ARROWHEAD RESEARCH CORP
Form 10-K
December 20, 2011
Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-K

(Mark One)

x **ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended September 30, 2011.

¨ **TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission file number 000-21898

ARROWHEAD RESEARCH CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	46-0408024
(State of incorporation)	(I.R.S. Employer Identification No.)

225 S. Lake Avenue, Suite 300

Pasadena, California 91101

(626) 304-3400

(Address and telephone number of principal executive offices)

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

Title of each class	Name of each exchange on which registered
Common Stock, $0.001 par value	The NASDAQ Capital Market

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

None

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 x

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 x

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 x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x 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. x

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

The aggregate market value of issuer s outstanding Common Stock held by non-affiliates was approximately $53 million based upon the bid price of issuer s Common Stock on March 31, 2011.

As of December 15, 2011, 10,525,941 shares of the issuer s Common Stock were outstanding.

Table of Contents

TABLE OF CONTENTS

Table of Contents

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.

Table of Contents

PART I

ITEM 1. BUSINESS

Description of Business

Unless otherwise noted, (1) the term Arrowhead refers to Arrowhead Research Corporation, a Delaware corporation, (2) the terms the Company, we, us, and our, refer to the ongoing business operations of Arrowhead and its Subsidiaries, whether conducted through Arrowhead or a subsidiary of Arrowhead, (3) the term Subsidiaries refers collectively to Arrowhead Madison Inc. (Madison), Calando Pharmaceuticals, Inc. (Calando), Ablaris Therapeutics, Inc. (Ablaris), Agonn Systems, Inc. (Agonn ,) and Tego Biosciences Corporation (Tego) as well as our former subsidiary, Unidym, Inc. (Unidym), which was divested in January 2011, (4) the term Minority Investments refers collectively to Nanotope, Inc. (Nanotope) and Leonardo Biosystems, Inc. (Leonardo) in which the company holds a less than majority ownership position, and (5) the term Common Stock refers to Arrowhead s Common Stock and the term stockholder(s) refers to the holders of Arrowhead Common Stock.

Overview

Arrowhead Research Corporation is a clinical stage nanomedicine company developing innovative therapies at the interface of biology and nanoengineering. Arrowhead s world-class capabilities and intellectual property covering nucleic acid delivery, siRNA chemistry, and tissue targeting allow it to design and develop therapeutic agents for a wide range of diseases. The company s lead products include CALAA-01, an oncology drug candidate based on the gene silencing RNA interference (RNAi) mechanism, and Adipotide, an anti-obesity peptide that targets and kills the blood vessels that feed white adipose tissue. Arrowhead is leveraging its proprietary Dynamic Polyconjugate (DPC), Liposomal Nanoparticle (LNP), and RONDEL delivery platforms to support its own pipeline of preclinical and clinical candidates and to secure external partnerships and collaborations with biotech and pharmaceutical companies.

Arrowhead was originally incorporated in South Dakota in 1989, and was reincorporated in Delaware in 2000. The Company s principal executive offices are located at 225 South Lake Avenue, Suite 300, Pasadena, California 91101, and its telephone number is (626) 304-3400. As of September 30, 2011, Arrowhead had 11 full-time employees at the corporate office and seven full-time employees at its Subsidiaries. On October 21, 2011, as a result of an acquisition of Roche s RNAi business, 39 full-time employees were added at Arrowhead s newly acquired Madison, Wisconsin research facility.

Our Strategy

Partnerships with other pharmaceutical and biotech companies to drive revenue are the primary focus of our business development efforts. Given the array of our siRNA delivery platforms, we expect to enter disease specific siRNA therapeutic collaborations and siRNA delivery collaborations with large pharmaceutical and biotechnology companies which we believe will provide the opportunity to generate revenue in the near term. Using our experience, disease specific collaborations will seek to develop and optimize siRNA lead candidates based on disease targets supplied by the partner. The siRNA therapeutics will be optimized to operate efficiently using the delivery system that best addresses the disease indication. Arrowhead will seek to generate revenue through upfront technology access fees, research funding, research milestones, licensing fees, clinical milestone payments and royalties. The company also plans to continue development of its internal preclinical and clinical pipeline including ongoing RONDEL-enabled siRNA drug candidates, DPC-enabled drug candidate development, and the non-siRNA-based anti-obesity drug candidate, Adipotide. If these efforts are successful, these candidates may be sold or out-licensed in the future.

Recent Event Acquisition of Roche Facility and Intellectual Property

In October 2011, Arrowhead acquired Roche s RNAi business, including its RNA therapeutic assets, related intellectual property and research facility in Madison, Wisconsin. Over the last year, we have been implementing our transition from a diversified nanotechnology company to a pure play nanomedicine company. This strategic acquisition serves as the cornerstone of this transition. We are now a full-service, fully-enabled nanomedicine company with new R&D capabilities that can support the development of our existing and new programs. Our recently acquired scientific leaders, licensed technology, and development operations are expected to accelerate both our RNAi and non-RNAi programs synergistically.

The addition of these assets to Arrowhead s existing RNAi technologies solidifies our position as one of the most advanced and broadest RNAi therapeutics companies in the world. With completion of the Roche acquisition, Arrowhead now possesses the following siRNA assets:

Non-exclusive license from Alnylam providing license to use canonical siRNAs in oncology, respiratory diseases, metabolic diseases and certain liver diseases. This includes a sub-license from Isis Pharmaceuticals giving Arrowhead license for siRNA chemical modifications for these specific disease areas.

Non-exclusive license from City of Hope Comprehensive Cancer Center to Dicer substrate and Meroduplex siRNAs. The Dicer technology may provide advantages over canonical siRNAs in certain circumstances. In addition, different siRNA formats may trigger RNAi more or less efficiently on a target-by-target basis.

Ownership of the former Mirus Bio, including lab facilities, and the entire patent estate covering the Dynamic Polyconjugate (DPC) siRNA delivery system.

Access to certain patents on targeting siRNA drugs with antibodies and small molecules from Roche.

State of the art laboratory facilities in Madison, Wisconsin, managed by long term leaders in oligonucleotide therapeutics and delivery, including an onsite state-of-the-art small animal research facility and an offsite primate colony.

Intellectual property covering Roche s internally developed liposomal nanoparticle drug delivery technology.

RONDEL siRNA delivery system which has demonstrated gene knockdown in humans in the CALAA01 clinical trial.

Minority ownership position in Leonardo Biosystem s multi-stage silicon-based delivery system.

CALAA-01 Phase I oncology drug candidate

We believe this represents one of the broadest siRNA drug technology and delivery portfolios in the world. We have extensive know how and expertise in the siRNA therapeutic space, and importantly, we have extensive delivery capabilities.

Table of Contents

About RNA Interference & the Promise of siRNA Therapeutics

RNA interference (RNAi) is a mechanism present in living cells that inhibits the expression of a specific gene, thereby affecting the production of a protein of interest. Deemed to be one of the most important recent discoveries in life science with the potential to transform medicine, the discoverers of RNAi were awarded the Nobel Prize for Physiology or Medicine in 2006. Mediated by small interfering RNAs (siRNA), a class of ribonucleic acid (RNA) molecules, 20-25 nucleotides in length, RNAi-based therapeutics can leverage this natural pathway of gene silencing to potentially target and shut down specific disease causing genes.

Small molecule or antibody drugs have proven effective at inhibiting certain cell surface, intracellular, and extracellular targets. However, certain drug targets such as intranuclear genes and some proteins have proven difficult to inhibit with traditional drug-based and biologic therapeutics. Developing effective drugs for these targets would have the potential to address a very large underserved market for the treatment of many diseases. Using its potential to specifically target and silence any gene target, siRNA therapeutics may be able to address previously undruggable targets, unlocking the market potential of such targets.

Several classes of RNA molecules have been utilized to generate RNAi mediated gene knockdown. Canonical siRNAs are the traditionally used 20-25 nucleotide long RNA molecules that interfere with post-transcription gene expression. Meroduplex siRNAs are three stranded RNA constructs also capable of interfering with post transcription gene expression. Dicer substrates are synthetic RNA duplexes that are approximately 27 nucleotides long, and have been shown in some studies to be more potent than 21-mer siRNA with less immune stimulation. Through licenses, Arrowhead has access to all three of these technologies collectively covering a broad range of potential targets.

Addressing the siRNA Delivery Challenge

To date, the primary challenge to siRNA therapeutics has been delivering the fragile, often immunogenic and otherwise rapidly cleared siRNA molecules, into the cytoplasm of the cell, where RNAi activity occurs. To date, the hurdle of delivery has prevented siRNA therapeutics from reaching their full potential. Many companies have attempted to overcome the delivery challenge. Most early systems involved cholesterol conjugates or traditional liposomes. These have not yet proven optimal due to toxicity and immunogenicity when studied in clinical trials.

To address the delivery challenge, Arrowhead has assembled a leading team of researchers with extensive siRNA therapeutic know how and one of the broadest portfolios of siRNA delivery technologies available, with the potential to unlock siRNA as a therapeutic class through superior delivery, including:

The Dynamic Polyconjugate (DPC) system is an amphipathic polymer to which shielding agents such as polyethylene glycol, as well as targeting ligands are reversibly attached, thus protecting the fragile siRNA therapeutic and specifying tissue specific delivery.

The RONDEL™ delivery system utilizes targeted cyclodextrin polymers to deliver siRNA and other oligonucleotides to tumors. Human *in vivo* gene knockdown has been demonstrated in a Phase I cancer trial, establishing proof of concept for the RONDEL system.

Affiliate Leonardo Biosystems is developing a multi-stage delivery technology, initially for oncology applications. The first stage of the system consists of biodegradable silicon nanoparticles that are rationally designed to circumvent the multiple biological barriers en route to the target site. The first stage silicon particle is loaded with second stage delivery vectors such as liposomes or polymeric particles carrying a therapeutic agent, such as siRNA or a small molecule drug.

Stable Nucleic Acid Lipid Nanoparticles (SNALP) through a license agreement with Tekmira.

Table of Contents

Roche s internally developed liposomal nanoparticles which have shown efficacy in vivo at knocking down targets in various animal disease models including models of human diseases such as cancer and chronic obstructive pulmonary disease (COPD).

No single method of delivery will be optimal for all disease areas, targets, and tissue types throughout the body. However, Arrowhead believes that these five technology platforms together represent the most comprehensive portfolio of solutions for effective delivery of therapeutic siRNA against a broad range of disease indications. We see this as transformational for Arrowhead and potentially for RNAi as a new therapeutic class of drugs. The ability to optimize delivery on a target-by-target basis is a critical tool, and we believe it positions Arrowhead as a powerful partner for biotech and pharmaceutical companies interested in developing candidates against multiple targets which may be undruggable by small molecule inhibitors or antibodies. We intend to use this leadership position to negotiate partnerships and collaborations as well as support our own internal pipeline of drug candidates.

The Dynamic Polyconjugate siRNA Delivery System

The DPC delivery system represents an elegant solution to the siRNA delivery problem, specifically designed to overcome barriers to systemic administration of siRNA. First developed by our scientists in Madison, Wisconsin, the inspiration for DPC technology came from the physical characteristics of viruses, nature s own nanoparticles for nucleic acid delivery. Viruses are efficient at finding their target cells and delivering their nucleic acid payload to the proper cellular compartment. Key features of viruses are their small size, their overall negative surface charge, their specificity for particular cell types based on receptors unique to that cell, and their ability to disassemble and release their nucleic acid cargo to the proper cell compartment in response to cellular triggers. All of these features are incorporated into DPC technology.

DPCs are small nanoparticles, 5-20 nanometers (nm) in size, composed of an amphipathic polymer to which shielding agents such as polyethylene glycol, as well as targeting ligands are reversibly attached. In some constructs, the siRNA payload is attached to the DPC, while in other constructs, the siRNA circulates attached to a different carrier. When attached, the DPC construct protects the siRNA payload while allowing the polymer to circulate in the blood without creating undue toxicity. The targeting ligand guides the nanoparticles to the cell of interest where, together with the siRNA, it is taken up into a membrane-enclosed cellular compartment known as an endosome. The polymer is selected for its ability to lyse the endosomal membrane which releases the siRNA into the cytoplasm. There, it engages the cell s RNAi machinery, ultimately resulting in knockdown of target gene expression. The lytic chemistry of the DPC polymeric backbone is modified, or masked , using proprietary chemistry. Masking of the polymer s lytic chemistry accomplishes two interrelated objectives that are critical to in vivo siRNA delivery:

Reduction of toxicity by controlling when the membrane lytic property of the polymer is activated.

Inhibition of non-specific interactions with blood components and non-targeted cell types.

Dynamic Polyconjugate system and mechanism of siRNA delivery:

Table of Contents

We believe our DPC technology is radically different from standard liposomal or lipid nanoparticle siRNA delivery systems used by the majority of RNAi therapeutics companies. DPCs are smaller than lipid-based systems, enabling more efficient distribution from the vasculature to the target tissue. DPCs can use targeting ligands for cell-type specific delivery, which has yet to be achieved with the lipid-based systems used in clinical development programs. The modular nature of DPCs allows each component to be optimized for higher efficacy and lower toxicity. As a polymer-based system, DPCs are fundamentally different from lipid-based systems. This has the potential to open up an entirely new class of macromolecules to enable siRNA delivery.

Hepatocytes, the key parenchymal cells of the liver, are a particularly attractive target cell type for siRNA delivery given their central role in several infectious and metabolic diseases. Latest generation DPCs have shown high effectiveness in rats and non-human primates with ED80 (dose producing 80% knockdown of the gene of interest) values of ~0.1 mg/kg siRNA after a single dose. Increasing the dose two-fold in non-human primates results in >99% knockdown with a duration of effect of nearly 7 weeks. DPCs are also well tolerated and have single-dose therapeutic indices of >10 in non-human primates, indicating that there is a ten-fold safety margin between the effective dose and the toxic dose. The magnitude of the safety margin and efficiency of gene knockdown in non-human primates is, to our knowledge, unprecedented in the therapeutic RNAi field as compared to available data generated with competing delivery systems, and position DPC technology as a leading technology for siRNA delivery to liver.

Our DPC cancer delivery program is developing the optimal components for targeting DPCs to tumors. This includes identifying ligands for efficient targeting, screening polymer libraries for the most potent polymer for a given cancer cell type and enhancing tumor uptake by modulating the pharmacokinetic properties of the DPC. DPCs for several types of tumors are currently under development. Hepatocellular carcinoma (HCC) has been one of our focus areas. Gene knockdown of 40-50% has been achieved with a single dose of tumor-directed DPCs in a mouse orthotopic HCC tumor model. These results equal or surpass those published with other best-in-class siRNA delivery platforms and validate our overall strategy for tumor targeted DPC delivery. Our current focus is on further improving delivery to tumors, gene knockdown efficacy and therapeutic index by optimizing individual DPC components in animal models.

Calando Pharmaceuticals, Inc.

Overview

Founded by Arrowhead in 2005, Calando is a clinical stage nano-biotechnology company focused on RNAi therapeutics developing RONDEL, a nanoparticle-based drug delivery system, for siRNA. In August 2011, we completed enrollment in the Phase I trial of its lead siRNA candidate in oncology, CALAA-01. Initial proof of concept data showed systemic delivery of siRNA and the successful silencing of a widely recognized cancer gene via RNA interference (RNAi) in humans. A Phase Ib trial has been initiated to determine if a modified dosing schedule will increase patient tolerability and to gather additional data.

RONDEL is based on pioneering technology invented in the Chemical Engineering department of the California Institute of Technology by Dr. Mark Davis. Our proprietary molecules are designed to safely and effectively deliver small RNAs to target cells. Currently focused on oncology applications, Our flexible platform has the potential to be applied to a wide range of diseases beyond cancer, as well as to therapeutic classes beyond siRNA therapeutics.

We are focused on the clinical development of RONDEL™, and CALAA-01, the associated drug candidate. Interim clinical results show preliminary proof of RNAi activity in patients treated with the highest doses. These results represent several notable firsts in the field of RNAi, including first to demonstrate definitive RNAi delivery after systemic administration and first to show dose dependent accumulation in target cells. In addition, CALAA-01 has been shown to mediate specific gene inhibition in humans as evidenced by mRNA knockdown and protein knockdown in tumor biopsies.

In addition, in December 2008, we concluded a Phase I trial with CRLX101 (formerly IT-101) using a drug candidate consisting of its delivery system and a small molecule anti cancer agent. Patients from this clinical trial reported fewer and less serious side effects with several cases of stable disease over many months of treatment. One patient with pancreatic cancer had stabilized disease for 17 months. The further development of the small molecule delivery platform and IT-101, the associated drug candidate, was licensed to Cerulean Pharma, Inc., (Cerulean) a private biotech company in Boston, Massachusetts in June 2009. Cerulean has since advanced CRLX101 to a Phase II clinical trial in non-small cell lung cancer.

Platform Technology

Based on a novel polymeric sugar (linear cyclodextrin) molecule, RONDEL has been applied thus far to the delivery of two classes of therapeutics: siRNA and other oligonucleotides and small molecule drugs. The polymer is combined with the drug molecule to form a drug

containing nanoparticle sized larger than 10 nanometers and smaller than 100 nanometers. We believe that this particle size is important: drug molecules below 10 nanometers are quickly cleared from the body in the urine and nanoparticles larger than 100 nanometers are not able to escape leaky blood vessels that feed tumors. Nanoparticles between 10 and 100 nanometers can lead to preferential accumulation in tumor tissue, where the drug can take effect, leaving other tissues less affected. The drug delivery system has the added benefits of increasing solubility, allowing targeting of the nanoparticles, and having a low immune stimulatory potential.

Table of Contents

RONDEL™ Technology

One of the key challenges to using RNAi therapy has been the inability to systemically deliver siRNA in humans. Naked siRNA is degraded and destroyed by nucleases in the bloodstream and is not taken up by cells. The RONDEL system is providing new hope that effective siRNA delivery can be achieved safely and economically. Our polymers form the foundation for a three-part RNAi/Oligonucleotide Nanoparticle Delivery (RONDEL) technology. The first component is the positively charged polymer that, when mixed with siRNA, binds to the negatively charged backbone of the siRNA. The polymer and siRNA self-assemble into nanoparticles less than 100 nm diameter that fully protect the siRNA from nuclease degradation in serum. The cyclodextrin in the polymer enables the surface of the particles to be decorated by stabilizing agents and targeting ligands. These surface modifications are formed by proprietary methods involving the cyclodextrins.

The surface-modifying agents have terminal adamantane groups that form inclusion complexes with the cyclodextrin and contain polyethylene glycol (PEG) to endow the particles with properties that prevent aggregation, enhance stability and enable systemic administration. Targeting molecules can be covalently attached to the adamantane-PEG modifier, enabling the siRNA-containing particles to be targeted to tissues of interest.

RONDEL technology offers the following advantages:

Generalized delivery system Binds to and self-assembles with the siRNA to form uniform colloidal-sized particles. Analysis has shown that these particles are spherical and between 10 nm and 100 nm in diameter.

Ease of Administration The RONDEL system has been designed for use as part of a two-vial system: one vial contains the delivery components, and the second vial contains the therapeutic siRNA payload. When mixed pursuant to a simple protocol, the particles self-assemble into siRNA containing nanoparticles.

Any siRNA sequence can be easily substituted Because RONDEL binds to the siRNA backbone, theoretically, any siRNA therapeutic could be in the second vial.

Table of Contents

Stealthy delivery to the immune system The sugar-based delivery vehicle allows for repeat dosing with reduced risk of immune reactions. Unlike lipid delivery vehicles, the cyclodextrin-based RONDEL delivery system is expected to have a low immune-stimulatory potential.

Safety The RONDEL technology has been shown to be non-toxic in *in vitro* testing with human cell cultures, and the fully formulated polymer/siRNA particles exhibit a significant therapeutic window of safety in animals, even when repeated doses (up to eight doses over a four week period) are used.

Effective targeted delivery Calando and its partners have demonstrated successful delivery of functional siRNA therapeutics to tumor cells and to hepatocytes by systemic administration and confirmed sequence-specific gene inhibition in humans.

CALAA-01

CALAA-01 is a combination of RONDEL and a patented siRNA targeting the M2 subunit of ribonucleotide reductase, a clinically-validated cancer target. Ribonucleotide reductase catalyzes the conversion of ribonucleosides to deoxyribonucleosides and is necessary for DNA synthesis and replication, and thus tumor growth. The internally developed siRNA demonstrates potent anti-proliferative activity across multiple types of cancer cells. We believe the use of CALAA-01 in our Phase I trial, initiated in June 2008, was the first siRNA therapeutic candidate to target cancer in a human clinical study and also the first systemic delivery of an siRNA therapeutic candidate.

Interim clinical results were presented at the 2010 American Society of Clinical Oncology meeting (ASCO). Data from a total of 15 patients accrued to 5 dose levels (3, 9, 18, 24, 30 mg/m^2) showed that treatment-related adverse events were mostly mild to moderate with fatigue, fever/chills, allergic, or gastrointestinal-related adverse events most frequently observed. Importantly, no changes in coagulation, liver function tests, or kidney function were observed.

Analysis of tumor biopsies from three melanoma patients showed the presence of intracellular nanoparticles in amounts that correlated with dose. Additionally, a reduction was found in both the RRM2 messenger RNA and protein levels when compared to pre-dosing tissue. Furthermore, the presence of siRNA-mediated mRNA cleavage products was confirmed by 5 -RACE, demonstrating that siRNA-mediated mRNA cleavage occurs specifically at the site predicted for an RNAi mechanism. These results were published in March 2010 in the scientific journal *Nature*, citing these interim data from our Phase I trial as the first evidence of systemic delivery of siRNA, and the successful silencing of a widely recognized cancer gene via RNA interference in humans.

In August 2011 enrollment into the Phase I clinical trial was completed. Adverse events observed coincided with an increase in certain cytokine levels. Elevation in cytokines is consistent with an acute immune response to the natural siRNA used in CALAA-01. These reactions also appeared to be transient, such that if a patient stayed on CALAA-01, the cytokine responses often subsided. Based on these results, a Phase Ib trial was initiated using a modified dosing schedule in which patients are pretreated with a lower dose to assess whether this strategy can increase patient safety and further increase the maximum tolerated dose. Patient accrual is ongoing and additional safety and pharmacodynamic data will be forthcoming.

We were was encouraged that the adverse events observed to date did not appear to be related to the RONDEL delivery system but were consistent with an innate immune response to the natural, unmodified siRNA inside. This opens the pathway to potentially overcome these symptoms by introducing strategic chemical modifications in the siRNA component in future product candidates, a strategy that has been proven in the literature to significantly suppress these types of immune responses.

Cyclosert™ Technology & CRLX101 (formerly IT-101)

The other polymeric drug delivery technology, Cyclosert, was designed by Calando s scientists for the delivery of small molecule drugs. Cyclosert provides many of the same benefits as the RONDEL system. In December 2008, Calando completed a Phase I trial with IT-101, comprised of Calando s polymer and Camptothecin, a potent anti-cancer drug, with a positive safety profile and indications of efficacy. On June 23, 2009, Calando entered into agreements to license Cyclosert and IT-101 to Cerulean. Under the terms of the agreements, Calando granted Cerulean an exclusive royalty-bearing worldwide license to certain patent rights and know-how and transferred to Cerulean certain intellectual property related to the linear-cyclodextrin drug delivery platform and IT-101 in exchange for an initial payment of $2.4 million. Cerulean also will pay development milestone payments of up to $2.75 million if IT-101 progresses through clinical trials and receives marketing approval. If approved, Calando is also entitled to receive up to an additional $30 million in sales milestone payments, plus royalties on net sales. Under the agreements, Calando retained the rights to use the linear-cyclodextrin drug delivery platform to deliver any kind of nucleic acid including siRNA. As such, Calando retains the rights to its RONDEL platform, as well as the CALAA-01 and CALAA-02 lead

drugs.

Table of Contents

Intellectual Property

We control an intellectual property portfolio of patents covering certain linear cyclodextrin polymers and related technology (the linear cyclodextrin system). The portfolio covers both RONDEL and Cyclosert. In June 2009, Calando sold and assigned to Cerulean certain patents for linear cyclodextrin polymers conjugated to drugs. Additionally, Calando granted Cerulean an exclusive license under its rights to the linear cyclodextrin system to develop certain drug products. We retain rights to use the linear cyclodextrin system to develop drugs in which the therapeutic agent is a nucleic acid (e.g., siRNA), a second generation epothilone, tubulysin or cytolysin.

We also own an issued patent covering the siRNA active ingredient in CALAA-01 and has filed a patent application to cover the siRNA active ingredient of CALAA-02. We have licensed patents from Alnylam relevant to siRNA therapeutics for CALAA-01 and CALAA-02. We have out licensed to R&D Biopharmaceuticals the use of the linear cyclodextrin system for delivering tubulysin and cytolysin as well as second generation synthetic epothilone drugs. The RNAi and nanoparticle drug delivery patent landscape is complex and rapidly evolving. As such, we may need to obtain additional patent licenses prior to commercialization of its lead drug candidates.

The Drug Delivery and Oncology Markets

Despite advances in drug discovery, pharmaceutical firms remain challenged by getting the right compound to the right place in the human body, where it can maximize its effect while minimizing side effects.

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. The National Institutes of Health has estimated the direct medical cost of cancer to be in excess of $74 billion per year. Dose limiting toxicity, poor tissue specificity, and large effective distribution are major restrictive factors in effective cancer chemotherapy. Consequently, complete tumor response is not often achieved in patients receiving chemotherapy alone. We believe that this offers a potentially significant opportunity for firms developing technologies to more effectively deliver anti-cancer agents to malignant cells. According to Decision Resources, the global market for oncology therapeutics is expected to grow from $57 billion in 2007 to $85 billion in 2013, which is approximately twice the pace of the broader market for pharmaceuticals with a CAGR of 10.8% through 2013 versus 4.6% for all pharmaceuticals. This growth is driven by high unmet medical need for new cancer therapeutics, a high price premium generated by novel drugs to treat conditions with few other available options, and insurers willing to reimburse at high prices for novel therapies due to lack of alternative therapies. Additionally, the shift towards transforming cancer into a chronic illness by management with long term suppressive therapies bodes well for oncology companies developing drugs that will require lifelong maintenance therapy versus the old line chemotherapy cyclic therapy. There is ample opportunity for novel therapeutics in cancer. siRNA may provide new therapeutics through the ability to knockdown targets previously undruggable by monoclonal antibodies or small molecule drugs.

Key Personnel

Christopher Anzalone, Ph.D., is the CEO of Calando. Thomas Schluep, Sc.D., is the Chief Scientific Officer (CSO) of Calando.

Calando s Board of Directors consists of R. Bruce Stewart, Executive Chairman of Arrowhead, Christopher Anzalone, CEO and director of Arrowhead, Nanotope and Leonardo, Dr. Bruce Given, COO of Arrowhead, and Edward W. Frykman, a member of the Arrowhead Board. Dr. Mostafa Analoui is an independent Board member.

As of September 30, 2011, Arrowhead owned approximately 79% of Calando s outstanding common stock and 74% on a fully diluted basis.

Ablaris Therapeutics, Inc.

Obesity Market Overview

We founded Ablaris, a nanomedicine company, to commercialize a new class of fat-targeting drugs for the obesity and diabetes markets. Obesity is a prevalent metabolic disorder associated with an increased risk of type 2 diabetes, hypertension, cardiovascular diseases, stroke and cancers. Additionally, obese individuals suffer from associated psychological effects such as anxiety and

Table of Contents

depression. Non-pharmacological management of obesity, including diet changes and exercise, is first line treatment; gastrointestinal bypass or gastric banding procedures offer alternative options for treatment of severe obesity after less drastic options have failed. These surgical procedures have significant associated risks, including death. Additionally, with the exception of the gastric bypass operation, diet and exercise are often insufficient to normalize body weight and prevent the diseases associated with obesity, due to the difficulty experienced by most adhering to a strict dietary and exercise regimen. Thus, safe and effective drugs are needed for the treatment of obesity and related disorders.

Seventy two million Americans are classified as obese, over one-third of the U.S. adult population, according to the Centers for Disease Control (CDC). US healthcare costs for obesity were estimated to be $147 billion in 2009 and are accelerating rapidly (Finkelstein, et al. Health Affairs 2009, 28(5), w822). An industry forecaster, Global Data, estimates that the $1.1 billion worldwide market (2009) for anti-obesity drugs could double to $2 billion by 2017, with projected annual growth rate of 7 percent. The increasing patient population and high unmet need in terms of safety and efficacy will be the primary drivers of this growth. (GlobalData, Anti-Obesity Therapeutics - Pipeline Assessment and Market Forecasts to 2017).

Despite the size of the potential market, obesity remains a large and growing unmet medical need. It has been over a decade since the FDA has approved a new weight loss drug. In 2010, the FDA declined to approve three new drugs for weight loss indications, Orexigen Therapeutics Inc. s Contrave™, Arena Pharmaceuticals Inc. s lorcaserin and Vivus Inc. s Qnexa™, due to various safety concerns. Theratechnologies Inc s drug tesamorelin was approved in 2010 to reduce visceral adipose tissue, but only for a narrow indication in HIV-infected patients with lipodystrophy, not as a broad weight-loss drug. Arrowhead has been keenly interested in the obesity market, but has been careful to identify a platform and target indications where we believe we can deliver a balance of patient benefit and a safety profile that would be acceptable to the FDA and other regulatory authorities.

Our Approach to the Treatment of Obesity

Ablaris lead compound, Adipotide , targets a receptor expressed by the endothelial cells lining the blood vessels of white adipose (fat) tissue. This targeting ligand was discovered using *in vivo* phage display, a technique in which a randomly generated library of peptides was injected into an animal, and sequences that homed to white fat were isolated and amplified. The targeting ligand was then fused to an antimicrobial agent designed to cause cell death (apoptosis). This apoptosis-inducing peptidomimetic has not been shown to have an effect on mammalian cells in systemic circulation, but it induces cell death once internalized by selectively targeted cells by disrupting their mitochondrial membranes. Because fat requires a continuous turnover of new capillaries to supply oxygen and maintain its storage capacity, targeted destruction of these blood vessels leads to the gradual resorption of fat and correspondingly dramatic weight loss in treated animals. This technology was developed by Drs. Wadih Arap and Renata Pasqualini at the MD Anderson Cancer Center in Houston, Texas. In December 2010, we obtained an exclusive world-wide license for its use in weight-loss and obesity-related metabolic conditions, including diabetes.

Preclinical Studies

Preclinical studies of the drug in rodent models were first reported in the highly respected, peer-reviewed journal *Nature Medicine* in 2004. These studies showed obese mice lost over 30% of their body weight after only one month of daily, subcutaneous injection of the Adipotide treatment. These results were confirmed by an independent laboratory and reported in the journal *Diabetes* in 2010. However, a major hurdle in the development of weight-loss drugs is the significant differences in the physiological and metabolic regulation of food intake and energy expenditure between rodents and primates. To address this challenge, Drs. Arap and Pasqualini, in collaboration with Ablaris, carried out extensive studies of adipotide therapy in three species of non-human primates. These studies were reported in the journal *Science Translational Medicine* in November 2011. In spontaneously obese rhesus monkeys, a 28-day course of Adipotide treatment caused a 7-15% total body weight loss with a corresponding 27% average reduction in abdominal fat. Importantly, weight loss was shown to be primarily in the form of fat loss and not fluid loss or muscle wasting. Insulin resistance, a key risk factor for diabetes, rapidly improved in the obese monkeys during Adipotide treatment. Lean monkeys treated with Adipotide did not lose weight, indicating that the mechanism of action may be selective for obese animals. The drug was well-tolerated in monkeys, with minimal side-effects at the therapeutic dose. Recently, researchers at MD Anderson have validated the existence and function of the receptor targeted by Adipotide in humans a result which was published in the *Proceedings of the National Academy of Sciences* in October 2011, which we believe bodes well for clinical translation of this therapeutic strategy.

Clinical Development

Most weight loss drugs in clinical development target the central nervous system (CNS), acting on the brain to increase metabolic energy expenditure and/or decrease food intake through regulatory pathways for appetite and satiety. Because these pathways can have other wide-ranging functions, many weight-loss drugs have failed due to psychological or cardiovascular

8

Table of Contents

side-effects. By targeting the fat vasculature directly, rather than indirectly through the CNS, we believe that Adipotide may avoid these negative side effects. Along with our collaborators at MD Anderson, we have focused initially on narrower indications where a rapid reduction of abdominal fat may elicit a near-term benefit in reduction of morbidity and mortality. We believe that this approach may offer a more rapid and cost-effective path to market, if the drug is shown in human clinical trials to be safe and effective.

MD Anderson has filed an Investigational New Drug (IND) application for a first-in-man, Phase I evaluation of Adipotide (also known as Prohibitin TP-01) in obese men with castrate-resistant prostate cancer. White adipose tissue is known to produce hormones that promote prostate cancer growth. The goal of the Phase I clinical trial is to determine the maximum tolerated dose (MTD) and assess the safety of Adipotide in humans. Follow-on studies will determine if decreasing fat can slow the growth of prostate cancer. Responding to a response from the FDA, MD Anderson has submitted additional information, and pending a favorable response the study will begin enrollment soon thereafter. The study is being sponsored and funded by MD Anderson, and Ablaris is not responsible for any of the associated direct costs.

Pipeline

In addition to our lead compound, Adipotide the company is actively pursuing development of novel follow-on compounds in the adipotide-class. Given that the dosing regimen used in preclinical studies (daily subcutaneous injection for 28 days) may not be optimal in the clinical setting, our efforts are focused on altering the pharmacokinetics of the drug to enable other formulations and treatment regimes, such as a sustained release formulation for once-weekly injection or long-term sub-dermal implant. Moreover, because long-term use needs to be anticipated for regulatory approval of a weight-loss drug, our pipeline development is also focused on broadening the therapeutic index of Adipotide , through both enhanced ligand-receptor interactions (increased potency) and altered renal clearance (decreased toxicity). These efforts have already identified several new lead candidates, which have shown similar efficacy to the original compound with reduced renal toxicity. These compounds are covered by pending patents applications and intellectual property developed by Ablaris independently, as well as, with our collaborators at MD Anderson. Efforts will continue to optimize these pipeline candidates in 2012. Ablaris anticipates filing an IND application on a selected lead candidate in 2013. Additional candidates focused on diabetes-related indications are in also in development.

Clinical, Manufacturing and R&D Operations

Good Manufacturing Practices (GMP) production of our lead compound, Adipotide , has been carried out on a multi-gram scale by a leading manufacturer of pharmaceutical-grade peptides. The production and packaging of a sufficient quantity of material for the planned Phase I clinical study is complete. The site for the study and Institutional Review Board (IRB) approval of the clinical protocol are in place. Process development, stability studies and GLP bioanalytical assay development work are completed and ready for scale-up which would allow transfer to a commercial manufacturer if Adipotide progresses into late stage trials. Given the similarity in design of Ablaris pipeline candidates, additional manufacturing process development needs for these compounds are not anticipated to be significant.

To date, our R&D efforts have been carried out by academic laboratories through sponsored research agreements and by contract research organizations (CROs), with management oversight by Arrowhead personnel. This has enabled us to maintain a lean operation with no dedicated laboratory personnel. The initial clinical trial of Adipotide in prostate cancer is being sponsored and will be run entirely by MD Anderson Cancer Center, with no direct management responsibilities for Ablaris. As we move toward clinical testing of Ablaris pipeline compounds in 2012 and 2013, the company may develop a management plan to enable in house sponsorship and oversight of these studies.

Key Personnel

Christopher Anzalone, PhD., is the CEO of Ablaris. James Hulvat, Ph.D. is Director, Research and Development. Ablaris Board of Directors consists of Christopher Anzalone, CEO of Arrowhead, R. Bruce Stewart, Executive Chairman of Arrowhead, Edward Frykman and Charles McKenney. Each director of Ablaris is also a director of Arrowhead.

As of September 30, 2011, Arrowhead owned approximately 64% of the common stock of Ablaris on a primary and fully diluted basis.

Nanotope, Inc.

Overview

Nanotope is a regenerative medicine company developing a suite of nanotechnology-based products customized to regenerate specific tissues: including neuronal, bone and cartilaginous tissues. Arrowhead has an approximately 23% ownership interest in Nanotope.

Nanotope s product candidates are based on a platform technology licensed from Northwestern University. The company continued its successful efforts in 2011 to expand intellectual property protection on compounds of interest, with 20 issued patents and more than 60 pending patent applications in the U.S., E.U., Japan, and select other countries in key markets worldwide.

Table of Contents

Nanotope operates a small research facility at the Illinois Science & Technology Park in Skokie, Illinois, employing three full-time scientists on its R&D efforts. In addition, Nanotope researchers collaborate with multiple academic laboratories and commercial research organizations to advance the company s lead and pipeline compounds.

Nanotope s first lead clinical candidate is directed to regenerating neurons and inhibiting scar tissue formation following traumatic spinal cord injury (SCI). This product is based on a peptide-amphiphile nanofiber scaffold developed by Dr. Samuel Stupp (Materials Science) and Dr. Jack Kessler (Neurology) at Northwestern University. This scaffold is designed to elicit a biological response from neural progenitor cells, suppressing scar-forming astrogliosis and promoting neurite extension and neuron regeneration. Efficacy has been demonstrated in vitro and in vivo in published studies using rodent models of spinal cord injury. Nanotope continues its manufacturing process and formulation development efforts, and selection of optimal candidates from a series of new lead compounds screened in 2011. This screening culminated in additional rodent studies, to be completed in 2012. If these studies are successful, Nanotope anticipates selecting a single SCI candidate to take forward into GLP toxicology studies to support an IND application in late 2012 or 2013.

Nanotope s second lead clinical candidate is directed to restoring cartilage in joints damaged due to injury or osteoarthritis. The company s therapeutic platform consists of a synthetic, fully degradable, customizable gel scaffold that does not involve the use of embryonic stem cells. Instead, the product works with endogenous cells in the patient s bone marrow to spur hyaline-like regeneration. Nanotope and its partners at Northwestern University, Dr. Ramille Shah (Orthopedics) and Dr. Samuel Stupp (Materials Science) have demonstrated the efficacy of the cartilage repair scaffold in a rabbit model. Nanotope s cartilage regeneration technology is currently under a license to Smith & Nephew, a global medical technology company with leadership positions in Orthopedics; including Reconstruction, Trauma and Clinical therapies; Endoscopy; including Sports Medicine; and Advanced Wound Management. This represents Nanotope s first commercial transaction and demonstrates the company s commitment to bring technological innovations in regenerative medicine to the clinical market. Further small animal in vivo studies are ongoing at Nanotope and Northwestern to develop a robust manufacturing process and optimize formulation and stability of these peptide-amphiphile compounds in support of further clinical development. This work is anticipated to continue into 2012.

In addition to these lead therapeutic candidates, Nanotope maintains an active pipeline of peptide-based compounds of interest for other areas. In 2011, Dr. Stupp s laboratory at Northwestern published 11 peer-reviewed papers reporting discovery efforts related to peptide amphiphiles. Two new candidates were in-licensed by Nanotope and will undergo further development efforts in 2012: a VEGF-mimetic peptide amphiphile for ischemic tissue revascularization, and a group of compounds for bone regeneration, where efforts have focused in particular on spinal fusion indications.

Related Party Interests

Nanotope was co-founded by Arrowhead s Chief Executive Officer, Dr. Christopher Anzalone, who owns approximately 14.2% of Nanotope s outstanding voting securities. Dr. Anzalone does not hold options, warrants or any other rights to acquire securities of Nanotope. Dr. Anzalone has the right to appoint a representative to the Board of Directors of Nanotope. Dr. Anzalone currently serves on the Nanotope Board in a seat reserved for Nanotope s CEO and another individual holds the seat designated by Dr. Anzalone. Dr. Anzalone has served as President and Chief Executive Officer of Nanotope since its formation and continues to serve in these capacities. Dr. Anzalone has not received any compensation for his work on behalf of Nanotope since joining the Company on December 1, 2007. Dr. Anzalone has also waived his right to any unpaid compensation accrued for work done on behalf of Nanotope before he joined the Company. Arrowhead allocates a small portion of Dr. Anzalone s salary, as well as a small portion of other administrative and finance personnel costs, to Nanotope.

Leonardo Biosystems, Inc.

Overview

Leonardo is a drug delivery company that employs a novel multi-stage drug delivery mechanism aimed at dramatically increasing targeting efficiency of pharmaceuticals. Arrowhead has an approximately 5% ownership interest in Leonardo. Leonardo s silicon microparticulate technology involves transporting a therapeutic agent past multiple biological barriers using multiple carriers, each optimized for a specific barrier. Leonardo s proprietary primary vehicles are designed to preferentially accumulate at tumor vasculature. Secondary carriers are then released from the primary carriers that are designed to accumulate around tumor cells and release their therapeutic payloads. Animal testing suggests that Leonardo s platform enables significantly increased targeting and also provides sustained release. During 2011, Leonardo received the second tranche of $1.25 million of an overall $2.5 million award from the State of Texas Emerging Technology Fund. Leonardo is currently focused on scaling up a commercializable manufacturing process and broadening the demonstrated areas where the technology delivers value. Arrowhead is interested in increasing its stake in Leonardo if the opportunity arises, Arrowhead has the capital resources, and Leonardo s technology development continues to move forward.

Table of Contents

Related Party Interests

Like Nanotope, Leonardo was co-founded by the Company s Chief Executive Officer, Dr. Christopher Anzalone. Dr. Anzalone owns approximately 16% of the outstanding stock of Leonardo. Dr. Anzalone does not hold options, warrants or any other rights to acquire securities of Leonardo. Dr. Anzalone has the right to appoint a representative to the Board of Directors of Leonardo and Dr. Anzalone currently serves on the Leonardo Board. Dr. Anzalone has served as President and Chief Executive Officer of Leonardo since its formation until February 2010 when a new CEO, Dr. Bruce Given, was hired. Dr. Anzalone has not received any compensation for his work on behalf of Leonardo since joining the Company on December 1, 2007. Dr. Anzalone has also waived his right to any unpaid compensation accrued for work done on behalf of Leonardo before he joined the Company.

Dr. Mauro Ferrari, who joined Arrowhead s Board of Directors in August 2010, is also a co-founder of Leonardo and personally or in family trust owns approximately 23% of the outstanding stock of Leonardo and serves on the Leonardo Board of Directors. Dr. Bruce Given joined Arrowhead as Chief Operating Officer in October 2011. He continues to serve as Leonardo s CEO. While he no longer receives direct compensation from Leonardo, Arrowhead is reimbursed as part of a services agreement, which includes other general and administrative services. Dr. Given was granted 200,000 shares of Leonardo common stock upon joining as CEO in 2010. Arrowhead allocates a small portion of Dr. Anzalone s salary, as well as a small portion of other administrative and finance personnel costs, to Leonardo.

Competition

Arrowhead is focused in the rapidly changing business of developing treatments for human disease through the regulation of gene expression and delivery of proprietary novel cancer therapies. Competition in these fields is intense as other companies are developing therapies similar to our nanoparticle drug delivery systems, and targeting patient populations that are similar to the patient populations that we are targeting. A number of companies are pursuing research and development programs relating to the emerging area of cancer therapies using nanoparticle conjugates and RNA interference. A number of these companies have filed patent applications in these areas. 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. New competitors may arise and we may not be aware of all competitors in this space. A number of our competitors are more established and have greater resources than we do. Furthermore, even if we are successful in developing commercial products, it is possible that competitors will achieve greater market acceptance.

Systemic delivery of siRNA and other oligonucleotide therapeutics has proven critical for the success of all nucleic acid therapeutics. Naturally, multiple firms have recognized the problem of systemic siRNA delivery as a significant opportunity and other firms are developing products in this space. Some of the most significant companies developing siRNA delivery products include Alnylam Pharmaceuticals, Inc., Marina Biotech, Inc., Tacere Therapeutics, Inc., Benitec Limited, OPKO Health, Inc., Silence Therapeutics plc, Quark Pharmaceuticals, Inc., Rosetta Genomics Ltd., Lorus Therapeutics, Inc., Tekmira Pharmaceuticals Corporation, Regulus Therapeutics Inc., and Santaris Pharma A/S, as well as a number of large pharmaceutical companies such as Merck & Co. Inc. and Novartis AG. Additionally, many academic groups are developing and may seek to commercialize siRNA delivery technologies.

Research and Development Expenses

Research and development expenses consist of costs incurred in identifying, developing and testing our product programs. These expenses consist primarily of salaries and related expenses for personnel, license fees, consulting fees, contract research and manufacturing, and the costs of laboratory equipment and facilities. Research and development expense for 2011 was $3.2 million, compared with $0.5 million in 2010.

Government Regulation

Governmental authorities in the U.S. and other countries extensively regulate the research, development, testing, manufacture, labeling, promotion, advertising, distribution and marketing, among other things, of drugs and biologic products. All of our foreseeable product candidates are expected to be regulated as drug products.

In the U.S., the FDA regulates drug products under the Federal Food, Drug and Cosmetic Act (the FDCA), and other laws within the Public Health Service Act. Failure to comply with applicable U.S. requirements, both before and after approval, may subject us to administrative and judicial sanctions, such as a delay in approving or refusal by the FDA to approve pending applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, and/or criminal prosecutions. Before our drug products are marketed they must be approved by the FDA. The steps required before a novel drug product is approved by the FDA include: (1) pre-clinical laboratory, animal, and formulation tests; (2) submission to the

11

Table of Contents

FDA of an Investigational New Drug Application (IND) for human clinical testing, which must become effective before human clinical trials may begin; (3) adequate and well-controlled clinical trials to establish the safety and effectiveness of the product for each indication for which approval is sought; (4) submission to the FDA of a New Drug Application (NDA); (5) satisfactory completion of a FDA inspection of the manufacturing facility or facilities at which the drug product is produced to assess compliance with cGMP; and FDA review and finally (6) approval of an NDA.

Pre-clinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. The results of the pre-clinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND, which must become effective before human clinical trials may begin. An IND will automatically become effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions, such as the conduct of the trials as outlined in the IND. In such a case, the IND sponsor and the FDA must resolve any outstanding FDA concerns or questions before clinical trials can proceed. There can be no assurance that submission of an IND will result in FDA authorization to commence clinical trials. Once an IND is in effect, each clinical trial to be conducted under the IND must be submitted to the FDA, which may or may not allow the trial to proceed.

Clinical trials involve the administration of the investigational drug to human subjects under the supervision of qualified physician-investigators and healthcare personnel. Clinical trials are typically conducted in three defined phases, but the phases may overlap or be combined. Phase 1 usually involves the initial administration of the investigational drug or biologic product to healthy individuals to evaluate its safety, dosage tolerance and pharmacodynamics. Phase 2 usually involves trials in a limited patient population, with the disease or condition for which the test material is being developed, to evaluate dosage tolerance and appropriate dosage; identify possible adverse side effects and safety risks; and preliminarily evaluate the effectiveness of the drug or biologic for specific indications. Phase 3 trials usually further evaluate effectiveness and test further for safety by administering the drug or biologic candidate in its final form in an expanded patient population. Our product development partners, the FDA, or we may suspend clinical trials at any time on various grounds, including any situation where we believe that patients are being exposed to an unacceptable health risk or are obtaining no medical benefit from the test material.

Assuming successful completion of the required clinical testing, the results of the pre-clinical trials and the clinical trials, together with other detailed information, including information on the manufacture and composition of the product, are submitted to the FDA in the form of an NDA requesting approval to market the product for one or more indications. Before approving an application, the FDA will usually inspect the facilities where the product is manufactured, and will not approve the product unless cGMP compliance is satisfactory. If the FDA determines the NDA is not acceptable, the FDA may outline the deficiencies in the NDA and often will request additional information. If the FDA approves the NDA, certain changes to the approved product, such as adding new indications, manufacturing changes or additional labeling claims are subject to further FDA review and approval. The testing and approval process requires substantial time, effort and financial resources, and we cannot be sure that any approval will be granted on a timely basis, if at all. Under the Orphan Drug Act, the FDA may grant orphan drug designation to a drug intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the U.S. and for which there is no reasonable expectation that the cost of developing and making available in the U.S. a drug for this type of disease or condition will be recovered from sales in the U.S. for that drug. Orphan drug designation must be requested before submitting an NDA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other application to market the same drug for the same indication, except in very limited circumstances, for seven years.

In addition, regardless of the type of approval, we and our partners are required to comply with a number of FDA requirements both before and after approval. For example, we are required to report certain adverse reactions and production problems, if any, to the FDA, and to comply with certain requirements concerning advertising and promotion for our products. In addition, quality control and manufacturing procedures must continue to conform to cGMP after approval, and the FDA periodically inspects manufacturing facilities to assess compliance with cGMP. Accordingly, manufacturers must continue to expend time, money and effort in all areas of regulatory compliance, including production and quality control to comply with cGMP. In addition, discovery of problems, such as safety problems, may result in changes in labeling or restrictions on a product manufacturer or NDA holder, including removal of the product from the market.

ITEM 1A. RISK FACTORS

You should carefully consider the risks discussed below and all of the other information contained in this report in evaluating us and an investment in our securities. If any of the following risks and uncertainties should occur, they could have a material adverse effect on our business, financial condition or results of operations. In that case, the trading price of our Common Stock could decline. Additionally, we note that we are a development stage company and we have accrued net losses annually since inception. 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.

Table of Contents

Risks Related to Our Financial Condition

We have a history of net losses, and we expect to continue to incur net losses and man not achieve or maintain profitability.

We have incurred net losses since our inception, including net losses of $3.5 million for the year ended September 30, 2011 and a cumulative net loss since inception of approximately $131.5 million. We expect that our operating losses will continue as we fund our drug development and discovery efforts. To achieve profitability, we must, either directly or through licensing and/or partnering relationships, successfully develop and obtain regulatory approval for a drug candidate and effectively manufacture, market and sell any drugs we successfully develop. Even if we successfully commercialize drug candidates that receive regulatory approval, we may not be able to realize revenues at a level that would allow us to achieve or sustain profitability. Accordingly, we may never generate significant revenue and, even if we do generate significant revenue, we may never achieve profitability.

We have limited cash resources.

Our plan of operations is to provide substantial amounts of development funding and financial support to our subsidiaries over an extended period of time. With the recent acquisition of Roche s RNAi business, including a research facility in Madison, Wisconsin and new employees, our use of cash is expected to substantially increase compared to recent historical periods. We will need to obtain additional capital to further our development efforts, and we intend to seek additional capital by out-licensing technology, securing funded partnerships, conducting one or more private or public offerings of equity securities of the Company or our subsidiaries, or through a combination of one or more of such financing alternatives. However, there can be no assurance that we will be successful in any of these endeavors or, if we are successful, that such transactions will be accomplished on favorable terms. If we are unable to obtain additional capital, we will need to curtail our operations in order to preserve working capital, which could materially harm our business and our ability to achieve cash flow in the future, including delaying or reducing implementation of certain aspects of our plan of operations. Even if we are successful in obtaining additional capital, because we and each subsidiary are separate entities, it could be difficult or impossible to allocate funds in a way that meets the needs of all entities. Although we anticipate that the Company will be able to satisfy the cash requirements of its operations through at least the next twelve months with current cash resources, we may be unable to obtain long-term funding and our near-term expenses could be greater than projected.

The current financial market conditions may exacerbate certain risks affecting our business.

We do not yet generate substantial revenue, and our operations and research and development activities have been primarily funded to date through the sale of Company securities and securities of our Subsidiaries. The global financial markets are volatile and those market conditions, as well as possible concerns over the value of the U.S. dollar denominated investments, may impair our ability to raise the capital we require. If we are unable to secure additional cash resources from the sale of securities or other sources, it could become necessary to slow or suspend development efforts. In addition, we may have to reduce expenses, which could impair our ability to manage our business. Even if investment capital is available to us, the terms may be onerous. If outside capital is invested directly into a subsidiary and Arrowhead does not have the funds to make a pro rata investment, our ownership interest could be diluted. The sale of additional Arrowhead stock could result in significant dilution to stockholders.

The potential monetization of our Subsidiaries through an ownership position might not occur in an orderly manner. Exit opportunities could include an initial public offering (IPO) for the subsidiary or acquisition of the subsidiary by another company. During the recent economic recession, companies have been adopting conservative acquisition strategies and, even if there is interest, we may not be able to sell our Subsidiaries on terms that are attractive to us. These factors could reduce the realizable return on our investment if we are able to sell a subsidiary. Additionally, the market for IPOs continues to be unpredictable, which limits public exit opportunities for our Subsidiaries.

Because we have not generated significant revenues to cover our operating expenses, we are dependent on raising additional capital from investors or lenders.

To date, we have only generated a small amount of revenue. Given our strategy of financing new and unproven technology research, there can be no assurance we will ever generate significant revenue. Our revenue-producing opportunities depend on liquidity events within our Subsidiaries, such as a sale of the Subsidiary, licensing transaction or initial public offering. We cannot be certain that we will be able to create a liquidity event for any of our Subsidiaries and, even if we are able to, we cannot be certain of the timing or the potential proceeds to Arrowhead as a stockholder. Accordingly, our revenue prospects are uncertain and we must plan to finance our operations through the sales of equity securities or debt financing. If we are unable to continue raising operating capital from these sources, we may be forced to curtail or cease our operations.

13

Table of Contents

We will need to achieve commercial acceptance of our applications to generate revenues and achieve profitability.

Even if our research and development efforts yield technologically feasible applications, we may not successfully develop commercial products which would take years to study in human clinical trials prior to regulatory approval, and, even if successfully developed, we may not do so on a timely basis. During this development period, superior competitive technologies may be introduced which could diminish or extinguish the potential commercial uses for our drug candidates. Additionally, the degree to which patients and consumers will adopt any product we develop is uncertain. We cannot predict whether significant commercial market acceptance for our products, if approved, will ever develop, and we cannot reliably estimate the projected size of any such potential market. 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 the medical establishment and patients, or if the associated products do not achieve wide market acceptance, our business will be materially and adversely affected.

We have debt on our consolidated balance sheet through our subsidiary, Calando, which could have negative consequences if we were unable to repay the principal or interest due.

Calando has a $500,000 unsecured convertible promissory note outstanding. The note bears 10% interest accrued annually, and matures in November 2013. The note is payable at two times face value at maturity and upon the occurrence of certain events, including, the license of Calando s siRNA delivery system. If Calando is unable to meet its obligations to the bearer of the note, Arrowhead may not be in a position to lend Calando sufficient cash to pay such demand note. Unless other sources of financing become available, this could result in Calando s insolvency.

Our Subsidiaries are party 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 are party into exclusive, long-term license agreements with 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 in some cases related to the commercialization of the licensed technology. We may not be able to successfully incorporate these technologies into marketable products or, if we do, whether sales 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.

Risks Related to Our Company

Drug development is time consuming, expensive and risky.

We are focused on technology related to new and improved pharmaceutical candidates. 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 may be unacceptable, even though preclinical trial results were promising;
- Inefficacy and/or harmful side effects in humans or animals;
- The necessary regulatory bodies, such as the U.S. Food and Drug Administration, may not approve our potential product for the intended use; and
- Manufacturing and distribution may be uneconomical.

For example, the positive pre-clinical results studying Adipotide in animals may not be replicated in human clinical studies or that this drug candidate may be found to be unsafe in humans. Additionally, 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. Clinical trials can take years to complete, including the process of study design, clinical site selection and the enrollment of patients. As a result, we can experience significant delays in completing clinical studies, which can increase the cost of developing a drug candidate. If our drug candidates are not successful in human clinical trials, we may be forced to curtail or abandon certain development programs and if we experience significant delays in commencing or completing our clinical studies, we could suffer from significant cost overruns, which could negatively affect our capital resources and our ability to complete these studies.

Table of Contents

We may be unable to attract revenue-generating collaborations with other pharmaceutical and biotech companies to advance our drug candidates.

Our business strategy includes collaborations with other pharmaceutical and biotech companies to provide funding and therapeutic siRNA candidates to which we can apply our various siRNA delivery technologies. We may not be able to attract such partners, and even if we are able to enter into such partnerships, the terms may be less favorable than anticipated. Further, entering into partnership agreements may limit our commercialization options and/or require us to share revenues and profits with our partners.

We may lose a considerable amount of control over our intellectual property and may not receive anticipated revenues in strategic transactions involving our Subsidiaries, particularly where the consideration is contingent on the achievement of development or sales milestones.

Our business model has been to develop new technologies and to exploit the intellectual property created through the research and development process to develop commercially successful products. Calando has licensed a portion of its technology to Cerulean Pharma, Inc. and we intend to pursue licensing arrangements with other companies. A significant portion of the potential value from these licenses is tied to the achievement of the development and sales milestones, which we cannot control. Similarly, the majority of the consideration, up to $140 million, potentially payable by Wisepower in connection with our sale of Unidym is tied to the achievement of commercialization milestones, over which we cannot exercise control. Although Wisepower and Cerulean are required to use certain minimum efforts to achieve the post-closing milestones, we cannot control whether they actually achieve these milestones. If the acquirers fail to achieve performance milestones, we may not receive a significant portion of the total value of any sale, license or other strategic transaction.

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

Much of the Company research and development efforts involve nanotechnology and RNAi, which are largely unproven technologies. Our scientists and engineers are working on developing technology in various stages. However, such technology s commercial feasibility and acceptance are unknown. Scientific research and development requires significant amounts of capital and takes a long time to reach commercial viability, if at all. To date, our research and development projects have not produced commercially viable applications, and may never do so. During the research and development process, we may experience technological barriers that we may be unable to overcome. Because of these uncertainties, it is possible that none of our potential applications will be successfully developed. If we are 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 establish additional relationships with strategic and development partners to fully develop and market our products.

We do not possess all of the resources necessary to develop and commercialize products that may result from our technologies on a mass scale. Unless we expand our product development capacity and enhance our internal marketing capability, we will need to make appropriate arrangements with strategic partners to develop and commercialize current and future products. If we do not find appropriate partners, or if our existing arrangements or future agreements are not successful, our ability to develop and commercialize products could be adversely affected. Even if we are 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 we pursue our commercialization strategy through collaboration, there are a variety of technical, business and legal risks, including:

A development partner would likely gain access to our proprietary information, potentially enabling the partner to develop products without us or design around our intellectual property;

We 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 events or other related events not foreseen by us could impair our ability to generate revenues and harm our business and financial condition.

We may not be able to effectively secure first-tier technologies when competing against other investors.

Our success may require that we acquire new or complimentary technologies. However, we compete with a substantial number of other companies that may also compete for technologies we desire. In addition, many venture capital firms and other institutional investors, as well as other pharmaceutical and biotech companies, invest in companies seeking to commercialize various types of emerging technologies. Many of these companies have greater financial, scientific and commercial resources than us. Therefore, we may not be able to secure the technologies we desire. Furthermore, should any commercial undertaking by us prove to be successful, there can be no assurance competitors with greater financial resources will not offer competitive products and/or technologies.

Table of Contents

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. 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. In addition, due to the continued tightening of global credit markets, there may be a disruption or delay in the performance of our third-party contractors, suppliers or collaborators. If such third parties are unable to satisfy their commitments to us, our business would be adversely affected. Therefore, it is possible that our business plans 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 must overcome the many obstacles associated with integrating and operating varying business ventures to succeed.

Our 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.

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.

Our success depends on the attraction and retention of senior management and scientists with relevant expertise.

Our future success will depend to a significant extent on the continued services of our key employees, including Dr. Anzalone, our President and Chief Executive Officer, Kenneth Myszkowski, our Chief Financial Officer and Bruce Given, our Chief Operating Officer. We do not maintain key man life insurance for any of our executives. Our ability to execute our strategy also will depend on our ability to continue to attract and retain qualified scientists 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. We may need to terminate additional employees, including senior management and technical employees, or such employees may seek other employment which may result in the loss of valuable know-how and development efforts could be negatively affected.

Members of our senior management team and Board may have a conflict of interest in also serving as officers and/or directors of our Subsidiaries.

While we expect that our officers and directors who also serve as officers and/or directors of our Subsidiaries will comply with their fiduciary duties owed to our stockholders, they may have conflicting fiduciary obligations to our stockholders and the minority stockholders of our

Subsidiaries. Specifically, Dr. Anzalone, our President and CEO, is the founder, CEO and a board member of Nanotope, a regenerative medicine company in which the Company owns a 23% interest. Further, Dr. Anzalone as well as Dr. Mauro Ferrari, an Arrowhead board member, are board members of Leonardo, a drug delivery company in which Arrowhead owns a 5% interest. Dr. Anzalone owns a noncontrolling interest in the stock of Nanotope. Drs. Anzalone and Ferrari own a noncontrolling interest in Leonardo. Douglass Given, a member of our board of directors, is the brother of Bruce Given. To the extent that any of our directors choose to recuse themselves from particular Board actions to avoid a conflict of interest, the other members of our Board of Directors will have a greater influence on such decisions.

We face uncertainty related to healthcare reform, pricing and reimbursement, which could reduce our revenue.

In the United States, President Obama signed in March 2010 the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act (collectively, PPACA), which is expected to substantially change the way health care is financed by both governmental and private payers. PPACA provides for changes to extend medical benefits to those

Table of Contents

who currently lack insurance coverage, encourages improvements in the quality of health care items and services, and significantly impacts the U.S. pharmaceutical industry in a number of ways, further listed below. By extending coverage to a larger population, PPACA may substantially change the structure of the health insurance system and the methodology for reimbursing medical services, drugs and devices. These structural changes, as well as other changes that may be made as part of deficit and debt reduction efforts in Congress, could entail modifications to the existing system of private payers and government programs, such as Medicare, Medicaid and State Children s Health Insurance Program, as well as the creation of a government-sponsored healthcare insurance source, or some combination of both. Such restructuring of the coverage of medical care in the United States could impact the extent of reimbursement for prescribed drugs, including our product candidates, biopharmaceuticals, and medical devices. Some of the specific PPACA provisions, among other things:

- Establish annual, non-deductible fees on any entity that manufactures or imports certain branded prescription drugs and biologics, beginning in 2011;
- Increase minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program;
- Extend manufacturers Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- Establish a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in and conduct comparative clinical effectiveness research;
- Require manufacturers to participate in a coverage gap discount program, under which they must agree to offer 50 percent point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer s outpatient drugs to be covered under Medicare Part D, beginning in 2011; and
- Increase the number of entities eligible for discounts under the Public Health Service pharmaceutical pricing program, effective January 2010.

If future reimbursement for approved product candidates, if any, is substantially less than we project, or rebate obligations associated with them are substantially increased, our business could be materially and adversely impacted.

Sales of any approved drug candidate will depend in part on the availability of coverage and reimbursement from third-party payers such as government insurance programs, including Medicare and Medicaid, private health insurers, health maintenance organizations and other health care related organizations. Accordingly, coverage and reimbursement may be uncertain. Adoption of any drug candidate by the medical community may be limited if third-party payers will not offer coverage. Cost control initiatives may decrease coverage and payment levels for any new drug and, in turn, the price that we will be able to charge. We are unable to predict all changes to the coverage or reimbursement methodologies that will be applied by private or government payers. Any denial of private or government payer coverage or inadequate reimbursement could harm our business and reduce our revenue.

In addition, both the federal and state governments in the United States and foreign governments continue to propose and pass new legislation affecting coverage and reimbursement policies, which are designed to contain or reduce the cost of health care, as well as hold public hearings on these matters, which has resulted in certain private companies dropping the prices of their drugs. Further federal and state proposals and healthcare reforms are likely, which could limit the prices that can be charged for the product candidates that we develop and may further limit our commercial opportunity. There may be future changes that result in reductions in current coverage and reimbursement levels for our product candidates, if approved and commercialized, and we cannot predict the scope of any future changes or the impact that those changes would have on our operations.

There may be a difference in the investment valuations that we used when making initial and subsequent investments in our Subsidiaries and minority investments and actual market values.

Our investments in our Subsidiaries and noncontrolling interests were the result of negotiation with subsidiary management and equity holders, and the investment valuations may not always have been independently verified. Traditional methods used by independent valuation analysts include a discounted cash flow analysis and a comparable company analysis. We have not generated a positive cash flow to date and do not expect to generate significant cash flow in the near future. Additionally, we believe that few comparable public companies exist to provide meaningful valuation comparisons. Accordingly, we have not always sought independent valuation analysis in connection with our investments and may have invested in our various holdings at higher or lower valuations than an independent source would have recommended. There may be no correlation between the investment valuations that we used over the years for our investments and the actual market values. If we should eventually sell all or a part of any of our consolidated business or that of a subsidiary, the ultimate sale price may be for a value substantially different than previously determined by us, which could materially and adversely impair the value of our Common Stock.

Table of Contents

Risks Related to Our Intellectual Property

Our ability to protect our patents and other proprietary rights is uncertain, exposing us to the possible loss of competitive advantage.

Our Subsidiaries have licensed rights to pending patents and have filed and will continue to file patent applications. The researchers sponsored by us may also file patent applications that we choose 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 our technology may prove to infringe upon patents or rights owned by others. Thus, the patents held by or licensed to us may not afford us any meaningful competitive advantage. If we are unable to derive value from our licensed or owned intellectual property, the value of your investment may decline.

Our ability to develop and commercialize products will depend on our ability to enforce our intellectual property rights and operate without infringing the proprietary rights of third parties.

Our ability to develop and commercialize products based on our patent portfolios will depend, in part, on our ability to enforce those patents and operate without infringing the proprietary rights of third parties. We cannot be certain that any patents that may issue from patent applications owned or licensed by us will provide sufficient protection to conduct our respective businesses as presently conducted or as proposed to be conducted, or that we will remain free from infringement claims by third parties. In particular, there can be no assurance that we will be successful enforcing our rights in the intellectual property that we acquired in the Roche RNAi acquisition.

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

Because the nanotechnology intellectual property landscape is rapidly evolving and interdisciplinary, it is difficult to conclusively assess our freedom to operate without infringing on third party rights. However, we are currently aware of certain patent rights held by third parties that, if found to be valid and enforceable, could be alleged to render one or more of our business lines infringing. If a claim should be brought and is successful, we may be required to pay substantial damages, be forced to abandon any affected business lines and/or seek a license from the patent holder. In addition, any patent infringement claims brought against us, whether or not successful, may cause us to incur significant expenses and divert the attention of our management and key personnel from other business concerns. These could negatively affect our results of operations and prospects. We cannot be certain that patents owned or licensed by us or our Subsidiaries will not be challenged by others.

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.

Our technology licensed from various third parties may be subject to government rights and retained rights of the originating research institutions.

We license technology from Caltech, 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.

Table of Contents

Risks Related to Regulation of Our Products

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

Our operations, including our research and development and our 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, we cannot be assured that the Company or our 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.

Risks Related to our Stock

Stockholder equity interest may be substantially diluted in any additional financing.

Our certificate of incorporation authorizes the issuance of 145,000,000 shares of Common Stock and 5,000,000 shares of Preferred Stock, on such terms and at such prices as our Board of Directors may determine. Adjusted for the 1 for 10 stock split that was implemented on November 17, 2011, as of September 30, 2011, we had 8,642,286 shares of Common Stock issued and outstanding. The issuance of additional securities in financing transactions by us or through the exercise of options or warrants will dilute the equity interests of our 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.

Our Common Stock price has fluctuated significantly over the last several years and may continue to do so in the future, without regard to our results of operations and prospects.

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 may not generate substantial revenue from the license or sale of our technology 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;

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 our technology;

Announcements regarding developments in the nanotechnology field in general;

Market perception and/or announcements regarding the field of siRNA (small interfering, RNAs);

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

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 could result in the loss of all or part of your investment. Additionally, 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.

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

Although our Common Stock is listed for trading on the NASDAQ Capital Market, historically our securities have been relatively thinly traded. Investor trading patterns could serve to exacerbate the volatility of the price of the stock. For example, mandatory sales of our Common Stock by institutional holders could be triggered if an investment in our Common Stock no longer satisfies their investment standards and guidelines. Accordingly, it may be difficult to sell shares of our Common Stock quickly without significantly depressing the value of the stock. Unless we are successful in developing continued investor interest in our stock, sales of our stock could continue to result in major fluctuations in the price of the stock.

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

The trading market for our Common Stock can 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 the Company, the trading price of our stock could be negatively impacted. In

Table of Contents

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 may decline. If one or more of these analysts cease to cover our industry or us or fails to publish reports about the 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 our 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 our 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 their stock in a short period of time, the price of our stock may decline.

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

We will not distribute cash to our stockholders unless and until we can develop sufficient funds from operations to meet our ongoing needs and implement our business plan. The time frame for that is unpredictable and investors should not expect dividends 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 the 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, our Board of Directors, without further action by our 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.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

At September 30, 2011, we had one outstanding lease for our corporate headquarters, which is located in Pasadena, California. The Company does not own any real property. The following table summarizes the company s leased facilities:

	Office Space	Monthly Rent	Lease Commencement	Lease Term
Pasadena, CA	3,000 sq ft	$ 8,000	May 1, 2011	Month to Month

On October 21, 2011, Arrowhead acquired the RNAi operations from Roche, including its research facility in Madison, Wisconsin. The following table summarizes the information on that leased facility:

	Lab/Office Space	Monthly Rent	Lease Commencement	Lease Term
Madison, WI	24,000 sq ft	$ 56,500	February 16, 2009	10 Years

ITEM 3. LEGAL PROCEEDINGS

None.

ITEM 4. [REMOVED AND RESERVED]

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 sales prices for a share of the Company s Common Stock during each period indicated. On November 17, 2011, the Company effected a 1 for 10 reverse stock split. The share prices in the table below are shown on a post-split basis.

	Fiscal Year Ended September 30,			
	2011		2010	
	High	Low	High	Low
1st Quarter	$ 11.00	$ 8.30	$ 7.00	$ 5.10
2nd Quarter	10.00	6.00	11.70	5.10
3rd Quarter	7.00	4.30	18.50	10.30
4th Quarter	5.90	3.70	11.70	8.50

Shares Outstanding

At December 15, 2011, an aggregate of 10,525,941 shares of the Company s Common Stock were issued and outstanding, and were owned by 280 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.

Securities Authorized for Issuance Under the Equity Compensation Plans

The disclosure required under this item related to equity compensation plans is incorporated by reference from Item 12, under the caption Equity Compensation Plan Information in this Annual Report on Form 10-K.

Sales of Unregistered Securities

All information under this Item has been previously reported on our Current Reports on Form 8-K.

Repurchases of Equity Securities

We did not repurchase any shares of our Common Stock during fiscal 2011 or fiscal 2010.

ITEM 6. SELECTED FINANCIAL DATA

As a Smaller Reporting Company, we are not required to provide this information.

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

Description of Business

Unless otherwise noted, (1) the term Arrowhead refers to Arrowhead Research Corporation, a Delaware corporation, (2) the terms the Company, we, us, and our, refer to the ongoing business operations of Arrowhead and its Subsidiaries, whether conducted through Arrowhead or a subsidiary of Arrowhead, (3) the term Subsidiaries refers collectively to Arrowhead Madison Inc. (Madison) , Calando Pharmaceuticals, Inc. (Calando), , Ablaris Therapeutics, Inc. (Ablaris), Agonn Systems, Inc. (Agonn), and Tego Biosciences Corporation (Tego) as well as our former subsidiary, Unidym, Inc. (Unidym), which was divested in January 2011, (4) the term Minority Investments refers collectively to Nanotope, Inc. (Nanotope) and Leonardo Biosystems, Inc. (Leonardo) in which the company holds a less than majority ownership position, and (5) the term Common Stock refers to Arrowhead s Common Stock and the term stockholder(s) refers to the holders of Arrowhead Common Stock.

Table of Contents

Overview

Arrowhead Research Corporation is a nanomedicine company developing innovative therapies at the interface of biology and nanoengineering to cure disease and improve human health. Arrowhead has one of the most advanced and broadest technology platforms for therapeutics based on RNA interference (RNAi), including access to five different RNAi delivery systems and the three primary small interfering RNA (siRNA) structures in commercial development for RNAi therapeutics. This broad technology platform enables optimization of siRNA therapeutic candidates for delivery based on siRNA chemistry, tissue type, disease state, and target [gene] and siRNA type and chemistry on a target-by-target basis. Arrowhead is leveraging its in house R&D expertise and capabilities, as well as a broad intellectual property portfolio for RNAi therapeutics, to attract development partnerships with other pharmaceutical and biotech companies committed to bringing RNAi therapeutics to market, as well as continuing the preclinical and clinical development its own clinical candidates. Arrowhead s non-RNAi development programs include a unique therapeutic candidate that shows promise for the treatment of obesity and advanced bioactive materials for the regeneration of injured tissues.

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 of 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 of an arrangement exists, title has passed and delivery has occurred, a price is fixed and determinable, and collection is reasonably assured.

We may generate revenue from technology licenses, collaborative research and development arrangements, research grants and product sales. Revenue under technology licenses and collaborative agreements typically 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 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 up-front license fees, milestones and product royalties are 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.

Impairment of Long-lived Assets

We review 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 impairment is indicated, recoverability is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset.

Stock-Based Compensation

We recognize stock-based compensation expense based on the grant date fair value using the Black-Scholes options pricing model, which requires us to make assumptions regarding certain variables including the risk-free interest rate, expected stock price volatility, and the expected life of the award. The assumptions used in calculating stock-based compensation expense represent management s best estimates, but these estimates involve inherent uncertainties, and if factors change or the Company used different assumptions, its stock-based compensation expense could be materially different in the future.

Derivative Assets and Liabilities

We account for warrants and other derivative financial instruments as either equity or assets/liabilities based upon the characteristics and provisions of each instrument. Warrants classified as equity are recorded as additional paid-in capital on our consolidated balance sheet and no further adjustments to their valuation are made. Some of our warrants were determined to be ineligible for equity classification because of provisions that may result in an adjustment to their exercise price. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as assets or liabilities are recorded on our consolidated balance sheet at their fair value on the date of issuance and are revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. We estimate the fair value of these assets/liabilities using option pricing models that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for expected volatility, expected life and risk-free interest rate. Changes in the assumptions used could have a material impact on the resulting fair value. The primary input affecting the value of our derivatives liabilities is the Company s stock price. For example, a 50% change in the value of the Company s stock price would affect the value of the derivative liability by approximately $0.5 million to $0.6 million, depending on other inputs.

Table of Contents

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 is recorded. Licensed or internally developed patents are amortized over the life of the patent. Purchased patents are amortized over three years.

Reverse Stock Split

As of November 17, 2011, the Company effected a 1 for 10 reverse stock split (the Reverse Stock Split). As a result of the reverse stock split, each ten shares of the Company s Common Stock issued and outstanding immediately prior to the reverse split was combined into one share of Common Stock. Also, as a result of the Reverse Stock Split, the per share exercise price of, and the number of shares of Common Stock underlying outstanding Company stock options, warrants, Series A Preferred and any Common Stock based equity grants outstanding immediately prior to the reverse stock split was proportionally adjusted, based on the one-for-ten split ratio, in accordance with the terms of such options, warrants or other Common Stock based equity grants as the case may be. No fractional shares of Common Stock were issued in connection with the reverse split. Stockholders will instead receive cash payment in lieu of any fractional shares. Unless otherwise noted, all share and per share amounts in these have been retrospectively adjusted to reflect the reverse stock split.

Results of Operations

The Company had a net loss of $3.5 million for the year ended September 30, 2011, compared to a net loss of $7.0 million for the year ended September 30, 2010, a decrease of $3.5 million.

The change in the net loss was the result of a number of factors. Arrowhead divested Unidym in January 2011, accordingly, losses incurred at Unidym decreased from fiscal 2010 to fiscal 2011. During fiscal 2010, losses from Unidym were $3 million, compared to income in fiscal 2011 of $1.4 million, resulting in a change of $4.4 million. The income from discontinued operations in fiscal 2011 was driven by revenue of $4.7 million primarily from a license agreement with Samsung prior to the disposal of Unidym. Additionally, during fiscal 2011, Arrowhead recognized a gain from the disposal of Unidym of $3.9 million. These variances were somewhat offset by the inclusion of Ablaris, which was acquired in December 2010, including a one-time license fee of $2 million and other Ablaris operating expenses of approximately $0.6 million. Other variances included higher general and administrative expenses of $1.4 million, primarily due to costs related to the acquisition of Roche Madison which was completed in October 2011. Other income/expense was unfavorable by $0.5 million primarily due to the change in the value of derivative liabilities as compared to the prior year.

Revenues

The Company generated revenue of $296,000 during the year ended September 30, 2011. Revenues were not recognized in the year ended September 30, 2010, as revenues previously recognized by Unidym are classified as a part of discontinued operations. The revenue in 2011 was primarily related to a qualifying therapeutic discovery grant received by Calando.

Operating Expenses

The analysis below details the operating expenses and discusses the expenditures of the Company within the major expense categories. For purposes of comparison, the amounts for the years ended September 30, 2011 and 2010 are shown in the table below.

Salary & Wage Expenses - Fiscal 2011 compared to Fiscal 2010

Arrowhead employs management, administrative and technical staff. Salary and wage expense consists of salary, benefits, and non-cash charges related to equity-based compensation from the issuance of stock options. Salary and benefits are allocated to two major categories: general and administrative compensation expense and research and development compensation expense depending on the primary activities of each employee. The following table provides details of salary and related expenses for fiscal 2011 and fiscal 2010.

Table of Contents

(in thousands)

	Twelve Months Ended September 30, 2011	% of Expense Category	Twelve Months Ended September 30, 2010	% of Expense Category	Increase (Decrease) $	Increase (Decrease) %
G&A compensation-related	$ 1,143	81%	$ 910	79%	$ 233	26%
R&D compensation-related	265	19%	236	21%	29	12%
Total	$ 1,408	100%	$ 1,146	100%	$ 262	23%

During the year ended September 30, 2011, G&A compensation expense increased $233,000. The prior year included a nonrecurring charge of certain general and administrative expenses to the Company s minority investment companies, Nanotope and Leonardo, for which the Company provides management services. This charge served to decrease the Company s consolidated salary costs during the year ended September 30, 2010. Arrowhead s management headcount has remained relatively constant over the past year. R&D compensation related costs remained relatively constant during the year and on a year-to-date basis, as compared to the prior periods. With the addition of personnel in Arrowhead s newly acquired Madison facility, salary and wage expenses are expected to increase sharply in fiscal 2012.

General & Administrative Expenses Fiscal 2011 compared to Fiscal 2010

The following table provides details of our general and administrative expenses for the fiscal years 2011 and 2010.

(in thousands)

	Twelve Months Ended September 30, 2011	% of Expense Category	Twelve Months Ended September 30, 2010	% of Expense Category	Increase (Decrease) $	Increase (Decrease) %
Professional/outside services	$ 2,384	63%	$ 1,199	49%	$ 1,185	99%
Patent expense	604	16%	352	14%	252	72%
Facilities and related	168	4%	278	11%	(110)	-40%
Travel	201	5%	161	6%	40	25%
Business insurance	194	5%	182	7%	12	7%
Depreciation	26	1%	35	1%	(9)	-26%
Communication and technology	96	3%	105	4%	(9)	-9%
Office expenses	54	1%	65	3%	(11)	-17%
Other	95	2%	114	5%	(19)	-17%
Total	$ 3,822	100%	$ 2,491	100%	$ 1,331	53%

Professional/outside services include legal, accounting and other outside services retained by Arrowhead and its subsidiaries. All periods include normally occurring legal and accounting expenses related to SEC compliance and other corporate matters. Professional/outside services expense was $2,384,000 during the year ended September 30, 2011, compared to $1,199,000 in the comparable prior period. The increase in professional fees primarily relates to the legal costs, consulting services and other outside costs associated to the acquisition of Roche s RNAi assets and facility in Madison, Wisconsin.

Patent expense was $604,000 during the year ended September 30, 2011, compared to $352,000 in the comparable prior period. During the year ended September 30, 2011, patent expense was primarily related to fees paid to patent counsel for the maintenance of Calando s intellectual properties portfolio. The increase is primarily due to increased costs related to foreign patent filings. The Company expects to continue to invest in patent protection as the Company extends and maintains protection for its current portfolios and files new patent applications as its product applications are improved.

Facilities and related expense within general and administrative expenses primarily relate to rental costs associated with the Company s headquarters in Pasadena, California. Facilities expense decreased due to reduction in the company s rental expense because its lease for its corporate headquarters expired. Temporarily, the Company is occupying a smaller and less expensive office space, and is in negotiations for a new corporate office facility.

Travel expense was $201,000 during the year ended September 30, 2011, compared to $161,000 in the comparable prior period. Travel expense includes expenses related to travel by Company personnel for operational business meetings at other company locations, and for other business initiatives and collaborations throughout the world with other companies, and for marketing, investor relations, fund raising and public relations purposes. The increase in travel relates primarily to the travel costs associated with due diligence related to the acquisition of Roche s RNAi assets and facility in Madison, Wisconsin.

Table of Contents

Business insurance expense was $194,000 during the year ended September 30, 2011, compared to $182,000 in the comparable prior period. During the prior year, the company received a refund of $55,000 for its insurance carrier related to clinical trial program premium coverage after an insurance audit. The company also experienced rate decreases in its Directors and Officers insurance coverage.

Depreciation expense was $26,000 during the year ended September 30, 2011, compared to $35,000 in the comparable prior period. The decrease in depreciation expense is related primarily to the assets that were fully depreciated during the year.

Communication and technology expense was $96,000 during the year ended September 30, 2011, compared to $105,000 in the comparable prior period. The decrease in communication and technology cost is due to lower technology consulting expense and lower telephone and software maintenance cost at Arrowhead and Calando.

Office expense was $54,000 during the year ended September 30, 2011, compared to $65,000 in the comparable prior period. The decrease in office expense primarily relates to the reduction of office costs after the company moved to a smaller temporary facility that provides certain amenities as part of the lease.

Research and Development Expenses Fiscal 2011 compared to Fiscal 2010

Most of Arrowhead s R&D expenses for fiscal 2011 and fiscal 2010 were related to research and development activities by Arrowhead s Subsidiaries. The following table provides details of R&D expenses for fiscal 2011 and 2010:

(in thousands)

	Twelve Months Ended September 30, 2011	% of Expense Category	Twelve Months Ended September 30, 2010	% of Expense Category	Increase (Decrease) $	Increase (Decrease) %
Outside labs & contract services	$ 776	24%	$ 199	38%	$ 577	290%
Consulting	440	13%	326	61%	114	35%
License, royalty & milestones	2,045	62%	(2)	0%	2,047	NM
Other research expenses	17	1%	7	1%	10	143%
Total	$ 3,278	100%	$ 530	100%	$ 2,748	518%

Outside lab and services expense was $776,000 during the year ended September 30, 2011, compared to $199,000 in the comparable prior period. The majority of the increase was related to Calando. Outside lab services and contract services were higher in fiscal 2011 to support the clinical trial taking place. In the previous year, the clinical trial had lower enrollment and thus incurred lower cost. In addition, the company experienced outside costs related to its new subsidiary, Ablaris, which was not operating in the prior year.

Consulting expense was $440,000 during the year ended September 30, 2011, compared to $326,000 in the comparable prior period. The primary reason for the increase in consulting expense is due to technical consulting costs related to the company s new subsidiary, Ablaris Therapeutics, Inc. and the costs associated with new scientific advisory board members.

License, royalty & milestone expense was $2,045,000 during the year ended September 30, 2011, compared to ($2,000) in the comparable prior period. The licensing fees, royalty and milestones expenses during the year reflect to $2 million in licensing fees paid to University of Texas M.D. Anderson Cancer Center related to a Patent and Technology License Agreement entered into in December 2010, and related to Ablaris.

Other Income / Expense

Other income decreased from $1,521,000 in fiscal 2010 to $1,045,000 in fiscal 2011. The main reason for the decrease in other income was due to the change in the value of derivative liabilities, which contributed $1.8 million to other income in fiscal 2010, compared to $1.1 million in fiscal 2011. The change in the value of the derivative is related to warrants issued in June 2010, that contain antidilution protection (see Note 11 Fair Value Measurements & Derivative Instruments), somewhat offset by the change in the value of the derivative asset related to a convertible bond, the value of which is affected by the price of the underlying equity security. Also contributing to other income/expense was the change in value of marketable securities, which decreased in value by $261,000 during the year. The Company also recorded other income of $250,000 in

2011 related to an insurance claim paid during the year.

Table of Contents

Liquidity and Cash Resources

As a development stage company, Arrowhead has historically financed its operations through the sale of securities of Arrowhead and its Subsidiaries. Research and development activities have required significant capital investment since the Company s inception, and are expected to continue to require significant cash investment in fiscal 2012.

At September 30, 2011, the Company had cash on hand of approximately $7.5 million. Cash and cash equivalents increased during fiscal 2011 by $660,000 to $7.5 million at September 30, 2011 from $6.8 million at September 30, 2010.

Cash used in operating activities was $7.7 million, which represents the on-going expenses of Arrowhead and its Subsidiaries. Cash outlays were primarily composed of the following: salary and payroll-related costs were $1.9 million, general and administrative costs were $3.2 million, research and development costs were $2.8 million. $0.7 million was used to fund operating expenses at Arrowhead s two minority interest companies, Nanotope and Leonardo. It is expected that these funds will be repaid, or converted to equity in the future. Cash expenses were partially offset by cash received from revenues of $0.3 million, proceeds from an insurance claim of $0.3 million, and other cash flow of $0.3 million.

Cash used in investing activities was $0.2 million, primarily related to cash received from the sale of investment of $1.5 million, offset by $1.7 million of cash which was divested with the sale of Unidym.

Cash provided by financing activities of $6.2 million includes $1.7 million received from outside investors for an investment in Ablaris, $4.6 million equity investment from the sale of Common Stock, and $0.1 million from the exercise of stock options.

Cash provided from discontinued operations was $2.3 million, representing the cash flow from Unidym, which was sold in January 2011.

On October 21, 2011, Arrowhead completed the acquisition of certain RNAi assets from Hoffmann-La Roche Inc. and F Hoffmann-La Roche Ltd., including intellectual property and a research and development facility based in Madison, Wisconsin. At the time of the acquisition, the facility had 41 employees. Due to the costs associated with the facility, including personnel costs, rent, research and development expenses, and other costs, it is expected that cash expenses will increase significantly in 2012 and beyond as the Company accelerates its preclinical and clinical development efforts.

Recent Financing Activity:

On September 30, 2011, the Company entered into Subscription Agreements with certain accredited investors pursuant to which the Company agreed to issue and sell an aggregate of 1,458,917 shares of Common Stock, $0.001 par value per share, at a purchase price of $3.80 per share. The aggregate purchase price paid by the Purchasers for the shares of Common Stock was $5,543,885, which includes $193,885 of fees paid in stock. The closing of the sale of the shares occurred on September 30, 2011. Additionally, on October 5, 2011, a second closing under the same terms occurred resulting in the issuance of 138,157 additional shares of Common Stock for proceeds of $525,000.

On October 20, 2011, the Company and Lincoln Park Capital Fund, LLC, an Illinois limited liability company (LPC) entered into a $15 million purchase agreement (the Purchase Agreement), together with a registration rights agreement, whereby LPC agreed to purchase up to $15 million of Common Stock, subject to certain limitations, from time to time during the three-year term of the Purchase Agreement. Additionally, the Company agreed to file a registration statement with the U.S. Securities & Exchange Commission (SEC) covering the resale of the shares that have been or may be issued to LPC under the Purchase Agreement. Upon the occurrence of certain events, including the SEC declaring effective the registration statement related to the resale of such shares, the Company will have the right, in its sole discretion, over a 36-month period to sell up to $15 million of Common Stock (subject to certain limitations) to LPC, depending on certain conditions as set forth in the Purchase Agreement.

On October 21, 2011 and October 24, 2011, the Company entered into Subscription Agreements with certain accredited investors, pursuant to which the Company agreed to issue and sell an aggregate of 1,015 shares of Series A Preferred Convertible Stock, $0.001 par value per share, at a purchase price of $1,000 per share. The aggregate purchase price paid by the Series A Purchasers for the shares of Series A Preferred is $1,015,000. Upon receipt of stockholder approval, each share of Series A Preferred will automatically convert into 263.158 shares of Common Stock, subject to a 19.99% beneficial ownership conversion limit. The Company intends to seek stockholder approval for the conversion of the Series A Preferred Stock at the 2012 Annual Meeting.

On October 21, 2011, the Company entered into a Subscription Agreement with a single accredited investor, pursuant to which the Company agreed to issue and sell an aggregate of 675,000 shares of Common Stock, $0.001 par value per share, at a purchase price of $3.70 per share. The

aggregate purchase price for the shares of Common Stock was $2,497,500.

Based upon the Company s cash on hand and operating plan at September 30, 2011, additional sources of financing since September 30, 2011 and other sources of liquidity, as described above, the Company s management anticipates that the Company will be able to satisfy the cash requirements of its operations through at least the next twelve months. However, the Company anticipates that further equity financings, and/or asset sales and license agreements will be necessary to continue to fund operations in the future.

Table of Contents

Off-Balance Sheet Arrangements

As of September 30, 2011, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As a Smaller Reporting Company, we are not required to provide this information.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this item is included in Item 15 of this Annual Report Form 10-K.

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 (the Exchange Act) Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this Annual Report on Form 10-K (the 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 in the United States. 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, 2011. 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, management has concluded that our

internal control over financial reporting was effective as of September 30, 2011.

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, 2011, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

ITEM 9B. OTHER INFORMATION
None

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.
Board of Directors:

The names and ages of our directors serving as of December 15, 2011 are provided below. Directors are elected annually for a one year term. Biographical information regarding these officers is set forth under the following table.

Name	Age	Position with Arrowhead
Christopher Anzalone	42	Chief Executive Officer & President and Director
R. Bruce Stewart	73	Executive Chairman of the Board
Mauro Ferrari	52	Director
Edward W. Frykman	75	Director
Douglass Given	59	Director
Charles P. McKenney	73	Director
Michael S. Perry	52	Director

Dr. Christopher Anzalone has been President, Chief Executive Officer and Director of the Company since December 1, 2007. In 2005, Dr. Anzalone formed and served as CEO of the Benet Group LLC, private equity firm focused on creating and building new nano-biotechnology companies from university-generated science. While at The 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. Dr. Anzalone remains CEO and director of Nanotope. Dr. Anzalone is a director of Arrowhead s wholly-owned subsidiary, Arrowhead Madison Inc., majority-owned subsidiaries, Calando Pharmaceuticals, Inc., Ablaris Therapeutics, Inc., and Tego Biosciences Corporation and minority investment, Leonardo Biosystems, Inc. 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, where he was in charge of sourcing, structuring, and building new business ventures and was founding CEO of NanoInk, Inc., a leading nanolithography company. Dr. Anzalone holds a Ph.D. in Biology from UCLA and a B.A. in Government from Lawrence University. We believe Dr. Anzalone s qualifications to serve on the Board include his deep understanding of the business through his role as Chief Executive Officer; in addition Dr. Anzalone has extensive experience in nanotechnology, biotechnology, company-building and venture capital.

R. Bruce Stewart has been Executive Chairman of the Board of the Company since December 1, 2007. Mr. Stewart was Arrowhead s Chief Executive Officer and Chairman of the Board of the Company from January 2004 to November 30, 2007. Mr. Stewart was the Chairman of the Board of Arrowhead s predecessor company 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 is a director of Arrowhead s majority-owned subsidiaries Calando Pharmaceuticals, Inc., Ablaris Therapeutics, Inc., and Tego Biosciences Corporation. 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. We believe Mr. Stewart s qualifications to serve on the Board includes his long tenure as Chief Executive Officer and as a member of the Board during which time he gained an extensive understanding of the Company s operations, strategy and finances, as well as his extensive experience in the field of finance.

Dr. Mauro Ferrari was appointed to the Arrowhead Board of Directors in 2010. Dr. Ferrari is the President and CEO of The Methodist Hospital Research Institute (TMHRI). He is also the President of The Alliance for NanoHealth. Dr. Ferrari is a director of Arrowhead s minority investment, Leonardo Biosystems, Inc. Dr. Ferrari is an internationally recognized expert in nanomedicine and biomedical nanotechnology. Prior to assuming leadership of TMHRI, Dr. Ferrari was Professor and Chairman of The Department of NanoMedicine and Biomedical Engineering at The University of Texas Health Science Center at Houston, Professor of Experimental Therapeutics at the MD Anderson Cancer Center, Adjunct Professor of Bioengineering at Rice University, and Adjoint Professor of Biomedical Engineering at the University of Texas in Austin. His previous academic appointments include professorships at UC Berkeley and Ohio State University.

From 2003 to 2005, he served as Special Expert on Nanotechnology and Eminent Scholar at The National Cancer Institute, where he led in the development of the NCI s program in Nanotechnology, which remains the largest program in NanoMedicine in the world. Dr. Ferrari has been serving as the Editor-in-Chief for Biomedical Microdevices: BioMEMS and Biomedical Nanotechnology since 1997. We believe Dr. Ferrari s qualifications to serve on the Board include his extensive training and experience in the fields of nanotechnology, biotechnology and biomedical applications. Dr. Ferrari has significant technical training, several academic appointments and numerous published articles and patents. Additionally, Dr. Ferrari has extensive experience in developmental stage organizations having founded several startup companies.

Edward W. Frykman has been a director of the Company since January 2004. Mr. Frykman was an Account Executive with Crowell, Weedon & Co., a position he held from 1992 until 2008 when he retired. Before his service at Crowell, Weedon & Co., Mr. Frykman served as Senior Vice President of L.H. Friend & Co. Both Crowell Weedon & Co. and L.H. Friend & Co. are

Table of Contents

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 Arrowhead s predecessor company since its inception in May 2003 until January 2004, when he became a director of the Company. Mr. Frykman is also a director of Acacia Research Corporation, a publicly-held corporation based in Newport Beach, California. Mr. Frykman is a director of Arrowhead s majority-owned subsidiaries Calando Pharmaceuticals, Inc., Ablaris Therapeutics, Inc., and Tego Biosciences Corporation. We believe Mr. Frykman s qualifications to serve on the Board include his long tenure as a member of the Board which enabled Mr. Frykman to gain a deep understanding of the company s operations, strategy and finances. Mr. Frykman also has extensive experience in the fields of finance and public company oversight.

Dr. Douglass Given has been a director of the company since November 2010. He is an Investment Partner at Bay City Capital and has been with the firm since October 2000. He was formerly Chief Executive Officer and a director of NeoRx, Corporate Sr. Vice President and Chief Technical Officer of Mallinckrodt, and Chief Executive Officer and a director of Progenitor and Mercator Genetics. He held positions as Vice President at Schering Plough Research Institute, Vice President at Monsanto/G.D. Searle Research Laboratories, and Medical Advisor at Lilly Research Laboratories. Dr. Given is the Chairman of VIA Pharmaceuticals, and Chairman of Vivaldi Biosciences. He is Chairman of the Visiting Committee to the Division of Biological Sciences and the Pritzker School of Medicine at the University of Chicago, a member of the Johns Hopkins Bloomberg School of Public Health Advisory Board, and a member of the Harvard School of Public Health AIDS Initiative International Advisory Council.

Dr. Given holds an MD with honors and a PhD from the University of Chicago, and an MBA from the Wharton School, University of Pennsylvania. He was a fellow in Internal Medicine and Infectious Diseases at Harvard Medical School and Massachusetts General Hospital. We believe Dr. Given s qualifications to serve on the Board include his extensive experience in finance and business transactions, particularly investments in the life sciences industry as well as directorship roles in start-up biotechnology companies. Dr. Given also has significant leadership roles, including CEO and Senior Vice President, at several large pharmaceutical companies. Dr. Douglass Given is a brother of Dr. Bruce Given, our chief operating officer.

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 s 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 is a director of Arrowhead s majority-owned subsidiaries Calando Pharmaceuticals, Inc., Ablaris Therapeutics, Inc., and Tego Biosciences Corporation. We believe Mr. McKenney s qualifications to serve on the Board include his long tenure as a member of the Board resulting in a deep understanding of the Company s operations, strategy and finances. Mr. McKenney also has extensive experience providing strategic legal and advisory services to developmental stage organizations.

Dr. Michael S. Perry was appointed to the Company s Board of Directors on December 19, 2011. Dr. Perry has been a Venture Partner with Bay City Capital LLP since 2005. Dr. Perry was appointed President and Chief Medical Officer of Poniard Pharmaceuticals, a Bay City Capital portfolio company (NASDAQ: PARD) in 2010. He also currently serves as a member of the board of directors of AmpliPhi Biosciences Corporation (APHB.PK). He was Chief Development Officer at VIA Pharmaceuticals, Inc., a publicly held drug development company, from April 2005 until May 2009. Prior thereto, he served as Chairman and Chief Executive Officer of Extropy Pharmaceuticals, Inc., a privately held pediatric specialty pharmaceutical company, from June 2003 to April 2005. From 2002 to 2003, Dr. Perry served as President and Chief Executive Officer of Pharsight Corporation, a publicly held software and consulting services firm. From 2000 to 2002, Dr. Perry served as Global Head of Research and Development for Baxter BioScience. From 1997 to 2000, Dr. Perry was President and Chief Executive Officer of both SyStemix Inc. and Genetic Therapy Inc., two wholly owned subsidiaries of Novartis Corp., and from 1994 to 1997, he was Vice President of Regulatory Affairs for Novartis Pharma (previously Sandoz Pharmaceuticals). Prior to 1994, Dr. Perry held various management positions with Syntex Corporation, Schering-Plough Corporation and BioResearch Laboratries, Inc. Dr. Perry holds a Doctor of Veterinary Medicine, a Ph.D. in Biomedical Pharmacology and a B.Sc. in Physics from the University of Guelph, Ontario, Canada. He is a graduate of the International Management Program at Harvard Business School. We believe Dr. Perry s qualifications to serve on the board include his medical expertise and his extensive experience in preclinical and clinical drug development, including executive level leadership roles in several publicly held biotech companies.

Executive Officers:

The names and ages of our executive officers and the positions held by each as of December 15, 2011 are as follows:

Name	Age	Position with Arrowhead
Christopher Anzalone	42	Chief Executive Officer & President and Director
R. Bruce Stewart	73	Executive Chairman of the Board
Kenneth A. Myszkowski	45	Chief Financial Officer
Bruce Given	57	Chief Operating Officer

Dr. Christopher Anzalone (see Board of Directors)

R. Bruce Stewart (see Board of Directors)

Kenneth A. Myszkowski, Chief Financial Officer, joined Arrowhead in 2009. Prior to joining Arrowhead, Mr. Myszkowski served as the corporate controller for Broadwind Energy, a public energy company which provides products and services to the wind energy industry. Previous to his position at Broadwind, Mr. Myszkowski was controller for Epcor USA, the U.S. headquarters for Epcor Utilities, Inc., a public energy company. Prior to Epcor, Mr. Myszkowski was controller for two start-up ventures: NanoInk, specializing in Dip Pen Nanolithography, a nanofabrication technology, and Delphion, which provided on-line tools for intellectual property research. Mr. Myszkowski also held several corporate roles at FMC Corporation, and Premark International, both Fortune 500 conglomerates. He began his career in the audit practice of Arthur Andersen & Co. in Chicago, Illinois. Mr. Myszkowski received his undergraduate degree from the University of Illinois, and his MBA from the University of Chicago Booth School of Business. He is a certified public accountant.

Table of Contents

Dr. Bruce Given, Chief Operating Officer, joined Arrowhead in 2011. Since October 1, 2009, Dr. Given has been a director of the Company s subsidiary, Calando Pharmaceuticals, Inc., and since February 1, 2010, Dr. Given has been Chief Executive Officer of Leonardo Biosystems, Inc., a company in which Arrowhead holds a minority equity interest. Dr. Given has been a member of the Board of Directors for ICON, plc. since 2007, and Chairman of the Board of Directors since 2010. Dr. Given served as the President and Chief Executive Officer, and as a member of the Board of Directors of Encysive Pharmaceuticals, an R&D-based commercial pharmaceutical company, roles he held from 2002 through 2007. Subsequent to his tenure at Encysive until present, Dr. Given has been President of Bruce Given Consulting, a firm that provides consulting services to biotech companies. Prior to his tenure at Encysive, Dr. Given held several senior executive roles at Johnson and Johnson, Sandoz Pharmaceuticals, and Schering-Plough. Dr. Given obtained his bachelor of sciences degree from Colorado State University, graduating Phi Beta Kappa. He received his M.D. degree with honors from the University of Chicago, Pritzker School of Medicine and completed his medical training at the University of Chicago and at Brigham and Women s Hospital in Boston, where he was a Clinical Fellow at Harvard Medical School. He is board certified in internal medicine and endocrinology and metabolism and has authored 33 scientific publications. Dr. Bruce Given is a brother of Dr. Douglass Given, a director of the company.

Section 16(a) Beneficial Ownership Reporting Compliance

Under Section 16(a) of the Securities Exchange Act of 1934, the Company s directors and officers and its significant stockholders (defined by statute as stockholders beneficially owning more than ten percent (10%) of the Common Stock) are required to file with the SEC and the Company reports of ownership, and changes in ownership, of common stock. Based solely on a review of the reports received by it, the Company believes that, during the fiscal year ended September 30, 2011, all of its officers, directors and significant stockholders complied with all applicable filing requirements under Section 16(a).

Code of Ethics

We have adopted a code of conduct that applies to our Chief Executive Officer, Chief Financial Officer, and to all of our other officers, directors and employees. The code of conduct is available at the Corporate Governance section of the Investor Relations page on our website at www.arrowheadresearch.com. Any waivers from or amendments to the code of conduct, if any, will be posted on our website.

Corporate Governance

The Audit Committee of the Board is currently comprised of three directors and operates under a written charter adopted by the Board. The members of the Audit Committee are Edward W. Frykman, Charles P. McKenney and Mauro Ferrari. All members of the Audit Committee are independent, as defined in Rule 10A-3 under the Exchange Act and Rule 4200(a)(14) of the NASDAQ Marketplace Rules, and financially literate. The Board has determined that Mr. Frykman is an audit committee financial expert in accordance with the applicable regulations.

ITEM 11. EXECUTIVE COMPENSATION.

Executive Officers

Summary Compensation Table

The following table summarizes compensation paid, awarded or earned for services rendered during fiscal 2011 and fiscal 2010 by our Chief Executive Officer, and Kenneth Myszkowski, our other executive officer serving the Company as of September 30, 2011. We refer to those persons collectively as our Named Executive Officers .

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Awards ($)	Option Awards ($)(1)	All Other Compensation ($)(2)	Total ($)
Christopher Anzalone			25,000				
President & Chief Executive Officer	2011	400,000					425,000
	2010	400,000			1,134,094		1,534,094
Ken Myszkowski	2011	225,000	7,500			9,000	241,500
Chief Financial Officer	2010	185,096			249,172		463,418

	27,419	1,731

(1) This column represents the total grant date fair value, computed in accordance with ASC 718, of stock options granted during fiscal year 2011. The assumptions used to calculate the value of the stock underlying the option awards are set forth in Note 7 of the Notes to the Consolidated Financial Statements attached hereto.
(2) Amounts consist of 401(k) matching contributions.

Table of Contents

Additional disclosure related to executive compensation required by Item 11 is hereby incorporated by reference from the information under the caption Executive Compensation contained our definitive Proxy Statement for the 2011 Annual Meeting of Stockholders.

Outstanding Equity Awards at Fiscal Year-End

The following table provides information, with respect to the Named Executive Officers, concerning the Outstanding Equity Awards of the Company s stock as of September 30, 2011. Note that the information in Item 11 reflect the adjustment related to the 1 for 10 reverse stock split which occurred on November 17, 2011.

	Option Awards (1)			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Christopher Anzalone	2,500		21.30	6/11/2018
	100,117	12,532	5.10	10/8/2019
	42,243	14,081	5.20	3/4/2020
	10,416	36,458	9.90	8/16/2020
Ken Myszkowski	10,676	14,323	7.00	11/16/19
	6,000	2,000	5.20	3/4/2020
	3,250	8,750	9.90	8/16/2020

(1) All option awards were granted under the 2000 Stock Option Plan or the 2004 Equity Incentive Plan of the Company. Options are priced at the market closing price on the day of the award. Options have various vesting parameters, but generally vest within 48 months or less after the award is granted.

Director Compensation

Directors who are also employees of the Company receive no separate compensation from the Company for their service as members of the Board. Non-employee directors currently receive a cash retainer of $20,000 per year. Additionally, non-employee directors who have served on the Board for at least six months receive an automatic grant of non-qualified stock options to purchase 4,000 shares of Common Stock upon re-election each year. Based on the policies of their current employers, Dr. Perry and Dr. Given have waived their right to cash compensation and have waived their right to received stock option grants. The following table sets forth the total compensation paid to our directors in fiscal 2011.

Name	Fee Earned or Paid in Cash ($) (1)	Option Awards ($) (2) (3)	Total ($)
Bruce Stewart (4)	$	$	$
Edward Frykman	$ 20,000	$ 15,020	$ 35,020
Charles McKenney	$ 20,000	$ 15,020	$ 35,020
Mauro Ferrari	$	$	$
Douglass Given	$	$	$

(1) Each non-employee director received $5,000 per quarter for his service as a director. There are no additional payments for being a member of a committee. Mr. Ferrari and Mr. Given have declined to receive cash compensation.

(2)

This column represents the total grant date fair value, computed in accordance with ASC 718, of stock options granted during fiscal year 2011. The assumptions used to calculate the value of option awards are set forth under Note 7 to the Consolidated Financial Statements attached hereto.

(3) Annual option grant to non-employee directors vest one year from date of grant. At September 30, 2011, Mr. Frykman had outstanding option grants to purchase 30,500 shares at prices ranging from $4.90 to $20.20; Mr. McKenney had outstanding option grants to purchase 28,000 shares at prices ranging from $4.90 to $20.20; and Mr. Ferrari had outstanding option grants to purchase 24,843 shares at prices ranging from $9.60 to $28.70.

(4) Excludes $50,000 paid to Mr. Stewart in his role as Executive Chairman of the Company.

Table of Contents

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

The following table sets forth the beneficial ownership of the Company s Common Stock as of November 30, 2011, by (i) each of the named executive officers named in the table under Executive Compensation and Related Information, (ii) each director, (iii) all current directors and executive officers as a group, and (iv) the holders of greater than 5% of our total shares outstanding known to us. Unless otherwise specified in the footnotes to the table below, the persons and entities named in the table have sole voting and investment power with respect to all shares beneficially owned, subject to community property laws, where applicable and the address of each stockholder is c/o Arrowhead Research Corporation, 225 South Lake Avenue, Suite 300, Pasadena, California 91101. All information in Item 12 has been adjusted to reflect the 1 for 10 reverse stock split which was effected on November 17, 2011.

	Number and Percentage of Shares Beneficially Owned (1)	
	Shares	Percentage
5% Beneficial Owners		
M. Robert Ching (2)	1,042,068	9.9%
Roche Finance Ltd. (3)	901,702	8.6%
Galloway Ltd. (4)	727,233	6.9%
Vermogensverwaltungs - Gesellschaft Zurich (5)	675,000	6.4%
Executive Officers and Directors		
R. Bruce Stewart (6)	137,608	1.3%
Chris Anzalone (7)	250,836	2.4%
Kenneth Myszkowski (8)	25,843	*
Edward Frykman (9)	33,042	*
Charles McKenney (10)	24,353	*
Mauro Ferrari (11)	26,797	*
Douglass Given		
All executive officers and directors as a group (7 persons) (12)	498,479	4.7%

* Less than 1%

(1) Based on 10,525,941 common shares issued and outstanding as of November 30, 2011. Shares not outstanding but deemed beneficially owned by virtue of the right of a person to acquire them as of November 30, 2011, or within sixty days of such date, are treated as outstanding only when determining the percentage owned by such individual and when determining the percentage owned by a group.

(2) Includes 793,611 shares of common stock and 111,039 shares of common stock issuable upon the exercise of common stock purchase warrants, of which 45,600 shares of common stock, and 18,240 shares of common stock issuable upon the exercise of common stock purchase warrants are held by BBB Assets for which M. Robert Ching holds investment and voting control. Also includes 137,418 shares of common stock issuable upon conversion of Series A Preferred Stock, including additional shares of Series A Preferred Stock issuable in in-kind distribution as payment of dividends through March 31, 2012, conversion of which is subject to stockholder approval. Certain of the warrants and the conversion of the preferred stock are subject to a contractual blocker whereby the right to exercise or convert such warrant or preferred stock is limited such that Dr. and Mrs. Ching will not have greater than 9.99% beneficial ownership of the outstanding common stock. Warrants to purchase 746,628 shares are currently not exercisable due to this limitation.

(3) Carole Nuechterlein, Head of Roche Venture Fund, holds voting and investment control with respect to the shares owned by Roche Finance, Ltd. The address for Roche Finance Ltd. is Grenzacherstrasse 124, 4058 Basel Switzerland.

(4) Denham Eke holds voting and investment control with respect to the shares owned by Galloway, Ltd. The address for Galloway, Ltd. is Viking House, Nelson Street, Douglas, Isle of Man, IM1 2AH

(5) Markus Winkler holds voting and investment control with respect to the shares owned by Vermogensverwaltungs - Gesellschaft Zurich (VGZ), the address for VGZ is Mainaustrasse 30, CH - 8034 Zurich Switzerland

(6) Includes 86,458 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.

(7) Includes 184,489 shares issuable upon the exercise of stock options, and 32,172 shares issuable upon the exercise of common stock purchase warrants that are exercisable within 60 days of November 30, 2011.

(8) Includes 24,342 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.

(9) Includes 26,041 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.

(10) Includes 23,333 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.

(11) Includes 24,845 shares issuable upon the exercise of stock options that are exercisable within 60 days of November 30, 2011.

(12) Includes 369,511 shares issuable upon the exercise of stock options, and 32,112 shares issuable upon the exercise of common stock purchase warrants that are exercisable within 60 days of November 30, 2011.

32

Table of Contents

EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of September 30, 2011 with respect to shares of our Common Stock that may be issued under our equity compensation plans. On November 17, 2011, the Company effected a 1 for 10 reverse stock split. The share data in the table below are listed on a post-split basis.

	Equity Compensation Plan Information		
Plan Category	**Number of securities to be issued upon exercise of outstanding options, warrants and rights**	**Weighted average exercise price of outstanding options, warrants and rights**	**Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))**
Equity compensation plans approved by security holders(1)	729,096	$ 9.03	394,548
Equity compensation plans not approved by security holders	N/A	N/A	
Total	729,096		394,548

(1) Includes options outstanding representing 575,896 shares subject to the 2004 Equity Incentive Plan and 153,200 shares subject to the 2000 Option Plan. No shares are available for issuance under the 2000 option plan.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

As of September 30, 2011, a majority of the members of the Board are independent directors, as defined by the NASDAQ Marketplace Rules. The Board has determined that all of the Company s directors are independent, except Mr. Stewart, the Company s Executive Chairman and former Chief Executive Officer, and Dr. Anzalone, the Company s Chief Executive Officer. Effective upon the hiring of Dr. Bruce Given as the Company s Chief Operating Officer on October 26, 2011, Dr. Doug Given is no longer considered an independent director under Nasdaq Marketplace Rules. With the appointment of Michael Perry as a member of the Company s Board of Directors and Audit Committee on December 19, 2011, a majority of independent directors was restored and compliance with Nasdaq s Marketplace Rules was regained. Dr. Perry was also appointed to each of the Compensation and Nominating Committees concurrent with his appointment. Independent directors do not receive consulting, legal or other fees from the Company, other than Board compensation.

Nanotope and Leonardo were co-founded by the Company s President and Chief Executive Officer, Dr. Christopher Anzalone, who beneficially owns approximately 14.2% and 15.9% of the outstanding voting securities of Nanotope and Leonardo, respectively. Dr. Anzalone does not hold options, warrants or any other rights to acquire securities of Nanotope or Leonardo. Dr. Anzalone has the right to appoint a representative to the Board of Directors of each Nanotope and Leonardo. Dr. Anzalone is serving as the President and Chief Executive Officer of Nanotope. Dr. Anzalone has not received any compensation for his work on behalf of Nanotope or Leonardo since joining the Company on December 1, 2007.

During fiscal 2011, a portion of Arrowhead employee salary costs, including Dr. Anzalone s salary and administrative overhead, was charged to Nanotope and Leonardo for management and administrative services provided by Arrowhead to Nanotope and Leonardo. During fiscal 2011, the charge for services provided to Nanotope and Leonardo were $313,282 and $168,403, respectively. In addition, Arrowhead made cash advances to Nanotope of $432,502 and to Leonardo of $100,000 during fiscal 2011. The majority of the balance due Arrowhead is expected to be repaid in cash or converted to equity in fiscal 2012. In addition, the Bruce Given, Chief Operating Officer and CEO of Leonardo, Bruce Given, is the brother of Doug Given, a member of Arrowhead s Board of Directors. Doug Given has no financial interest in Leonardo.

In August 2010, the Company retained Mr. Vincent Anzalone, the brother of Arrowhead s Chief Executive Officer, as a consultant for the Company, focusing on business development and market analysis. Mr. Vincent Anzalone was paid $20,000 during the fiscal year ended September 30, 2010, and $120,000 during the fiscal year ended September 30, 2011. Since October 1, 2011 through the date of this filing,

December 20, 2011, Mr. Vincent Anzalone was paid $30,000.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The Audit Committee regularly reviews and determines whether specific projects or expenditures with our independent auditors, Rose, Snyder & Jacobs (RS&J), may potentially affect their independence. The Audit Committee s policy is to pre-approve all audit and permissible non-audit services provided by RS&J. Pre-approval is generally provided by the Audit Committee for up to one year, detailed to the particular service or category of services to be rendered and is generally subject to a specific budget. The Audit Committee may also pre-approve additional services of specific engagements on a case-by-case basis. All engagements of our independent registered public accounting firm in 2011 and 2010 were pre-approved by the audit committee.

Table of Contents

The following table sets forth the aggregate fees invoiced by RS&J for the fiscal years ended September 30, 2011, and September 30, 2010:

	Year Ended September 30,	
	2011	2010
Audit fees (1)	$ 116,200	$ 126,200
Audit-related fees (2)	16,150	76,300
Tax fees (3)	20,085	47,050
Total	$ 152,435	$ 249,550

(1) Fees invoiced by RS&J include year-end audit and quarterly reviews of Form 10-Q.
(2) Fees invoiced by RS&J related to Arrowhead Comfort Letter and Consents, and other agreed-upon procedures.
(3) This category consists of professional services rendered by RS&J for tax return preparation.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

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.

Table of Contents

(3) Exhibits.

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

Exhibit Number	Description	Incorporated by Reference Herein Form	Date
2.1	Stock and Asset Purchase Agreement between Arrowhead Research Corporation and Roche entities, dated October 21, 2011*		
3.1	Certificate of Incorporation of InterActive Group, Inc., a Delaware corporation, dated February 13, 2001	Schedule 14C, as Exhibit A	December 22, 2000
3.2	Certificate of Amendment to Certificate of Incorporation of InterActive Group, Inc. (effecting, among other things a change in the corporation s name to Arrowhead Research Corporation), filed with the Secretary of State of the State of Delaware on January 12, 2004	Schedule 14C, as Exhibit 1	December 22, 2003
3.3	Certificate of Amendment to Certificate of Incorporation of Arrowhead Research Corporation, dated January 25, 2005	Form 10-QSB for the quarter ended December 31, 2004, as Exhibit 3.4	February 11, 2005
3.4	Certificate of Amendment to Certificate of Incorporation of Arrowhead Research Corporation, dated October 13, 2009	Annual Report on Form 10-K for the fiscal year ended September 30, 2009, as Exhibit 3.4	December 22, 2009
3.5	Series A Certificate of Designations, dated October 25, 2011	Current Report on Form 8-K, as Exhibit 3.1	October 26, 2011
3.6	Certificate of Amendment to Certificate of Incorporation of Arrowhead Research Corporation, dated November 17, 2011	Current Report on Form 8-K, as Exhibit 3.1	November 17, 2011
3.7	Bylaws	Schedule 14C, as Exhibit B	December 22, 2000
3.8	Amendment No. 1 to the Bylaws of Arrowhead Research Corporation	Current Report on Form 8-K, as Exhibit 3.1	April 27, 2010
4.1	Form of Registration Rights Agreement, July and August 2009	Current Report on Form 8-K, as Exhibit 10.2	July 17, 2009
4.2	Form of Registration Rights Agreement, dated December 11, 2009	Annual Report on Form 10-K for the fiscal year ended September 30, 2009, as Exhibit 4.2	December 22, 2009
4.3	Form of Warrant to Purchase Shares of Common Stock expiring in July and August 2013	Current Report on Form 8-K, as Exhibit 10.2	August 26, 2008
4.4	Form of Common Stock Warrant expiring in September 2013	Current Report on Form 8-K, as Exhibit 10.2	September 11, 2008
4.5	Form of Warrant to Purchase Capital Stock expiring June 2014	Current Report on Form 8-K, as Exhibit 4.1	July 17, 2009
4.6	Form of Warrant to Purchase Capital Stock expiring December 2014	Annual Report on Form 10-K for the fiscal year ended September 30, 2009, as Exhibit 4.7	December 22, 2009
4.7	Form of Warrant to Purchase Common Stock expiring May 2017	Current Report on Form 8-K, as Exhibit 4.1	May 30, 2007

35

Table of Contents

Exhibit Number	Description	Incorporated by Reference Herein Form	Date
4.8	Form of Warrant to Purchase Common Stock, dated June 2010	Current Report on Form 8-K, as Exhibit 4.1	June 18, 2010
4.9	Form of Registration Rights Agreement between Arrowhead Research Corporation and Lincoln Park Capital Fund, LLC, dated October 20, 2011	Current Report on Form 8-K, as Exhibit 10.2	October 26, 2011
4.10	Form of Registration Rights Agreement between Arrowhead Research Corporation and Roche entities, dated October 21, 2011*		
4.11	Form of Warrant to Purchase Shares of Capital Stock of Arrowhead Research Corporation expiring September 16, 2015	Current Report on Form 8-K, as Exhibit 4.1	September 22, 2010
4.12	Form of Common Stock Certificate	Amendment No. 2 to Registration Statement on Form S-1, as Exhibit 4.7	September 11, 2009
4.13	Form of Series A Preferred Stock Certificate*		
10.1**	Arrowhead Research Corporation (fka InterActive, Inc.) 2000 Stock Option Plan	Schedule 14C, as Exhibit D	December 22, 2000
10.2**	Arrowhead Research Corporation 2004 Equity Incentive Plan, as amended	Schedule 14C, as Annex A	April 30, 2010
10.3**	Executive Incentive Plan, adopted December 12, 2006	Annual Report on Form 10-K for the fiscal year ended September 30, 2006, as Exhibit 10.11	December 14, 2006
10.4**	Compensation Policy for Non-Employee Directors, as amended	Annual Report on Form 10-K for the fiscal year ended September 30, 2006, as Exhibit 10.12	December 14, 2006
10.5**	Severance Agreement by and between Arrowhead and R. Bruce Stewart, dated May 24, 2007	Current Report on Form 8-K, as Exhibit 10.1	May 30, 2007
10.6**	Amendment to Severance Agreement between Arrowhead and R. Bruce Stewart, effective May 12, 2009	Annual Report on Form 10-K for the fiscal year ended September 30, 2009, as Exhibit 10.6	December 22, 2009
10.7**	Employment Agreement between Arrowhead and Dr. Christopher Anzalone, dated June 11, 2008	Current Report on Form 8-K, as Exhibit 10.1	June 13, 2008
10.8**	Amendment to Employment Agreement between Arrowhead and Dr. Christopher Anzalone, effective May 12, 2009	Annual Report on Form 10-K for the fiscal year ended September 30, 2009, as Exhibit 10.8	December 22, 2009
10.9	Insert Therapeutics, Inc. Amended and Restated Investors Rights Agreement, dated April 17, 2008	Current Report on Form 8-K, as Exhibit 10.3	April 23, 2008
10.10	Second Amended and Restated Investors Rights Agreement, by and between Nanotope, Inc and the Investors and Stockholders listed therein, dated July 23, 2008	Current Report on Form 8-K, as Exhibit 10.2	July 25, 2008
10.11	Form of Unsecured Convertible Promissory Note Agreement, dated November 26, 2008	Current Report on Form 8-K, as Exhibit 10.1	December 3, 2008

Table of Contents

Exhibit Number	Description	Incorporated by Reference Herein Form	Date
10.12	Platform Agreement by and between Calando Pharmaceuticals, Inc and Cerulean Pharma Inc., dated as of June 23, 2009	Form 10-Q for the quarter ended June 30, 2009, as Exhibit 10.1	August 10, 2009
10.13	IT-101 Agreement by and between Calando Pharmaceuticals, Inc and Cerulean Pharma, Inc., dated as of June 23, 2009	Form 10-Q for the quarter ended June 30, 2009, as Exhibit 10.2	August 10, 2009
10.14	Asset Purchase Agreement between Tego BioSciences, Inc. and Luna Innovations, Inc., dated November 13, 2009	Form 10-Q for the quarter ended December 31, 2009 as Exhibit 10.1	February 11, 2010
10.15	Form of Exchange Agreement between Arrowhead Research Corporation and several investors, dated September 28, 2009	Form 10-Q for the quarter ended December 31, 2009, as Exhibit 10.2	February 11, 2010
10.16	Form of Subscription Agreement between Arrowhead Research Corporation and certain investors, dated December 11, 2009	Annual Report on Form 10-K for the fiscal year ended September 30, 2009, as Exhibit 10.24	December 22, 2009
10.17**	Amendment to Employment Agreement between Arrowhead and R. Bruce Stewart, effective May 27, 2010	Current Report on Form 8-K, as Exhibit 10.1	May 28, 2010
10.18	Form of Subscription Agreement between Arrowhead and certain investors, dated June 17, 2010	Current Report on Form 8-K, as Exhibit 10.2	June 18, 2010
10.19	Form of Exchange Agreement between Arrowhead and certain stockholders, dated September 16, 2010	Current Report on Form 8-K, as Exhibit 10.1	September 22, 2010
10.20	License and Enforcement Agreement between Unidym, Inc. and Samsung Electronics Co., Ltd., dated December 2010	Form 10-Q for the quarter ended December 31, 2010, as Exhibit 10.1	February 10, 2011
10.21	CNT Production Patent License Agreement between Unidym, Inc. and Samsung Electronics Co., Ltd., dated December 2010	Form 10-Q for the quarter ended December 31, 2010, as Exhibit 10.2	February 10, 2011
10.22	Intellectual Property Purchase and Business Cooperation Agreement between Unidym, Inc. and Samsung Electronics Co., Ltd., dated December 2010	Form 10-Q for the quarter ended December 31, 2010, as Exhibit 10.3	February 10, 2011
10.23	Patent and Technology License Agreement between Arrowhead Research Corporation and the Board of Regents of The University of Texas System, dated December 14, 2010	Form 10-Q for the quarter ended December 31, 2010, as Exhibit 10.4	February 10, 2011
10.24	Form of Series A Preferred Stock Purchase Agreement among Ablaris Therapeutics Inc. and certain investors, dated January 2011	Form 10-Q for the quarter ended March 31, 2011, as Exhibit 10.2	May 12, 2011
10.25	Stock Purchase Agreement between Arrowhead Research Corporation and Calando Pharmaceuticals, Inc., dated January 10, 2011	Form 10-Q for the quarter ended March 31, 2011, as Exhibit 10.1	May 12, 2011

Table of Contents

Exhibit Number	Description	Incorporated by Reference Herein Form	Date
10.26	Agreement and Plan of Merger among Wisepower Co., Ltd., Unicycle Acquisition Corp, Unidym, Inc. and Arrowhead Research Corporation, dated January 17, 2011	Current Report on Form 8-K, as Exhibit 10.1	January 21, 2011
10.27	Stock Purchase Agreement between Wisepower Co., Ltd. and Arrowhead Research Corporation, dated January 17, 2011	Current Report on Form 8-K, as Exhibit 10.2	January 21, 2011
10.28	Bond Purchase Agreement between Wisepower Co., Ltd. and Arrowhead Research Corporation, dated January 17, 2011	Current Report on Form 8-K, as Exhibit 10.3	January 21, 2011
10.29	Form of Subscription Agreement between Arrowhead Research Corporation and certain Investors, dated September 2011	Current Report on Form 8-K, as Exhibit 10.1	October 6, 2011
10.30	Form of Series A Subscription Agreement between Arrowhead Research Corporation and certain investors	Current Report on Form 8-K, as Exhibit 10.3	October 26, 2011
10.31	Form of Purchase Agreement between Arrowhead Research Corporation and Lincoln Park Capital Fund, LLC, dated October 20, 2011	Current Report on Form 8-K, as Exhibit 10.1	October 26, 2011
10.32	Form of Common Stock Subscription Agreement between Arrowhead Research Corporation certain Investors, dated October 21, 2011	Current Report on Form 8-K, as Exhibit 10.4	October 26, 2011
10.33	Non-Exclusive License Agreement between Arrowhead Research Corporation and Roche entities, dated October 21, 2011*		
10.34	Form of Investor Subscription Agreement between Arrowhead Research Corporation and Lincoln Park Capital Fund, LLC, dated October 24, 2011	Current Report on Form 8-K, as Exhibit 10.1	October 27, 2011
10.35	License and Collaboration Agreement, dated July 8, 2007*		
10.36	Collaboration Agreement by and among Alnylam Pharmaceuticals, Inc. and F. Hofmann-La Roche Ltd and Hoffman-La Roche Inc., dated October 29, 2009*		
21.1	List of Subsidiaries*		
23.1	Consent of Independent Public Registered Accounting Firm*		
24.1	Power of Attorney (contained on signature page)		
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*		

Table of Contents

Exhibit Number	Description	Incorporated by Reference Herein Form	Date
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*		
101.INS	XBRL Instance Document*		
101.SCH	XBRL Schema Document*		
101.CAL	XBRL Calculation Linkbase Document*		
101.LAB	XBRL Label Linkbase Document*		
101.PRE	XBRL Presentation Linkbase Document*		
101.DEF	XBRL Definition Linkbase Document*		

Pursuant to Rule 406T of Regulation S-T, the Interactive Data Files included in Exhibit 101 hereto are deemed not filed or a part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, and otherwise are not subject to liability under those sections.

* Filed herewith

** Indicates compensation plan, contract or arrangement.

Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

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 20th day of December 2011.

ARROWHEAD RESEARCH CORPORATION

By: /s/ Christopher Anzalone
Christopher Anzalone
Chief Executive Officer

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:

Signature	Title	Date
/s/ Christopher Anzalone **Christopher Anzalone**	Chief Executive Officer, President and Director (Principal Executive Officer)	December 20, 2011
/s/ Kenneth A. Myszkowski **Kenneth A. Myszkowski**	Chief Financial Officer (Principal Financial and Accounting Officer)	December 20, 2011
/s/ Edward W. Frykman **Edward W. Frykman**	Director	December 20, 2011
/s/ Mauro Ferrari **Mauro Ferrari**	Director	December 20, 2011
/s/ Douglass Given **Douglass Given**	Director	December 20, 2011
/s/ Charles P. Mckenney **Charles P. McKenney**	Director	December 20, 2011
Michael S. Perry	Director	December 20, 2011
/s/ R. Bruce Stewart **R. Bruce Stewart**	Executive Chairman & Director	December 20, 2011

Table of Contents

INDEX TO FINANCIAL STATEMENTS AND SCHEDULE

Table of Contents

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 (the Company) as of September 30, 2011 and 2010 and the related consolidated statements of operations, stockholders equity and cash flows for the years ended September 30, 2011, and 2010 and for the period from May 7, 2003 (inception) through September 30, 2011. 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 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 the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, 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 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, 2011 and 2010, and the consolidated results of their operations and their cash flows for the years ended September 30, 2011 and 2010, and for the period from May 7, 2003 (inception) through September 30, 2011 in conformity with accounting principles generally accepted in the United States of America.

Rose, Snyder & Jacobs

A Corporation of Certified Public Accountants

Encino, California

December 20, 2011

Table of Contents

Arrowhead Research Corporation and Subsidiaries

(A Development Stage Company)

Consolidated Balance Sheets

	September 30, 2011	September 30, 2010
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 7,507,389	$ 6,847,162
Trade receivable, net of allowance for doubtful accounts of $90,789 at September 30, 2010		58,864
Other receivables	1,608,382	871,819
Prepaid expenses and other current assets	110,818	353,930
Marketable securities	634,585	
TOTAL CURRENT ASSETS	9,861,174	8,131,775
PROPERTY AND EQUIPMENT		
Computers, office equipment and furniture	285,266	335,784
Research equipment	3,515	752,850
Software	77,020	150,445
Leasehold improvements		78,594
	365,801	1,317,673
Less: Accumulated depreciation and amortization	(340,364)	(1,176,404)
PROPERTY AND EQUIPMENT, NET	25,437	141,269
OTHER ASSETS		
Rent deposit		34,735
Patents	1,731,211	2,046,836
Note Receivable, net	2,272,868	
Derivative asset	161,125	
Investment in Nanotope Inc., equity basis	1,649,748	1,812,927
Investment in Leonardo Biosystems Inc., at cost	187,000	187,000
TOTAL OTHER ASSETS	6,001,952	4,081,498
TOTAL ASSETS	**$ 15,888,563**	**$ 12,354,542**
LIABILITIES AND STOCKHOLDERS EQUITY		
CURRENT LIABILITIES		
Accounts payable	$ 576,809	$ 681,563
Accrued expenses	864,511	494,736
Accrued payroll and benefits	195,649	191,425
Derivative liabilities	944,980	2,408,522
Note payable		500,000
TOTAL CURRENT LIABILITIES	2,581,949	4,276,246
LONG-TERM LIABILITIES		
Other non-current liabilities	135,660	
Note payable	606,786	

TOTAL LONG-TERM LIABILITIES	742,446	
Commitments and contingencies		
STOCKHOLDERS EQUITY		
Arrowhead Research Corporation stockholders equity:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; no shares issued or outstanding		
Common stock, $0.001 par value; 145,000,000 shares authorized; 8,642,286 and 7,172,014 shares issued and outstanding as of September 30, 2011 and September 30, 2010, respectively	86,423	71,735
Additional paid-in capital	127,476,435	119,716,834
Subscription receivable	(900,000)	
Accumulated deficit during the development stage	(113,871,752)	(110,742,867)
Total Arrowhead Research Corporation stockholders equity	12,791,106	9,045,702
Noncontrolling interest	(226,938)	(967,406)
TOTAL STOCKHOLDERS EQUITY	12,564,168	8,078,296
TOTAL LIABILITIES AND STOCKHOLDERS EQUITY	**$ 15,888,563**	**$ 12,354,542**

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 Statements of Operations

	Year Ended September 30,		May 7, 2003 (Inception) to
	2011	2010	September 30, 2011
REVENUE	**$ 296,139**	**$**	**$ 3,991,959**
OPERATING EXPENSES			
Salaries	1,408,366	1,146,394	19,977,209
General and administrative expenses	3,821,550	2,490,725	25,590,815
Research and development	3,277,760	529,601	40,428,729
Stock-based compensation	1,376,921	1,424,293	12,340,064
Patent amortization	241,808	241,808	1,781,944
TOTAL OPERATING EXPENSES	**10,126,405**	**5,832,821**	**100,118,761**
OPERATING LOSS	(9,830,266)	(5,832,821)	(96,126,802)
OTHER INCOME (EXPENSE)			
Loss on equity of investments - Nanotope	(163,180)	(219,540)	(723,253)
Gain on sale of stock in subsidiary			2,292,800
Gain/(loss) on sale of fixed assets, net		1,772	(127,088)
Realized and unrealized gain (loss) on marketable securities	(261,219)		121,045
Interest income (expense), net	86,530	(22,783)	2,714,478
Change in value of derivatives	1,133,127	1,761,385	2,894,512
Other income	250,000		250,000
TOTAL OTHER INCOME (EXPENSE)	**1,045,258**	**1,520,834**	**7,422,494**
LOSS FROM CONTINUING OPERATIONS BEFORE INCOME TAXES	**(8,785,008)**	**(4,311,987)**	**(88,704,308)**
Provision for income taxes			
LOSS FROM CONTINUING OPERATIONS	**(8,785,008)**	**(4,311,987)**	**(88,704,308)**
Income (loss) from discontinued operations	1,373,396	(2,645,051)	(47,546,562)
Gain on disposal of discontinued operations	3,919,213		4,708,588
NET INCOME (LOSS) FROM DISCONTINUED OPERATIONS	**5,292,609**	**(2,645,051)**	**(42,837,974)**
NET LOSS	(3,492,399)	(6,957,038)	(131,542,282)
Net (income) loss attributable to noncontrolling interests	363,514	1,182,990	17,834,490
NET LOSS ATTRIBUTABLE TO ARROWHEAD	**$ (3,128,885)**	**$ (5,774,048)**	**$ (113,707,792)**
Earnings per share - basic:			
Income (loss) from continuing operations attributable to Arrowhead common shareholders	$ (1.18)	$ (0.49)	
Income (loss) from discontinued operations attributable to Arrowhead common shareholders	0.74	(0.41)	
Net loss attributable to Arrowhead shareholders	$ (0.44)	$ (0.90)	

Weighted average shares outstanding	7,181,121	6,434,245
Earnings per share - diluted:		
Income (loss) from continuing operations attributable to Arrowhead common shareholders	$ (1.08)	$ (0.49)
Income (loss) from discontinued operations attributable to Arrowhead common shareholders	0.68	(0.41)
Net loss attributable to Arrowhead shareholders	$ (0.40)	$ (0.90)
Weighted average shares outstanding	7,830,407	6,434,245

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, 2011

	Common Stock				Accumulated		
	Shares	Amount	Additional Paid-in Capital	Subscription Receivable	Deficit during the Development Stage	Noncontrolling interest	Totals
Initial Issuance of Stock:							
Common stock & warrants issued for cash @ $0.01 per unit	300,000	$ 3,000	$	$	$	$	$ 3,000
Common stock & warrants issued for cash @ $10.00 per unit	168,000	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)
Balance at September 30, 2003	**468,000**	**4,680**	**1,510,320**		**(95,238)**		**1,419,762**
Exercise of stock options	7,500	75	14,925				15,000
Common stock & warrants issued for cash @ $10.00 per unit	47,500	475	474,525				475,000
Common stock & warrants issued for marketable securities @ $10.00 per unit	50,000	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 @ $15.00 per unit	660,879	6,609	9,906,573				9,913,182
Common stock issued in reverse acquisition	70,553	706	(151,175)				(150,469)
Common stock issued as a gift for $10.90 per share	15,000	163	162,587				162,750
Common stock and warrants issued as stock issuance cost @ $15.00 per unit	35,623	356	533,988				534,344
Stock issuance cost charged to additional paid-in capital			(991,318)				(991,318)
Exercise of stock option @ $2.00 per share	7,500	75	14,925				15,000
Exercise of stock options @ $10.00 per share	600	6	5,994				6,000
Stock-based compensation			175,653				175,653
Net loss for the year ended September 30, 2004					(2,528,954)	1,777,699	(751,255)

Balance at September 30, 2004	**1,363,155**	**13,645**	**12,059,997**	**(2,624,192)**	**1,777,699**	**11,227,149**
Exercise of warrants @ $15.00 per share	1,381,289	13,813	20,705,522			20,719,335
Exercise of stock options @ $10.00 per share	2,500	25	24,975			25,000
Common stock issued to purchase Insert Therapeutics share @ $39.80 per share	50,226	502	1,999,498			2,000,000
Common stock issued for services	1,250	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)	121,491	(6,733,427)
Balance at September 30, 2005	**2,798,419**	**27,997**	**35,578,580**	**(9,479,110)**	**1,899,190**	**28,026,657**
Exercise of stock options	11,579	116	341,421			341,537
Common stock issued @ $48.80 per share	20,485	205	999,795			1,000,000
Common stock issued @ $38.40 per share	1,500	15	57,585			57,600
Common stock issued @ $35.00 per share	559,000	5,590	19,539,410			19,545,000
Common stock issued @ $59.10 per share	2,536	25	149,975			150,000
Common stock issued to purchase Calando Pharmaceuticals, Inc. @ $51.70 per share	20,838	208	1,077,125			1,077,333
Stock-based compensation			1,369,478			1,369,478
Net loss for the year ended September 30, 2006				(18,997,209)	(964,752)	(19,961,961)
Balance at September 30, 2006	**3,414,359**	**34,156**	**59,113,369**	**(28,476,319)**	**934,438**	**31,605,644**
Exercise of stock options	18,616	186	434,541			434,727
Common stock issued @ $57.80 per share, net	284,945	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. @ $37.70 per share	143,122	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)	(781,829)	(30,712,947)
Balance at September 30, 2007	**3,861,042**	**38,622**	**84,672,783**	**(58,407,437)**	**152,609**	**26,456,577**
Exercise of stock options	10,536	106	289,921			290,027
Common stock issued at approximately $18.00 per share, net	386,399	3,867	6,956,718			6,960,585
Arrowhead s increase in proportionate share of			1,720,962			1,720,962

Unidym s equity						
Common stock issued @ $27.20 per share to Rice University	5,000	50	135,950			136,000
Common stock issued @ $28.30 per share to purchase shares of Unidym, Inc.	7,055	71	199,929			200,000
Common stock issued @ $29.50per share to purchase MASA Energy, LLC	10,505	105	309,895			310,000
Common stock issued @ $21.90 per share to Unidym for the acquisition of Nanoconduction	11,416	114	249,886			250,000
Common stock issued @ $21.80 per share	1,500	15	32,685			32,700
Stock-based compensation			3,187,397			3,187,397
Net loss for the year ended September 30, 2008				(27,089,030)	(152,609)	(27,241,639)
Balance at September 30, 2008	**4,293,452**	**42,950**	**97,756,126**	**(85,496,467)**		**12,302,609**
Common Stock issued @ $5.50 per share to Unidym stockholder in exchange for Unidym s shares	205,839	2,059	1,131,617			1,133,676
Common Stock issued @ $5.20 per share to TEL Ventures in exchange for Unidym s shares	222,222	2,222	1,156,111			1,158,333
Reclassification of former Unidym mezzanine debt to equity			2,000,000			2,000,000
Arrowhead s increase in proportionate share of Calando s equity			2,120,250			2,120,250
Common stock issued @ $3.00 per share	919,664	9,197	2,749,796			2,758,993
Change in percentage ownership in subsidiary			16,297			16,297
Stock-based compensation			2,676,170			2,676,170
Issuance of Preferred Stock for Subscription in Unidym			300,000	(300,000)		
Amortization of discount on Unidym Series D Preferred Stock			163,960	(163,960)		
Net loss for the year ended September 30, 2009				(19,308,392)		(19,308,392)
Balance at September 30, 2009	**5,641,177**	**56,428**	**110,070,327**	**(300,000)**	**(104,968,819)**	**4,857,936**
Exercise of stock options	688	7	7,624			7,631
Issuance of Preferred Stock for Subscription in Unidym				300,000		300,000
Issuance of Unidym s common stock to minority shareholders			245,345		54,655	300,000
Common stock issued @ $6.30 per share	508,343	5,083	3,217,813			3,222,896
Common stock issued @ $13.12 per share	659,299	6,593	3,692,078			3,698,671

Common Stock issued to Calando stockholders in exchange for Calando s shares	122,000	1,220	(160,667)			159,447	
Common Stock issued to Unidym stockholders in exchange for Unidym s shares	15,318	153	(1,435)			1,282	
Stock-based compensation			1,582,149				1,582,149
Exercise of warrants	225,189	2,251	1,063,600			200	1,066,051
Net loss for the year ended September 30, 2010					(5,774,048)	(1,182,990)	(6,957,038)
Balance at September 30, 2010	**7,172,014**	**71,735**	**119,716,834**		**(110,742,867)**	**(967,406)**	**8,078,296**
Exercise of warrants	8,656	87	43,192				43,279
Exercise of stock options	2,700	27	13,857				13,884
Divestiture of Unidym						254,275	254,275
Issuance of preferred stock in subsidiary			1,618,509				1,618,509
Change in percentage of ownership in subsidiary			(849,707)			849,707	
Stock-based compensation			1,404,640				1,404,640
Common stock issued @ $3.80 per share	1,458,917	14,574	4,629,110				4,643,684
Issuance of Common Stock for Subscription			900,000	(900,000)			
Net loss for the year ended September 30, 2011					(3,128,885)	(363,514)	(3,492,399)
Balance at September 30, 2011	**8,642,286**	**$ 86,423**	**$ 127,476,435**	**$ (900,000)**	**$ (113,871,752)**	**$ (226,938)**	**12,564,168**

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 Statements of Cash Flows

	Year ended September 30,		
	2011	2010	May 7, 2003 (Date of inception) to Septemper 30, 2011
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss)	$ (3,492,399)	$ (6,957,038)	$ (131,542,282)
Net (income) loss attributable to nonconrolling interests	363,514	1,182,990	17,834,490
Net loss attributable to Arrowhead	(3,128,885)	(5,774,048)	(113,707,792)
(Income) loss from discontinued operations	(5,292,609)	2,645,051	42,837,974
Realized and unrealized (gain) loss on investments	261,218		(821,045)
(Gain) loss from sale of subsidiary			(306,344)
Loss on sale/donation of fixed assets			127,088
Stock issued as gift			298,750
Stock issued for professional services	193,885		442,882
Stock issued for in-process research and development			13,166,347
Change in value of derivatives	(1,133,127)	(1,761,385)	(2,894,512)
Purchased in-process research and development - Nanoconduction			2,685,208
Stock-based compensation	1,376,921	1,424,293	12,340,064
Depreciation and amortization	267,977	277,650	5,660,311
Amortization (accretion) of note discounts, net	(7,938)		(7,938)
Gain on sale of stock in subsidiary			(2,292,800)
Non-cash (gain) loss from equity investment	163,180	219,540	723,253
Noncontrolling interest	(363,514)	(1,182,990)	(17,834,490)
Gain on renegotiation of accrued severance			(726,500)
Changes in operating assets and liabilities:			
Receivables			(62,815)
Other receivables	(736,253)	(872,128)	(1,604,963)
Prepaid expenses	99,006	110,152	(142,568)
Other current assets	18,473	(114,833)	(96,360)
Deposits		60,105	(36,795)
Accounts payable	157,079	(203,253)	206,434
Accrued expenses	452,843	110,873	534,540
Accrued severance and other liabilities	15,751	7,556	974,365
NET CASH USED IN OPERATING ACTIVITIES OF CONTINUING OPERATIONS	(7,655,993)	(5,053,417)	(60,537,706)
CASH FLOWS FROM INVESTING ACTIVITIES OF CONTINUING OPERATIONS:			
Purchase of marketable securities - US Treasury Bills			(18,575,915)
Purchase of property and equipment	(9,674)		(3,565,599)
Purchase of MASA Energy, LLC			(250,000)
Minority equity investment			(2,000,000)
Cash paid for interest in Insert			(10,150,000)
Cash obtained from interest in Insert			10,529,594
Proceeds from sale of marketable securities - US Treasury Bills			18,888,265
Proceeds from sale of investments	1,534,687		2,804,600
Proceeds from sale of subsidiaries			359,375

Proceeds from sale of fixed assets			142,375
Payment for patents			(303,440)
Restricted cash			50,773
Cash transferred in sale of subsidiary	(1,700,398)		(1,700,398)
NET CASH USED IN INVESTING ACTIVITIES OF CONTINUING OPERATIONS	(175,385)		(3,770,370)
CASH FLOWS FROM FINANCING ACTIVITIES OF CONTINUING OPERATIONS:			
Proceeds from issuance of Calando debt			2,516,467
Proceeds from sale of stock in subsidiary	1,718,932		20,894,100
Proceeds from issuance of common stock and warrants, net	4,507,389	12,165,156	95,294,780
NET CASH PROVIDED BY FINANCING ACTIVITIES OF CONTINUING OPERATIONS	6,226,321	12,165,156	118,705,347
Cash flows from discontinued operations:			
Operating cash flows	2,265,284	(2,645,860)	(46,003,507)
Investing cash flows		487,593	790,625
Financing cash flows		(126,534)	(1,677,000)
Net cash provided by (used in) discontinued operations:	2,265,284	(2,284,801)	(46,889,882)
NET INCREASE IN CASH	660,227	4,826,938	7,507,389
CASH AT BEGINNING OF PERIOD	6,847,162	2,020,224	
CASH AT END OF PERIOD	$ 7,507,389	$ 6,847,162	$ 7,507,389
Supplementary disclosures:			
Interest paid	$ 105,000	$	$ 230,419
Taxes paid	$ 742,500	$	$ 742,500

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 Statements of Cash Flows (Continued)

SUPPLEMENT NON CASH TRANSACTIONS

All Arrowhead share amounts have been adjusted to reflect the 1 for 10 reverse stock split effected on November 17, 2011.

On March 23, 2005, Arrowhead purchased 7,375,000 shares of Insert Therapeutics, Inc. common stock from two minority stockholders of Insert for 50,226 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 20,838 newly issued shares of Arrowhead Common Stock valued at $1,077,333 plus $850,667 in cash. The 20,838 shares of Arrowhead Common Stock were valued based on the average closing price of Arrowhead s Common Stock on NASDAQ the ten trading days immediately 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 143,122 shares of Arrowhead Common Stock with an estimated fair market value of $5,400,000 based on the average closing price of Arrowhead s Common Stock on NASDAQ the ten trading days immediately prior to March 24, 2007, as set forth in the Agreement and Plan of Merger among Unidym, Carbon Nanotechnologies, Inc., Arrowhead, and others.

On April 23, 2008, Arrowhead purchased 200,000 shares of the Common Stock of Unidym Inc., in exchange for 7,054 shares of Arrowhead Common Stock with an estimated fair market value of $200,000 based on the average closing price of Arrowhead s Common Stock on NASDAQ the ten trading days immediately prior to the date of the closing.

On April 29, 2008, Arrowhead purchased all of the membership units of MASA Energy, LLC for $560,000. The purchase price consisted of 10,504 shares of Arrowhead Common Stock with an estimated fair market value of $310,000 based on the average closing price of Arrowhead s Common Stock on NASDAQ the ten trading days immediately prior to the date of the closing, plus $250,000 in cash.

On August 8, 2008, Unidym acquired all of the outstanding stock of Nanoconduction, Inc. in exchange for 11,411 shares of Arrowhead stock with an estimated fair market value of $250,000.

On June 11, 2009, Arrowhead issued 132,462 shares of Common Stock with an estimated fair market value of $688,802 in exchange for an equal number of Series A Preferred Stock of Unidym, with minority stockholders of Unidym.

On June 25, 2009, Arrowhead issued 194,444 shares of Common Stock with an estimated fair market value of $972,222 in exchange for an equal number of Series C Preferred Stock of Unidym, with a minority stockholder of Unidym.

On September 22, 2009, Arrowhead issued 9,149 shares of Common Stock with an estimated fair market value of $46,662 in exchange for an equal number of Series A Preferred Stock of Unidym with a minority stockholder of Unidym.

On September 28, 2009, Arrowhead issued 64,227 shares of Common Stock with an estimated fair market value of $398,209 in exchange for 5,574 shares of Series A Preferred Stock and 636,699 shares of Series C Preferred Stock of Unidym, with several minority stockholders of Unidym.

On September 30, 2009, Arrowhead issued 27,777 shares of Common Stock with an estimated fair market value of $186,111 in exchange for an equal number of Series C-1 Preferred Stock of Unidym, with a minority stockholder of Unidym.

In October and November 2009, Arrowhead issued 15,317 shares of Common Stock with an estimated fair market value of $47,485 in exchange for an equal number of shares of Series C Preferred Stock of Unidym, with several minority stockholders of Unidym.

In October and November 2009, Arrowhead issued 114,000 shares of Common Stock with an estimated fair market value of $706,800 in exchange for 2,850,000 shares of Calando s common stock, with several minority stockholders of Calando. In conjunction with the exchange, Arrowhead also issued 24,000 Warrants to purchase Arrowhead Common Stock in exchange for 600,000 Warrants to purchase Calando common stock.

In February 2010, Arrowhead issued 8,000 shares of Common Stock and 2,400 warrants to purchase Arrowhead Common Stock, at an exercise price of $5.00, to several Calando shareholders, in exchange for 200,000 shares of Calando common stock and 60,000 warrants to purchase Calando common stock.

Table of Contents

In March 2010, a warrant holder exercised 24,788 warrants to purchase Arrowhead Common Stock, in a cashless exercise, whereby Arrowhead issued to the warrant holder 12,870 shares of Arrowhead Common Stock.

In September 2010, Arrowhead issued warrants to purchase 390,625 shares of Arrowhead Common Stock, at an exercise price of $5.00, to two Calando shareholders, in exchange for 1,562.5 shares of Series A Preferred Stock of Calando Pharmaceuticals, Inc.

Table of Contents

Arrowhead Research Corporation

(A Development Stage Company)

Notes to Consolidated Financial Statements

September 30, 2011

Unless otherwise noted, (1) the term Arrowhead refers to Arrowhead Research Corporation, a Delaware corporation, (2) the terms the Company, we, us, and our, refer to the ongoing business operations of Arrowhead and its Subsidiaries, whether conducted through Arrowhead or a subsidiary of Arrowhead, (3) the term Subsidiaries refers collectively to Arrowhead Madison Inc. (Madison) , Calando Pharmaceuticals, Inc. (Calando), Ablaris Therapeutics, Inc. (Ablaris), Agonn Systems, Inc. (Agonn), and Tego Biosciences Corporation (Tego) as well as our former subsidiary, Unidym, Inc. (Unidym), which was divested in January 2011, (4) the term Minority Investments refers collectively to Nanotope, Inc. (Nanotope) and Leonardo Biosystems, Inc. (Leonardo) in which the company holds a less than majority ownership position, and (5) the term Common Stock refers to Arrowhead s Common Stock and the term stockholder(s) refers to the holders of Arrowhead Common Stock.

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

Nature of Business and Going Concern

Arrowhead Research Corporation is a nanomedicine company developing innovative therapies at the interface of biology and nanoengineering to cure disease and improve human health. Arrowhead has one of the most advanced and broadest technology platforms for therapeutics based on RNA interference (RNAi), including access to five different RNAi delivery systems and the three primary small interfering RNA (siRNA) structures in commercial development for RNAi therapeutics. This broad technology platform enables optimization of siRNA therapeutic candidates for delivery based on siRNA chemistry, tissue type, disease state, and target [gene] and siRNA type and chemistry on a target-by-target basis. Arrowhead is leveraging its in house R&D expertise and capabilities, as well as a broad intellectual property portfolio for RNAi therapeutics, to attract development partnerships with other pharmaceutical and biotech companies committed to bringing RNAi therapeutics to market, as well as continuing the preclinical and clinical development its own clinical candidates. Arrowhead s non-RNAi development programs include a unique therapeutic candidate that shows promise for the treatment of obesity and advanced bioactive materials for the regeneration of injured tissues.

Arrowhead operates a wholly-owned subsidiary, Arrowhead Madison, which is focused on the development of RNAi therapeutics, two majority owned subsidiaries, Calando, a leader in delivering small interfering RNAs for gene silencing, and Ablaris, an anti-obesity therapeutics company, and has minority investments in Nanotope, a regenerative medicine company and Leonardo, a multistage drug delivery company.

Liquidity

Arrowhead has historically financed its operations through the sale of securities of Arrowhead and its Subsidiaries. Development activities at our Subsidiaries has required significant capital investment since the Company s inception and we expect our current portfolio companies to continue to require cash investment in fiscal 2012 and beyond to continue development.

At September 30, 2011, the Company had $7.5 million in cash to fund operations. During the year ended September 30, 2011, the Company s cash position increased by $0.7 million, primarily due to the issuance of Common Stock on September 30, 2011. This financing generated $6.0 million of which $4.4 million was received in fiscal 2011, while the balance is to be received in fiscal 2012. This inflow was mostly offset by operational spending at Arrowhead, Calando and Ablaris during fiscal 2011. In January 2011, Arrowhead sold its ownership interest in Unidym; therefore the cash burn associated with Unidym ceased in January 2011. As a result of the sale of Unidym, the Company received $2.5 million in stock of the acquirer, Wisepower Co. Ltd. (Wisepower) and a $2.5 million convertible bond from Wisepower, of which approximately $200,000 is owed to a third party, who was a minority investor in Unidym. As of September 30, 2011, the Company sold approximately 60% of the stock for approximately $1.5 million. The remaining shares were sold in October 2011, generating proceeds of $0.5 million. The convertible bond with a face value of $2.5 million, is convertible into Wisepower common stock beginning on January 17, 2012 at a price of $2.00 per share, and can be redeemed on January 17, 2013, and at which time would represent an additional source of liquidity for the company. In October 2011, the Company raised an additional $3.9 million through the issuance of preferred stock and Common Stock. The Company also entered into a facility whereby it has the ability to draw capital up to $15 million, and may do so depending on cash needs and market conditions.

On October 21, 2011, Arrowhead completed the acquisition of certain RNAi assets from Hoffmann-La Roche Inc. and F Hoffmann-La Roche Ltd., including intellectual property and a research and development facility based in Madison, Wisconsin. At the time of the acquisition, the facility had 41 employees. Due to the costs associated with the facility, including personnel costs, rent, research and development expenses, and other costs, it is expected that cash expenses will increase significantly in 2012 and beyond as the Company accelerates its preclinical and clinical development efforts.

Table of Contents

Based upon the Company s cash on hand, other sources of liquidity, as described above, and based upon the Company s operating plan, the Company s management anticipates that the Company will be able to satisfy the cash requirements of its operations through at least the next twelve months. The Company anticipates that further equity financings, and/or asset sales and license agreements will be necessary to continue to fund operations in the future.

Summary of Significant Accounting Policies

Principles of Consolidation The consolidated financial statements include the accounts of Arrowhead and its Subsidiaries, Calando, Ablaris, Tego, Agonn, and until its disposition in January 2011, Unidym. Prior to April 2008, Arrowhead s Subsidiaries included Insert Therapeutics, Inc. (Insert), which was merged with Calando in April 2008. The merged entity is majority-owned by Arrowhead and continues to operate under the name of Calando. On January 17, 2011, Arrowhead sold its interests in Unidym to Wisepower, and on December 23, 2009, Tego completed a sale of its assets to Luna Innovations, Inc. Unidym and Tego results are included in the Income (Loss) from Discontinued Operations. Income (Loss) from Discontinued Operations also includes Aonex Technologies, Inc. (Aonex), sold in May 2008 and Nanotechnica, Inc. (Nanotechnica), dissolved in June 2005. All significant intercompany accounts and transactions are eliminated in consolidation, and noncontrolling interests are accounted for in the Company s financial statements.

Basis of Presentation and 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 valuing the stock of the Subsidiaries, assumptions to calculate stock-based compensation expense, allowance for doubtful accounts, deferred tax asset valuation allowance, derivative assets and liabilities, noncontrolling interest and useful lives for depreciable and amortizable assets. Actual results could differ from those estimates. Additionally, certain reclassifications have been made to prior period financial statements to conform to the current period presentation. In the opinion of management, all adjustments, including normal recurring accruals considered necessary for a fair presentation, have been included.

Cash and Cash Equivalents The Company considers all liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

Concentration of Credit Risk The Company maintains checking accounts for Arrowhead and separate accounts for each Subsidiary at any of three financial institutions. These accounts are insured by the Federal Deposit Insurance Corporation (FDIC) for up to $250,000 per account. The Company has two wealth management accounts at the same financial institutions that invest in higher yield money market accounts and in government securities. Management believes the Company is not exposed to significant credit risk due to the financial position of the depository institution in which these deposits are held.

Property and Equipment Property and equipment are recorded at cost. Depreciation of property and equipment is recorded using the straight-line method over the respective useful lives of the assets ranging from three to seven years. Leasehold improvements are amortized over the lesser of the expected useful life or the remaining lease term.

Intellectual Property At September 30, 2011, intellectual property consisted of patents and patent applications licensed or purchased in the gross amount of $3,349,563. The accumulated amortization of patents totaled $1,618,352 at September 30, 2011. Patents are amortized over three years to twenty years. The weighted average original amortization period is twelve years. The weighted average remaining amortization period is seven years. Amortization is expected to be $241,808 for fiscal years 2012, 2013, 2014, 2015 and 2016, and $522,174 thereafter. Long-lived assets, such as property, equipment and intangible assets subject to amortization are reviewed for impairment whenever events or circumstances indicate that the carrying amount of these assets may not be recoverable. In reviewing for impairment, we compare the carrying value of such assets to the estimated undiscounted future cash flows expected from the use of the assets and their eventual disposition. When the estimated undiscounted future cash flows are less than their carrying amount, an impairment loss is recognized equal to the difference between the assets fair value and their carrying value.

Equity Investments Arrowhead has a non-controlling equity investment in Nanotope, a privately held biotechnology company, which is recorded in Other Assets. This investment is carried at cost less Arrowhead s proportionate share of Nanotope s operating loss for the period since investment. Arrowhead utilizes the equity method of accounting as it owns more than 20% of the voting equity and has the ability to exercise significant influence over this company. This investment is risky as the technologies and markets for Nanotope s products are still in the development stage, commercially viable products may never be developed, and markets for such products may never be significant. Arrowhead could lose its entire investment in Nanotope. Arrowhead monitors this investment for impairment and makes appropriate reductions in carrying value when necessary.

Table of Contents

Minority Equity Investments The Company s minority equity investment in Leonardo, a privately held biotechnology company, is recorded in Other Assets. This investment is accounted for under the cost method of accounting as Arrowhead owns less than 20% of the voting equity and only has the ability to exercise nominal, not significant, influence over this company. This investment is risky as the technologies and markets for Leonardo s products are still in the development stage, commercially viable products may never be developed, and markets for such products may never be significant. Arrowhead could lose its entire investment in Leonardo. Arrowhead monitors this investment for impairment and makes appropriate reductions in carrying value when necessary.

Noncontrolling Interests in Majority-Owned Subsidiaries Operating losses applicable to majority-owned Calando, Ablaris and Unidym have periodically exceeded the noncontrolling interests in the equity capital of either Subsidiary. Such excess losses applicable to the noncontrolling interests have been and are borne by the Company as there is no obligation of the noncontrolling interests to fund any losses in excess of their original investment. There is also no obligation or commitment on the part of the Company to fund operating losses of any Subsidiary whether wholly-owned or majority-owned. The Company allocates the noncontrolling interest s share of net loss in excess of the noncontrolling interest s initial investment in accordance with FASB ASC 810-10, which was effective for the Company on October 1, 2009.

When there is a change in the Company s proportionate share of a development-stage Subsidiary resulting from additional equity transactions in a Subsidiary, the change is accounted for as an equity transaction in consolidation. To the extent that the increase in the calculated value of the Company s interest in the equity of the Subsidiary exceeds the Company s investment in the offering, that increase in value is referred to as the Company s increase in its proportionate share of the Subsidiary s equity and the amount is recorded as an increase in the Company s Additional Paid-in Capital.

Revenue Recognition Revenue from product sales are recorded when persuasive evidence of an arrangement exists, title has passed and delivery has occurred, a price is fixed and determinable, and collection is 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 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 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 up-front license fees and milestones and product royalties are 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.

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.

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 ASC 730-10.

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 to purchase Common Stock of the Company.

Stock-Based Compensation The Company accounts for share-based compensation arrangements in accordance with FASB ASC 718, which requires the measurement and recognition of compensation expense for all share-based payment awards to be based on estimated fair values. We use the Black-Scholes option valuation model to estimate the fair value of our stock options at the date of grant. The Black-Scholes option valuation model requires the input of subjective assumptions to calculate the value of stock options. We use historical data among other information to estimate the expected price volatility and the expected forfeiture rate.

Income Taxes The Company accounts for income taxes under the liability method, which requires the recognition of deferred income 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 period 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 income tax assets to the amount expected to be realized. The provision for income taxes, if any, represents the tax payable for the period and the change in deferred income tax assets and liabilities during the period.

Table of Contents

Recently Issued Accounting Standards

In June 2010, the FASB issued ASU No. 2010-17, *Revenue Recognition Milestone Method (Topic 605): Milestone Method of Revenue Recognition.* This ASU codifies the consensus reached in EITF Issue No. 08-9, Milestone Method of Revenue Recognition. The amendments to the Codification provide guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for research or development transactions. Consideration that is contingent on achievement of a milestone in its entirety may be recognized as revenue in the period in which the milestone is achieved only if the milestone is judged to meet certain criteria to be considered substantive. Milestones should be considered substantive in their entirety and may not be bifurcated. An arrangement may contain both substantive and nonsubstantive milestones, and each milestone should be evaluated individually to determine if it is substantive. This guidance was adopted effective October 1, 2010. The adoption of this guidance did not have a material impact on our consolidated financial statements.

In January 2010, the FASB issued Accounting Standards Update ASU No. 2010-06, Fair Value Measurements and Disclosures (Topic 820) Improving Disclosures about Fair Value Measurements . This guidance requires new disclosures related to recurring and nonrecurring fair value measurements. The guidance requires disclosure of transfers of assets and liabilities between Level 1 and Level 2 of the fair value measurement hierarchy, including the reasons and the timing of the transfers and information on purchases, sales, issuance, and settlements on a gross basis in the reconciliation of the assets and liabilities measured under Level 3 of the fair value measurement hierarchy. The adoption of this guidance is effective for interim and annual reporting periods beginning after December 15, 2009. We have adopted this guidance in the financial statements presented herein, which did not have a material impact on our consolidated financial position or results of operations.

In October 2009, the FASB issued ASU 2009-13, which amends ASC Topic 605, *Revenue Recognition.* This new accounting guidance relates to the revenue recognition of multiple element arrangements. The new guidance states that, if vendor specific objective evidence or third party evidence for deliverables in an arrangement cannot be determined, companies will be required to develop a best estimate of the selling price for separate deliverables and allocate arrangement consideration using the relative selling price method. We adopted this guidance as of January 1, 2010 on a prospective basis. The adoption of this guidance did not have a material impact on our consolidated financial statements.

In October 2009, the FASB issued authoritative guidance on multiple-deliverable revenue arrangements, ASC 605-25. This guidance amends the existing criteria for separating consideration received in multiple-deliverable arrangements and requires that arrangement consideration be allocated at the inception of the arrangement to all deliverables based on their relative selling price. The guidance establishes a hierarchy for determining the selling price of a deliverable which is based on vendor-specific objective evidence, third-party evidence, or management estimates. Expanded disclosures related to multiple-deliverable revenue arrangements are also required. This guidance is effective for the Company beginning fiscal year 2011. We have adopted this guidance in the financial statements presented herein, which did not impact our consolidated financial position or results of operations.

NOTE 2. ***INVESTMENT IN SUBSIDIARIES***

Calando Pharmaceuticals, Inc. (formerly known as Insert Therapeutics, Inc.)

On April 17, 2008, Calando merged with and into Insert, with Insert as the surviving company. Prior to the merger, Arrowhead invested an aggregate of $23.2 million in Calando through equity and debt financings. As a condition of the merger, the Preferred Stock of each of Calando and Insert was converted into common stock and the loans were converted to equity. As a result of the merger, shares of Insert common stock were issued to the stockholders of the former Calando, and Insert changed its name to Calando Pharmaceuticals, Inc.

On November 26, 2008, Calando entered into Unsecured Convertible Promissory Note Agreements (Notes) for $2.5 million with accredited investors and Arrowhead, which invested $200,000 in the Notes offering. Arrowhead subsequently invested an additional $600,000 in the same offering. Subsequently, most of the Notes were converted to equity as described below. At September 30, 2011 and 2010, one Note for $500,000 remained outstanding. The Notes had a 10% interest rate and matured on November 26, 2010. The $500,000 remaining Note is convertible into Calando common stock and can be redeemed for two times their face value plus interest in the event of a sale of Calando or at maturity. To facilitate this investment in Calando, Arrowhead subordinated a series of 6% simple interest loans and advances totaling approximately $5.3 million of principal plus interest.

Effective June 23, 2009, to facilitate licensing transactions with a third party, holders (including Arrowhead) of an aggregate of $2.9 million of the Notes, including accrued but unpaid interest, converted the principal and accrued interest into newly authorized Calando Series A Preferred Stock. The non-voting Series A Preferred Stock has a liquidation preference of 2.5 times the Series A Original Issue Price of $1,000 per share and is convertible into common stock at a conversion price of $0.576647 per share. Arrowhead converted all of its Notes representing a principal balance of $800,000, plus accrued but unpaid interest, into 829 shares of Series A Preferred Stock. One third-party Note for $500,000 plus interest remains outstanding.

As of September 30, 2011, Arrowhead had a 10% simple-interest working promissory note and advances outstanding to Calando totaling $907,501, which are payable upon demand.

Table of Contents

In fiscal 2010, Arrowhead issued 122,000 shares of its Common Stock in exchange for 3,050,000 shares of Calando common stock, with several minority stockholders of Calando. In conjunction with this exchange, Arrowhead also issued 26,400 warrants to purchase Arrowhead Common Stock in exchange for 660,000 warrants to purchase Calando common stock.

In January 2011, Arrowhead invested $9.1 million, through a cash investment of $1.0 million and the conversion of $8.1 million intercompany debt, acquiring newly issued Calando Series B and Series C preferred stock.

As of September 30, 2011, Arrowhead owned 79% of the outstanding shares of Calando and 74% on a fully diluted basis.

Ablaris Therapeutics, Inc.

Ablaris was formed and began operations in the first quarter of fiscal 2011 through the licensing of certain anti-obesity technology developed at the MD Anderson Cancer Center at the University of Texas. During the year ended September 30, 2011, Ablaris raised $2.9 million in cash, of which $1.3 million was invested by Arrowhead and $1.6 million was invested by outside investors, through the issuance of Series A Preferred stock.

As of September 30, 2011, Arrowhead owned 64% of the outstanding shares of Ablaris and 64% on a fully diluted basis.

Nanotope, Inc.

Nanotope is developing advanced nanomaterials for the treatment of spinal cord injuries, cartilage regeneration and wound healing. In April 2008, Arrowhead acquired a 5.8% ownership interest in Nanotope. In July and September 2008, Arrowhead acquired 1,801,802 shares of Series B Preferred Stock of Nanotope for two payments of $1 million each, increasing Arrowhead s ownership interest in Nanotope to approximately 23%. Since inception, Nanotope s revenue has been negligible. Operating expenses for the twelve months ended September 30, 2011 were approximately $1,161,000. Nanotope s net loss for the twelve months ended September 30, 2011 was $709,000. Arrowhead accounts for its investment in Nanotope using the equity method of accounting. As of September 30, 2011, Nanotope had indebtedness to Arrowhead in the amount of $1,213,000, included in other receivables, which is expected to be repaid or converted to equity.

Summarized financial information for Nanotope, Inc. is as follows:

	September 30, 2011	September 30, 2010
Current assets	$ 21,000	$ 16,000
Non-current assets	85,000	130,000
Liabilities	1,255,000	585,000
Equity	(1,149,000)	(439,000)

	For the year ended September 30, 2011	For the year ended September 30, 2010
Revenue	$ 515,000	$ 9,000
Operating expenses	1,161,000	975,000
Net Loss	$ (709,000)	$ (955,000)

	For the year ended September 30, 2011	For the year ended September 30, 2010
Cash flows used in operating activities	$ (705,000)	$ (329,000)
Cash flows used in investing activities	(31,000)	(7,000)
Cash flows provided by financing activities	746,000	

Leonardo Biosystems, Inc.

Leonardo is developing a drug-delivery platform technology based on novel methods of designing spheroid porous silicon microparticles that selectively accumulate in tumor vasculature. In April 2008, Arrowhead acquired a 6.13% ownership interest in Leonardo. Arrowhead accounts

for its investment in Leonardo using the cost method of accounting. As of September 30, 2011, Leonardo had indebtedness to Arrowhead in the amount of $396,000, included in other receivables, which is expected to be repaid or converted to equity. As of September 30, 2011, Arrowhead s ownership interest in Leonardo was 5%.

Table of Contents

NOTE 3. ***DISCONTINUED OPERATIONS***

Unidym, Inc.

Founded by Arrowhead in 2005, Unidym is developing electronic applications of carbon nanotubes. In line with the Company s strategy to focus on nanomedicine, Arrowhead sold its ownership interest in Unidym to Wisepower in January 2011. The consideration included $5.0 million in Wisepower stock and bonds, a percentage of certain revenue streams, as well as contingent payments up to $140 million based on revenue milestones over a ten-year period.

In conjunction with the disposition of Unidym, the gain on the sale and the results of historical operations are recorded as discontinued operations in the Company s Statements of Operations. Additionally, the cash flows from Unidym are reflected separately as cash flows from discontinued operations. Potential future cash flows as discussed above will be reflected as a part of cash flows from discontinued operations in the Company s Consolidated Statements of Cash Flows.

Tego Biosciences, Inc.

On April 20, 2007, Tego, a 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.

On December 23, 2009, Tego completed the sale of all of its non-cash intellectual property assets to Luna Innovations, Inc. The consideration included an upfront purchase price of $350,000 and reimbursements of patent and license expenses of $80,000, as well as contingent payments based on milestones and royalties for each fullerene product developed by Luna and covered by Tego intellectual property.

Due to the sale of substantially all of Tego s assets, the operations of Tego ceased and the gain on the sale and the results of historical operations are recorded as discontinued operation in the Company s Statements of Operations. Additionally, the cash flows from Tego are reflected separately as cash flows from discontinued operations. Potential future cash flows associated with the Luna APA, as discussed above, will be reflected as a part of cash flows from discontinued operations in the Company s Consolidated Statements of Cash Flows.

NOTE 4. ***NOTES PAYABLE***

On November 26, 2008, Calando entered into Unsecured Convertible Promissory Note Agreements (Notes) for $2.5 million with accredited investors and Arrowhead, which invested $200,000 in the Notes offering. Arrowhead subsequently invested an additional $600,000 in the same offering. Except for one Note in the principal amount of $500,000, all Notes and accrued interest were converted into a total of 2,950 shares of Calando Series A Preferred Stock on June 23, 2009. The remaining Note had a 10% interest rate, matured on November 26, 2010, and was renegotiated and extended until November 26, 2013. The terms of the new note include a 10% interest rate and require two times principal payment upon certain events as defined in the note and at maturity.

NOTE 5. ***STOCKHOLDERS EQUITY***

At September 30, 2011, the Company had a total of 150,000,000 shares of capital stock authorized for issuance, consisting of 145,000,000 shares of Common Stock, par value $0.001, and 5,000,000 shares of Preferred Stock, par value $0.001. On November 17, 2011, the Company effected a reverse stock split in the ratio of 1 for 10, all share and per share data below reflects an adjustment for the reverse stock split.

At September 30, 2011, 8,642,286 shares of Common Stock were outstanding. At September 30, 2011, 153,200 shares and 575,896 shares were reserved for issuance upon exercise of options granted under Arrowhead s 2000 Stock Option Plan and 2004 Equity Incentive Plan, respectively.

On December 11, 2009, the Company sold an aggregate of 508,343 units in a private placement transaction with accredited investors. Each unit consisted of one share of Arrowhead Common Stock and a warrant to purchase an additional share of Common Stock exercisable at $5.09 per share. The unit price was $6.34, based upon the closing bid price on the Company s Common Stock on December 11, 2009, which was $5.09, plus $1.25 for the purchase of the warrant. The warrants became exercisable on June 12, 2010 and remain exercisable until December 11, 2014. The market conditions required for redemption provided for in the warrants has been met and the warrants are eligible for redemption by the Company. Gross proceeds of the offering were approximately $3.2 million.

On June 17, 2010, the Company sold an aggregate of 659,298 units at a price of $13.12 per unit in a registered offering to institutional and accredited investors. Each unit consisted of one share of Arrowhead Common Stock and a warrant to purchase 0.5 share of Common Stock

exercisable at $16.50 per share. The warrants contain an antidilution provision which can result in an adjustment to the exercise price under certain circumstances, and the current exercise price is $3.70. Gross proceeds from the offering were $8.65 million before deducting placement agent commission and other offering expenses of approximately $800,000.

Table of Contents

On September 30, 2011, the Company sold 1,458,917 shares of Common Stock at a price of $3.80 per share. Cash proceeds received in fiscal 2011 were $4.6 million, $0.9 million are expected to be received in fiscal 2012, and $0.2 million related to a reduction in professional fees.

The following table summarizes information about warrants outstanding at September 30, 2011:

Exercise prices	Number of Warrants	Remaining Life in Years
$70.60	94,896	5.6
$20.00	386,399	1.9
$5.00	1,163,033	3.2
$5.10	461,024	3.2
$3.80	329,649	4.2
Total warrants outstanding	2,435,001	

NOTE 6. ***LEASES***

In April 2011, the Company s corporate headquarters lease expired, and the Company did not exercise its renewal option. The company is currently leasing temporary offices. The temporary offices are expected to be utilized for several months at a rental rate of approximately $8,000 per month. The current rental agreement is on a month-to-month basis and there were no long-term commitments at September 30, 2011. On October 21, 2011, Arrowhead acquired the RNAi operations from Roche, including its research facility in Madison, Wisconsin. Its lease expires on February 28, 2019; monthly rental expense is approximately $56,500.

Facility and equipment rent expense for the year ended September 30, 2011 and 2010 was $161,759 and $268,330, respectively. From inception to date, rent expense was $3,645,381. Rent expense related to Unidym, until its disposal in January 2011, is included as a part of income/loss from discontinued operations.

NOTE 7. ***STOCK-BASED COMPENSATION***

Arrowhead has two plans that provide for equity-based compensation. Under the 2000 Stock Option Plan, 153,200 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 970,443 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. As of September 30, 2011, there were options granted and outstanding to purchase 153,200 and 575,896 shares of Common Stock under the 2000 Stock Option Plan and the 2004 Equity Incentive Plan, respectively. During the year ended September 30, 2011, 20,000 options were granted under the 2004 Equity Incentive Plan. All share and per share data in this footnote has been adjusted to reflect the 1 for 10 reverse stock split effected on November 17, 2011.

The following tables summarize information about stock options:

	Number of Options Outstanding	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Balance At September 30, 2009	290,158	$ 17.35		
Granted	525,175	6.88		
Cancelled	(2,312)	11.10		
Exercised	(687)	11.10		

Balance At September 30, 2010	812,334		10.62		
Granted	20,000		5.86		
Cancelled	(100,539)		21.32		
Exercised	(2,699)		5.10		
Balance At September 30, 2011	729,096	$	9.03	7.0 years	$
Exercisable At September, 30, 2011	570,307	$	9.39	6.6 years	$

Table of Contents

Stock-based compensation expense for the years ended September 30, 2011 and 2010 was $1,404,430 and $1,582,149, respectively. For the year ended September 30, 2011 and 2010, $27,519 and $157,856, respectively, of this expense is included in discontinued operations, and the balance is included in Salary expense in the Company s consolidated statements of operations. There is no income tax benefit as the company is currently operating at a loss and an actual income tax benefit may not be realized. The result of the loss creates a timing difference, resulting in a deferred tax asset, which is fully reserved by a valuation allowance.

The fair value of the options granted by Arrowhead for the years ended September 30, 2011 and 2010 is estimated at $93,004 and $2,939,928, respectively. The aggregate fair value of options granted by Calando for the years ended September 30, 2011 is estimated at $33,870. No Calando options were issued during the year ended September 30, 2010. The intrinsic value of the options exercised during fiscal 2011 and 2010 was $3,666 and $6,875, respectively.

As of September 30, 2011, the pre-tax compensation expense for all unvested stock options at Arrowhead in the amount of approximately $1,091,513 will be recognized in our results of operations over a weighted average period of 2.4 years. As of September 30, 2011, the pre-tax compensation expense for all unvested stock options at Calando in the amount of approximately $69,183 will be recognized in our results of operations over a weighted average period of 2.8 years.

The fair value of each stock option award is estimated on the date of grant using the Black-Scholes option pricing model. 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. The determination of the fair value of each stock option is affected by our stock price on the date of grant, as well as assumptions regarding a number of highly complex and subjective variables. Because the Company s employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management s opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options. The assumptions used to value stock options are as follows:

	Year Ended September 30,	
	2011	2010
Dividend yield		
Risk-free interest rate	1.11% to 2.90%	2.00% to 3.42%
Volatility	100%	100%
Expected life (in years)	5.5 to 6.25	5 to 6.25
Weighted average grant date fair value per share of options granted	$4.70	$5.60

The dividend yield is zero as the Company currently does not pay a dividend.

The risk-free interest rate is based on the U.S. Treasury bond.

Volatility is estimated based on volatility average of the Company s Common Stock price.

NOTE 8. ***FAIR VALUE MEASUREMENTS & DERIVATIVE INSTRUMENTS***

The Company measures its financial assets and liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., exit price) in an orderly transaction between market participants at the measurement date. Additionally, the Company is required to provide disclosure and categorize assets and liabilities measured at fair value into one of three different levels depending on the assumptions (i.e., inputs) used in the valuation. Level 1 provides the most reliable measure of fair value while Level 3 generally requires significant management judgment. Financial assets and liabilities are classified in their entirety based on the lowest level of input significant to the fair value measurement. The fair value hierarchy is defined as follows:

Level 1 Valuations are based on unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 Valuations are based on quoted prices for similar assets or liabilities in active markets, or quoted prices in markets that are not active for which significant inputs are observable, either directly or indirectly.

Level 3 Valuations are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. Inputs reflect management s best estimate of what market participants would use in valuing the asset or liability at the measurement date.

Table of Contents

The following table summarizes fair value measurements at September 30, 2010 and September 30, 2011 for assets and liabilities measured at fair value on a recurring basis:

September 30, 2010:

	$2,408,522 Level I	**$2,408,522 Level II**	**$2,408,522 Level III**	**$2,408,522 Total**
Cash and cash equivalents	$ 6,847,162	$	$	$ 6,847,162
Derivative liabilities	$	$	$ 2,408,522	$ 2,408,522

September 30, 2011:

	Level I	**Level II**	**Level III**	**Total**
Cash and cash equivalents	$ 7,507,389	$	$	$ 7,507,389
Marketable securities	$ 634,585	$	$	$ 634,585
Derivative assets	$	$	$ 161,125	$ 161,125
Derivative liabilities	$	$	$ 944,980	$ 944,980

As part of the sale of Unidym in January 2011, Arrowhead received common stock in Wisepower, originally valued at $2.5 million, $100,000 of which is due to a third party. Arrowhead has the ability to sell the shares of stock in Wisepower, subject to certain limits on volume of sales over a nine-month period ending in October 2011. During the year ended September 30, 2011, Arrowhead sold approximately 60% of the original holdings; the remaining shares had a market value of $0.6 million at September 30, 2011, and were sold for $0.5 million in October 2011. The recorded value of the stock is adjusted to fair market value based on quotations from the KOSDAQ, a Korean stock exchange, and published foreign exchange rates. Marketable securities are included as part of other current assets in the Company s consolidated balance sheet.

As part of the sale of Unidym in January 2011, Arrowhead received a bond from Wisepower in the face amount of $2.5 million. The bond is convertible to Wisepower common stock beginning on January 17, 2012 at a price of $2.00 per share. The conversion feature is subject to derivative accounting as prescribed under ASC 815. Accordingly, the fair value of the conversion feature on the date of issuance was estimated using an option pricing model and recorded on the Company s consolidated balance sheet as a derivative asset. The fair value of the conversion feature is estimated at the end of each reporting period and the change in the fair value of the conversion feature is recorded as a nonoperating gain/loss as change in value of derivatives in Company s consolidated statement of operations. A portion of the bond is owed to a third party, as such the company records a derivative asset for the entire conversion feature and records a derivative liability for the portion related to the third party. The original fair value of the derivative relating to the third party was $26,310; the fair value at September 30, 2011 was $6,854. The loss from the change in value of the derivative asset, net of the derivative liability of $437,919 is reflected in the change in value of derivatives in the Company s consolidated statement of operations.

During the year ended September 30, 2011, the Company recorded a loss from the change in fair value of the derivative asset, net of $437,919. The assumptions used in valuing the derivative asset as of September 30, 2011 were as follows:

Risk free interest rate	0.4%
Expected life	2.3 Years
Dividend yield	none
Volatility	72%

The following is a reconciliation of the derivative asset for the year ended September 30, 2011:

Value at October 1, 2010	$
Receipt of instruments	618,500
Decrease in value	(457,375)

Net settlements	
Value at September 30, 2011	$ 161,125

As part of the equity financing on June 17, 2010, as described in Note 5, Arrowhead issued warrants to acquire up to 329,649 shares of Common Stock (the Warrants) which contain anti-dilution protection. Under the certain provisions of the Warrants, if, during the term of the Warrants, the Company issues Common Stock at a price lower than the exercise price of the Warrants, the exercise price of the Warrants would be reduced to the amount equal to the issuance price of the Common Stock. Because the Warrants have this feature, the Warrants are subject to derivative accounting as prescribed under ASC 815. Accordingly, the fair value of the Warrants on the date of issuance was estimated using an option pricing model and recorded on the Company s

Table of Contents

consolidated balance sheet as a derivative liability. The fair value of the Warrants is estimated at the end of each reporting period and the change in the fair value of the Warrants is recorded as a nonoperating gain or loss in the Company s consolidated statement of operations. During the year ended September 30, 2011, the Company recorded a gain from the change in fair value of the derivative liability of $1,501,289. The assumptions used in valuing the derivative liability as of September 30, 2011 were as follows:

Risk free interest rate	0.9%
Expected life	4.2 Years
Dividend yield	none
Volatility	100%

The following is a reconciliation of the derivative liability related to these warrants for through September 30, 2011:

Value at October 1, 2009	$
Receipt of instruments	4,169,907
Decrease in value	(1,761,385)
Net settlements	
Value at October 1, 2010	$ 2,408,522
Receipt of instruments	
Decrease in value	(1,501,289)
Net settlements	
Value at September 30, 2011	$ 907,233

In conjunction with the financing of Ablaris during the year ended September 30, 2011, Arrowhead sold exchange rights to certain investors whereby the investors have the right to exchange their shares of Ablaris for a prescribed number of Arrowhead shares based upon a predefined ratio. The exchange rights have a seven-year term. During the first year, the exchange right allows the holder to exchange one Ablaris share for 0.6 Arrowhead shares. This ratio declines to 0.4 in the second year, 0.3 in the third year and 0.2 in the fourth year. In the fifth year and beyond the exchange ratio is 0.1. Exchange rights for 675,000 Ablaris shares were sold during the year ended September 30, 2011, and remain outstanding at September 30, 2011. The exchange rights are subject to derivative accounting as prescribed under ASC 815. Accordingly, the fair value of the exchange rights on the date of issuance was estimated using an option pricing model and recorded on the Company s consolidated balance sheet as a derivative liability. The fair value of the exchange rights is estimated at the end of each reporting period and the change in the fair value of the exchange rights is recorded as a nonoperating gain or loss in the Company s consolidated statement of operations. During the year ended September 30, 2011, the Company recorded a gain from the change in fair value of the derivative liability of $69,758. The assumptions used in valuing the derivative liability as of September 30, 2011 were as follows:

Risk free interest rate	1.3%
Expected life	6.3 Years
Dividend yield	none
Volatility	100%

The following is a reconciliation of the derivative liability related to these exchange rights for the year ended September 30, 2011:

Value at October 1, 2010	$
Issuance of instruments	100,650
Change in value	(69,758)
Net settlements	
Value at September 30, 2011	$ 30,892

The carrying amounts of the Company s other financial instruments, which include accounts receivable, accounts payable, and accrued expenses approximate their respective fair values due to the relatively short-term nature of these instruments.

NOTE 9. ***INCOME TAXES***

The Company utilizes the guidance issued by the FASB for 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.

Table of Contents

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, 2011 and 2010, the Company had consolidated net book losses of $3.5 million and $7.0 million, respectively. The losses result in a deferred income tax benefit which is offset by a deferred tax provision for the valuation allowance for a net deferred provision of zero. Since the Company is a development stage company, management has provided a 100% valuation allowance against its deferred tax assets until such time as management believes that its projections of future profits as well as expected future tax rates make the realization of these deferred tax assets more-likely-than-not. Significant judgment is required in the evaluation of deferred tax benefits and differences in future results from our estimates could result in material differences in the realization of these assets.

As of September 30, 2011, the Company has available gross federal net operating loss (NOL) carry forwards of $65.3 million and gross state NOL carry forwards of $52.1 million which expire at various dates through 2029.

As of September 30, 2011, the deferred tax assets were $25.2 million. The Company has recorded a full valuation allowance of $25.2 million related to federal and state net operating loss carry forwards. The Company has performed an assessment of positive and negative evidence regarding the realization of the net deferred tax asset in accordance with ASC 740-10, Accounting for Income Taxes. This assessment included the evaluation of scheduled reversals of deferred tax liabilities, the availability of carry forwards and estimates of projected future taxable income.

The Company has adopted guidance issued by the FASB that clarifies the accounting for uncertainty in income taxes recognized in an enterprise s financial statements and prescribes a recognition threshold of more likely than not and a measurement process for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. In making this assessment, a company must determine whether it is more likely than not that a tax position will be sustained upon examination, based solely on the technical merits of the position and must assume that the tax position will be examined by taxing authorities. Our policy is to include interest and penalties related to unrecognized tax benefits in income tax expense. Interest and penalties totaled $0 for the years ended September 30, 2011 and 2010, respectively, and $0 for the period from May 7, 2003 (date of inception) through September 30, 2011. The Company files income tax returns with the Internal Revenue Service (IRS), the state of California and certain other taxing jurisdictions. For jurisdictions in which tax filings are prepared, the Company is no longer subject to income tax examinations by state tax authorities for years through fiscal 2006, and by the IRS

NOTE 10. ***RELATED PARTY TRANSACTIONS***

Dr. Anzalone owns 1,395,900 shares of Nanotope, Inc. common stock or approximately 14.2% of Nanotope s outstanding voting securities. Dr. Anzalone does not hold options, warrants or any other rights to acquire securities of Nanotope. Dr. Anzalone has the right to appoint a representative to the board of directors of Nanotope. Dr. Anzalone currently serves on the Nanotope board in a seat reserved for Nanotope s CEO, and another individual holds the seat designated by Dr. Anzalone. Dr. Anzalone has served as President and Chief Executive Officer of Nanotope since its formation and continues to serve in these capacities. Dr. Anzalone has not received any compensation for his work on behalf of Nanotope since joining the Company on December 1, 2007. Dr. Anzalone has also waived his right to any unpaid compensation accrued for work done on behalf of Nanotope before he joined the Company.

Dr. Anzalone did not participate on behalf of the Company in the negotiations of the terms of the Nanotope Series B Preferred Stock issued to the Company and did not negotiate on behalf of Nanotope after becoming the Chief Executive Officer and President of the Company. Dr. Anzalone did respond to questions asked of him by the Company s Board of Directors and management regarding Nanotope s business plan, operations and the terms of the Series B Stock Purchase Agreement and ancillary agreements.

During fiscal 2009, Calando raised $2.5 million through the sale of senior unsecured convertible promissory notes (New Notes), to accredited investors, plus $800,000 from Arrowhead. Dr. Anzalone, Arrowhead s President and CEO, personally participated in the offering by buying $100,000 of the New Notes.

As part of the private placement on December 11, 2009 (see Note 6. Stockholder s Equity), Dr. Anzalone, Arrowhead s President and CEO, personally invested $100,000.

In August 2010, the Company retained Mr. Vincent Anzalone, the brother of Arrowhead s Chief Executive Officer, as a consultant for the Company, focusing on business development and market analysis, with a monthly remuneration of $10,000 per month. Mr. Vincent Anzalone

was paid $20,000 during the fiscal year ended September 30, 2010, and $120,000 during the fiscal year ended September 30, 2011.

NOTE 11. ***EMPLOYEE BENEFIT PLANS***

In January 2005, the Company began sponsoring a defined contribution 401(k) retirement savings plan covering substantially all of its employees. The Plan was administered under the safe harbor provision of ERISA. Under the terms of the plan, an eligible employee may elect to contribute a portion of their salary on a pre-tax basis, subject to federal statutory limitations. The plan allowed for a discretionary match in an amount up to 100% of each participant s first 3% of compensation contributed plus 50% of each participant s next 2% of compensation contributed.

Table of Contents

For the years ended September 30, 2011 and 2010, we recorded expenses under these plans of approximately $43,000 and $9,000, respectively and $448,000 since inception of the Company.

In addition to the employee benefit plans described above, the Company participates in certain customary employee benefits plans, including those which provide health and life insurance benefits to employees.

NOTE 12. ***SUBSEQUENT EVENTS***

On October 21, 2011, the Company entered into a Stock and Asset Purchase Agreement (the RNAi Purchase Agreement) with Hoffmann-La Roche Inc. and F Hoffmann-La Roche Ltd (collectively, Roche), pursuant to which the Company purchased from Roche (i) all of the outstanding common stock of Roche Madison Inc. (Roche Madison) and (ii) the intellectual property rights currently held by Roche related to its RNAi business and identified in the RNAi Purchase Agreement (the Transaction). In consideration for the purchase of Roche Madison and the Roche RNAi assets, the Company issued to Roche a promissory note with a principal value of $50,000 and 901,702 shares of Common Stock (as adjusted for a subsequent reverse split). Additionally, the Company agreed that, subject to stockholder approval under the NASDAQ Marketplace Rules, the Company would issue an additional 146,562 (as adjusted for a subsequent reverse split) shares of Common Stock, plus a number of additional shares equal to 9.9% of the shares of Common Stock (or common stock equivalents) sold by the Company in capital raising transactions within one year from the closing, but only with respect to the first $3,118,615 of gross offering proceeds (the Top-up Shares). If the Company is prohibited from issuing the Top-up Shares due to NASDAQ Marketplace Rules, then the Company must instead pay the cash value of the Top-up Shares, based on the then-current fair value of such shares.

Pursuant to the RNAi Purchase Agreement, Roche has a right of first negotiation on certain product candidates developed by the Company and its affiliates relating to the purchased assets. If the Company proposes to out-license, or enters into substantive negotiations to out-license, any Clinical Candidate or Existing Candidate (as such terms are defined in the RNAi Purchase Agreement), the Company must give detailed notice of the Candidate it proposes to out-license and negotiate exclusively and in good faith with Roche for a period of time regarding the applicable out-license. This right of first negotiation applies to all Existing Candidates and the first five Clinical Candidates for which the Company delivers notice to Roche and subsequently enters into an out-license.

In addition to the consideration paid by the Company at the closing of the Transaction, the Company is obligated to make certain royalty and milestone payments to Roche upon the occurrence of certain events. For certain product candidates that are developed by the Company or its affiliates and that are covered by a valid claim by the patent rights transferred in the Transaction for which the Company and Roche do not enter into a licensing arrangement, the Company will be obligated to pay a 3% royalty on Net Sales (as defined in the RNAi Purchase Agreement), provided that the royalty rate may be reduced or offset in certain circumstances. The obligation to pay royalties on such candidates will last until the later of (i) the expiration of the last to expire patent right related to such product candidate that was transferred in the Transaction and (ii) ten years after the first commercial sale of such product candidate.

The Company will also be obligated to make cash payments to Roche upon the achievement of various milestones, including the first regulatory approval of an Existing Candidate in certain jurisdictions and upon certain annual sales milestones for Existing Candidates that may receive regulatory approval. The potential payments range from $2,500,000 to $6,000,000 per milestone.

On October 4, 2011, the Company completed a second closing to the private placement stock issuance of September 30, 2011. On October 4, 2011, the Company sold 138,157 shares of Common Stock at a price of $3.80 per share. Cash proceeds were $525,000.

On October 20, 2011, the Company and Lincoln Park Capital Fund, LLC, an Illinois limited liability company (LPC) entered into a $15 million purchase agreement (the Purchase Agreement), together with a registration rights agreement, whereby LPC agreed to purchase up to $15 million of Common Stock, subject to certain limitations, from time to time during the three-year term of the Purchase Agreement. Additionally, the Company agreed to file a registration statement with the U.S. Securities & Exchange Commission covering the resale of the shares that may be issued to LPC under the Purchase Agreement. After the SEC declares effective the registration statement related to the resale of such shares, the Company will have the right, in its sole discretion, over a 36-month period to sell up to $15 million of Common Stock (subject to certain limitations) to LPC, depending on certain conditions as set forth in the Purchase Agreement.

Table of Contents

On October 21, 2011 and October 24, 2011, the Company entered into Subscription Agreements with certain accredited investors (the Series A Purchasers), pursuant to which the Company agreed to issue and sell an aggregate of 1,015 shares of Series A Preferred Convertible Stock, $0.001 par value per share, at a purchase price of $1,000 per share. The aggregate purchase price to be paid by the Series A Purchasers for the shares of Series A Preferred is $1,015,000. The closing of the sale of the shares occurred on October 26, 2011.

On October 21, 2011, the Company entered into a Subscription Agreement with a single accredited investor, pursuant to which the Company agreed to issue and sell an aggregate of 675,000 shares of Common Stock, $0.001 par value per share, at a purchase price of $3.70 per share. The aggregate purchase price to be paid by the purchaser for the shares of Common Stock was $2,497,500. The closing of the sale of the Common Shares is expected to occur in fiscal 2012.

As of November 17, 2011, the Company effected a 1 for 10 reverse stock split. As a result of the reverse stock split, each ten shares of the Company s Common Stock issued and outstanding immediately prior to the reverse split was combined into one share of Common Stock. Also, as a result of the Reverse Stock Split, the per share exercise price of, and the number of shares of Common Stock underlying Company stock options, warrants, Series A Preferred and any Common Stock based equity grants outstanding immediately prior to the reverse stock split was proportionally adjusted, based on the one-for-ten split ratio, in accordance with the terms of such options, warrants or other Common Stock based equity grants as the case may be. No fractional shares of Common Stock were issued in connection with the reverse split. Stockholders received a cash payment in lieu of any fractional shares. Unless otherwise noted, all share and per share amounts in these financial statements have been retrospectively adjusted to reflect the reverse stock split.