (3,707,170)	\$ (6,173,809)	\$ (12,477,548)	\$ (7,572,591)
<b>Amounts per common share:</b>				
Income (loss), continuing operations undiluted	\$ (0.11)	\$ (0.18)	\$ (0.34)	\$ (0.20)
Net loss per share, undiluted	(0.11)	(0.18)	(0.34)	(0.20)
Weighted-average shares, undiluted	34,181,399	34,232,149	36,422,464	38,602,847

	First Quarter Ended December 31, 2005	Second Quarter Ended March 31, 2006	Third Quarter Ended June 30, 2006	Fourth Quarter Ended September 30, 2006
Revenues:				
Net sales	\$ 252,500	\$ 57,500	\$ 246,229	\$ 39,229
Costs and expenses:				
Salaries	1,369,479	1,465,290	2,062,394	1,614,478
Consulting	118,478	149,874	171,375	309,993
General & administrative	977,569	1,121,886	1,292,313	997,464
Research & development	1,820,122	3,165,885	1,216,759	2,834,233
Patents amortization	80,024	88,156	86,826	136,242

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Total operating expenses	4,365,672	5,991,091	4,829,667	5,892,410
Operating loss	(4,113,172)	(5,933,591)	(4,583,438)	(5,853,181)
Other income (expenses), net	828,374	739,046	472,005	(553,252)
Net income (loss)	\$ (3,284,798)	\$ (5,194,545)	\$ (4,111,433)	\$ (6,406,433)
<b>Amounts per common share:</b>				
Income (loss), continuing operations undiluted	\$ (0.12)	\$ (0.16)	\$ (0.12)	\$ (0.19)
Net loss per share, undiluted	(0.12)	(0.16)	(0.12)	(0.19)
Weighted-average shares, undiluted	27,991,305	32,102,463	33,810,131	33,995,351

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