LUNA INNOVATIONS INC
Form 10-K
March 30, 2007
Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(MARK ONE)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2006

OR

¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE TRANSITION PERIOD FROM TO

COMMISSION FILE NUMBER 000-52008

LUNA INNOVATIONS INCORPORATED

(Exact name of Registrant as Specified in its Charter)

Delaware	**54-1560050**
(State or Other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification Number)*

1703 South Jefferson Street, SW, Suite 400

Roanoke, VA 24016

(Address of Principal Executive Offices)

(540) 769-8400

(Registrant s Telephone Number, Including Area Code)

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

Title of Each Class:	Name of Each Exchange on which Registered
Common Stock, par value $0.001 per share	**The NASDAQ Stock Market LLC**

Securities registered pursuant to Section 12(g) of the Act: None

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Indicate by 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 check mark if the registrant is not required to file reports pursuant to Section 13 or Section 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ¨

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

Large accelerated filer ¨ Accelerated filer ¨ Non-accelerated filer x

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

The aggregate market value of the registrant s common stock held by non-affiliates of the registrant on June 30, 2006, based upon the closing sale price of the registrant s common stock on such date as reported by the NASDAQ Global Market (formerly the NASDAQ National Market), was approximately $40.1 million. Shares of the registrant s common stock held by each officer and director of the registrant, and each entity or person that, to the registrant s knowledge, owned 10% or more of the registrant s outstanding common stock as of June 30, 2006, have been excluded in that such persons or entities may be deemed to be affiliates. This determination regarding affiliate status is not necessarily a conclusive determination for other purposes.

Indicate the number of shares outstanding of each of the registrant s classes of common stock, as of the latest practicable date: As of March 15, 2007, there were 10,002,686 shares of the registrant s common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Specified portions of the registrant s Proxy Statement with respect to its 2007 annual meeting of stockholders are incorporated by reference in Part III of this annual report on Form 10-K.

Table of Contents

LUNA INNOVATIONS INCORPORATED

ANNUAL REPORT ON FORM 10-K

FOR THE PERIOD ENDED DECEMBER 31, 2006

TABLE OF CONTENTS

Table of Contents

FORWARD LOOKING STATEMENTS

This report contains forward-looking statements made pursuant to the safe harbor protection provided by the Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act of 1933, as amended. We attempt, whenever possible, to identify these forward-looking statements by words such as intends, will, plans, anticipates, expects, may, estimates, believes, should, projects, or continue, or the negative of those words and other comparable words. Similarly, statements that describe our business strategy, goals, prospects, opportunities, outlook, objectives, plans or intentions are also forward-looking statements. These statements may relate to, but are not limited to, expectations of future operating results or financial performance, capital expenditures, introduction of new products, regulatory compliance, plans for growth and future operations, as well as assumptions relating to the foregoing. You are cautioned that actual events or results may differ materially from the expectations expressed in such forward-looking statements as a result of various factors, including risks and uncertainties, many of which are beyond our control. These risks and other factors include, but are not limited to, those listed under the section entitled Risk Factors in Item 1A of Part I of this report. Except as required by applicable law, including the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements, whether as a result of any new information, future events or otherwise, other than through the filing of periodic reports in accordance with the Securities Exchange Act of 1934, as amended.

PART I

ITEM 1. BUSINESS

Company Background

We research, develop and commercialize innovative technologies in two primary areas of focus: instrumentation and test & measurement products and healthcare products. We have a disciplined and integrated business model that is designed to accelerate the process of bringing new and innovative products to market. We identify technologies that can fulfill large and unmet market needs and then take these technologies from the applied research stage through commercialization.

To manage a diverse set of products effectively across a range of development stages, we are organized into two main groups: our Technology Development Division (which generates contract research revenue) and our Products Division (which generates product and licensing revenue). Although revenues from product sales and licensing currently represent less than half of our total revenues, we continue to invest in product development and commercialization, which we anticipate will lead to increased product sales and improved margins. In the future, while we anticipate continued growth in contract research revenue, we expect that revenues from product sales and licensing will represent a larger proportion of our total revenues. In addition, we anticipate that future product and licensing revenues will reflect a broader and more diversified mix of products.

Our Business Model

We have developed a disciplined and integrated process to accelerate the development and commercialization of innovative technologies. Our business model employs a market-driven approach and provides the infrastructure, resources and know-how throughout the process of developing and commercializing new products. Our Technology Development Division and our Products Division work together through all product development stages, including:

- searching for emerging technologies based on market needs;
- conducting applied research;
- developing and commercializing innovative products; and

applying proven technologies and products to new market opportunities.

Table of Contents

The strength of our business model is exemplified by our track record in taking innovative technologies from the applied research stage through product development and ultimately to the creation of independent businesses. For example, we have created five companies in our areas of focus, two of which were sold to industry leaders in their fields and two of which were financed by private venture capital. In addition, we have developed more than a dozen products serving several industries including energy, telecommunications, life sciences and defense.

Our commercialization strategy leverages opportunity teams which are cross-staffed with professionals from both our Products Division and our Technology Development Division. The objective of these opportunity teams is to identify technologies that have demonstrated proof of concept and that are ready for further development. Each opportunity team includes personnel with a mix of intellectual property, technical and business backgrounds, including individuals who have experience with venture capital-backed companies and others who have successfully run major divisions of large corporations. In addition, we plan to consult with members of our advisory board with respect to product development matters from time to time. We believe that this combination of skills and experience is critical to the success of the product development process.

To this end, we have rigorous processes to evaluate the merits of further developing any given technology. Investment proposals to develop technologies that have demonstrated proof-of-concept are submitted for consideration to our internal investment committee. These proposals have the basic elements of a business plan, including market, competition, distribution, financing and intellectual property analyses. Our internal investment committee, which is composed of key members of our senior management team, evaluates the merits of each proposal and makes investment decisions. It is at this stage that we first consider investing our own funds to finance continued development. Once qualified opportunities are approved, our internal investment committee regularly reviews progress and evaluates whether or not to continue funding development of individual projects.

PRODUCTS DIVISION

Our principal products and product candidates are organized into two broad classes instrumentation and test & measurement products and healthcare products, both of which are managed by our Products Division. Our Products Division is supported by our Technology Development Division, which provides applied research services to our government and corporate customers. The Technology Development Division seeks to continuously supply our Products Division with new opportunities. As of December 31, 2006, our Products Division team consisted of 41 full time employees. Our primary product lines and technology development services are described in more detail below.

Instrumentation and Test & Measurement Products

The cornerstone of our instrumentation and test & measurement business is our Luna Technologies subsidiary, which we reacquired in September 2005. We established Luna Technologies, Inc. in July 1998 and funded its growth by raising venture capital. Such financing activities diluted our equity ownership to approximately 10% prior to our reacquisition of the company. In line with our strategy of building a growing portfolio of products, we purchased all of the stock of Luna Technologies, Inc. that we did not own in exchange for shares of our common stock in September 2005. Our acquisition of Luna Technologies has significantly enhanced our development and production of optical fiber instrumentation and test & measurement products, as described more fully below.

Test & Measurement Products

Our test and measurement products measure the integrity, quality and efficacy of fiber optic network components and subassemblies. These products are designed for manufacturers and suppliers of optical components and sub-assemblies and allow them to reduce costs and improve the quality of their products. Most designers and manufacturers of optical components and modules currently use a combination of different types

Table of Contents

of optical test equipment to measure and qualify their products and systems. Our optical test equipment products replace the need for these multiple test products and address all stages of the end user s product development life cycle including: design verification, component qualification, assembly process verification and failure analysis.

Our Luna Technologies division has three flagship product lines the Optical Vector Analyzer, or OVA; the Optical Backscattering Reflectometer, or OBR; and the Distributed Sensing System, or DSS which are discussed in more detail below.

Optical Vector Analyzer (OVA). Our award winning OVA platform allows manufacturers and suppliers of optical components and sub-assemblies to reduce costs and time-to-market by replacing multiple, time consuming and expensive measurement platforms with a single, integrated and easy-to-use instrument. Our most recent version of OVA operating software provides customers with faster testing times, advanced data analysis options and an extended dynamic range relative to previous versions.

Optical Backscattering Reflectometer (OBR). Our OBR is a highly sensitive diagnostic device that allows data and telecommunications companies and the service providers who maintain their own fiber optic networks to reduce test time and improve product quality. The OBR introduces the ability to inspect short-run fiber networks like those found in military and metropolitan areas with higher resolution and better sensitivity than previously possible. Its user-friendly graphical user interface also makes the OBR product suitable for both research and manufacturing applications. We are increasing sales of our optical test equipment products by expanding our customer base beyond the telecommunications industry into avionics, defense and energy industries.

Distributed Sensing

We also have significant knowledge and experience in distributed sensing systems, or DSS, which are products comprised of multiple sensors whose input is integrated through a fiber optic network and software. Our DSS products use fiber optic sensing technology with an innovative monitoring system that allows several thousand sensors to be networked along a single optical fiber. Some key applications, markets and technical advantages of our DSS are described below.

Distributed Strain and Shape. Potential markets for our DSS products include the airframe industry and integrated structural monitoring on civil structures and space applications. For example, a major air frame manufacturer deployed our DSS products during fatigue tests to measure strain through a network of sensors distributed throughout an aircraft. Our distributed strain measurement technology can also provide three-dimensional shape measurement. We are developing this technology for use in robotic tethers and for wing structures and have sold our shape-sensing probes to a major aircraft manufacturer for measuring shape on an aerodynamic surface.

Distributed Temperature. Our DSS product also enables the direct monitoring of temperature. Markets include industrial process control and electrical system monitoring. For example, we have sold a network of distributed temperature sensors to a major manufacturer of electrical generators, which use our sensors to increase operational efficiency and prolong generator life. We have also sold our DSS temperature sensors to NASA for both ultra-cold and extremely high-temperature measurements.

Tunable Lasers

In December 2006, we acquired the rights to manufacture an existing line of swept tunable lasers from a major laser manufacturer. We acquired this technology and related manufacturing assets to allow us to compete more effectively in our existing fiber optic test and measurement markets. We anticipate that this technology will help us provide our customers with faster and more flexible and cost-effective test and measurement products. Acquiring this laser technology will also allow us to aggressively pursue business opportunities in new markets such as industrial and medical sensing.

Table of Contents

Our laser, which is expected to start production in mid-2007, is a miniaturized, external-cavity laser offering high performance in a compact footprint. Such lasers were designed with systems integration in mind and are applicable to a range of fiber optic test and measurement, instrumentation, and sensing applications. Tunable laser technology is a key element in Luna s existing fiber optic test, measurement and sensing products lines. These products employ frequency-tuned lasers to measure various aspects of the transmission properties of telecommunications fiber optic components and systems. Lasers are also used in fiber optic sensing applications such as distributed strain and temperature mapping, and distributed measurement of shape. The acquired laser was also designed for high-volume manufacturing, which is a critical factor in our growth strategy.

Products in Development for Non-Destructive Industrial Testing and Homeland Security Applications

In addition to our fiber optic based products described above, we are developing a number of new devices that use high frequency sound, or ultrasonic, waves to evaluate the physical properties of materials. In general, our devices can determine the physical condition of an object by analyzing numerical measurements taken from ultrasonic waves that interact with the object. Our quantitative ultrasonic signal processing technology is designed to be extremely sensitive, detecting changes in the physical properties of the object studied. Our instruments report a numerical signature, not an image that is subject to interpretation and sometimes requires an expert consultant. Our technology thus provides information that cannot be obtained by traditional non-quantitative ultrasonic methodologies. Our quantitative ultrasonic technology has applications in medical diagnosis, non-destructive industrial testing and homeland security.

For example, we are developing a multi-purpose diagnostic instrument for the United States Army s initiative to improve field service for deployed vehicles. Our multi-purpose diagnostic device measures the physical integrity of parts in the field based on their responses to an ultrasonic probe. Each part has its own distinct acoustic response to an ultrasonic probe which our device can read. A response falling outside a specified range indicates the part will not perform as required. Our device can test the integrity of a large number of replaceable vehicle parts having various uses and made of various materials. Other potential markets for this product include materials laboratories and manufacturing quality assurance departments.

Products in Development for Remote and Secure Asset Monitoring Applications

We are developing innovative applications integrating sensors, software and hardware components to provide remote and secure asset monitoring solutions and products. These products, which are currently in development, integrate several technologies such as:

- Sensors utilizing light-transmitting optical fibers, or fiber optic sensors, that collect vital information, such as temperature, pressure, strain, movement, moisture, sound or other changes where they are deployed. We have particular experience developing sensors that operate in harsh environments.

- Encryption technology that scrambles wireless communications to provide security for military or industrial uses. We are designing a card that plugs into the network slot of a laptop or other portable wireless device and serves as a receptacle for any standard network card, converting the wireless communication into a secure, encrypted transmission that can only be unscrambled by a receiver with a similar card.

- Wireless transmission technology to send the data from remote sensors to a central monitoring station, enabling a customer to maintain real time, sensitive contact information about the health of machinery, or other equipment without the expense and inconvenience of installing cable-connected sensors.

We are also developing cost-effective remote and secure asset monitoring products that are simple to install and that offer industrial customers the ability to gather data critical to the performance of their equipment and to increase the reliability and performance of their machinery. These sensors are designed to work in harsh environments or in difficult to reach sites to monitor critical data, such as temperature, pressure and a number of other variables.

Table of Contents

Examples of products in development for military secure wireless communication applications include working with the U.S. Navy to enable handheld wireless devices to communicate securely with a ship or submarine network. In addition, we are developing a sophisticated system that is designed to detect security breaches.

Healthcare Products

Ultrasound Medical Devices for Monitoring and Diagnosis

Ultrasound is an important, non-invasive tool for diagnosing disease inside the body. Our quantitative ultrasound line of products provide a numerical readout of certain physical properties of the body part being analyzed, such as pressure or strain, which helps physicians diagnose certain disease conditions. All of our ultrasound medical products are built around a common platform, yet have customized processing and interfaces specific to each application. The pathway to market for medical diagnostic devices requires pre-clearance by government agencies. For example, we will be required to obtain certification for safety through international standards as well as approval from the FDA through a 510(k) registration.

Our lead products in this field are our Emboli Detection and Classification (EDAC™) QUANTIFIER product and our Emergency Non-Invasive Tissue and Compartment Testing (EN-TACT™) product, which are described below. Both of these products were launched in 2006.

EDAC™ QUANTIFIER. Our EDAC QUANTIFIER is a noninvasive medical device that uses quantitative ultrasound technology to count emboli in ex-vivo blood circuits in real-time. Emboli can be air bubbles or solid matter (lipids or blood clots) and can enter the blood circuit during critical and invasive medical procedures such as cardio-pulmonary bypass surgery. Emboli can be dangerous and are believed to be the cause of neurological or neuropsychological post-operative deficits and, in some cases, fatalities. The EDAC system uses advanced ultrasound technology to detect individual microemboli at rates up to 1000 per second. Employing complex algorithms originally developed for the defense industry, the system is designed to provide cardiothoracic surgeons, perfusionists and anesthesiologists with an accurate rate of emboli in the blood circuit during heart-lung bypass and other operations.

We believe that this product is an excellent example of our business model at work. After discovering and developing the technology with one of our key government research partners, we recognized its commercial potential based on the number of heart-lung bypass surgeries performed in the United States annually. After determining that there may be a significant market for the product, we invested the resources necessary to take this cutting-edge technology to commercialization.

We launched the EDAC QUANTIFIER in May 2006 and are currently pursuing FDA clearance to market and sell this product for clinical use in the United States. We currently sell the system for investigational use only to research institutions and other commercial customers.

EN-TACT.™ Our EN-TACT device is designed to quickly and non-invasively detect compartment syndrome. Compartment syndrome is a serious and painful condition that results when traumatic injury causes pressure within the muscles to build to dangerous levels and prevents nourishment from reaching nerve and muscle cells. Left untreated, such injury can cause nerve damage and morbidity in the affected muscle. Our ultrasonic device is more portable than traditional phased-array imaging systems and does not require specialized expertise to operate. It is therefore ideal for sports medicine, trauma and military combat situations.

In addition, we believe that there may be a significant market for our EN-TACT product for use in measuring and monitoring intracranial pressure and diagnostic screening in head trauma victims. Trauma to the head can result in the rapid build up of internal pressure which can cause morbidity or death if not treated. This condition is typically diagnosed by evaluating a patient s response to external stimuli, which is not possible if the patient is unconscious. While the current intracranial pressure

Table of Contents

diagnostic procedure is a combination of an MRI, spinal tap and in some cases a catheter inserted into the brain, our intracranial pressure monitor is non-invasive, displays immediate results and is being designed so that it will not require expert interpretation.

Another potential application for our non-invasive ultrasound medical platform is measurement of bone strength to improve the care of patients with osteoporosis. Bone loss due to osteoporosis is presently determined using x-ray techniques that measure the density of the bone. Density, however, is not always a good indicator of bone strength. We believe that our ultrasound technology will be able to measure, for the first time, the strength of a bone and can detect the difference between a bone capable bearing weight and one that is not. This measurement reflects the load bearing capacity of the bone, which is data that current devices in the market do not provide.

Nanomaterial-based Medical Products

Our nanomaterial manufacturing and research and development team is developing advanced carbon nanomaterials, which are molecular structures consisting of carbon atoms in distinctive geometric shapes. Such materials include Trimetasphere nanomaterials, a new class of materials that we describe in more detail below; fullerenes, which are carbon spheres that resemble a soccer ball; and carbon nanotubes, which are carbon rings shaped like a cylinder.

A Trimetasphere nanomaterial is a carbon sphere with three metal atoms enclosed inside. Using different combinations of a group of 17 rare earth metals, we can develop thousands of different types of Trimetasphere nanomaterials, each with distinctive properties and performance characteristics and each potentially marketable as a separate product. Each type of Trimetasphere nanomaterial has distinctive chemical, physical or biological properties due to the properties of the metals enclosed in its carbon cage. We can further customize Trimetasphere nanomaterials for specific applications by attaching different atoms or molecules to the surface of their carbon spheres. In some cases, the knowledge we gain from customizing Trimetasphere nanomaterials for specific applications may provide us with new intellectual property covering Trimetasphere nanomaterials and may also provide us with new intellectual property covering carbon nanomaterials other than Trimetasphere nanomaterials, further expanding our inventory of potential new products. Through our collaborative relationship with Virginia Tech, we have obtained an exclusive license to commercialize Trimetasphere nanomaterials under an issued U.S. patent and pending U.S. patent applications.

To date, we have been awarded a number of government contracts funding new applications of nanotechnology totaling approximately more than $15 million. These contracts are partially funding our development of manufacturing processes to produce nanomaterials in commercial quantities. Furthermore, we are researching and developing new applications exploring the physical properties of nanomaterials. We plan to continue to invest our own funds in these activities as well as competing for additional research contracts to support these programs.

Medical imaging applications. One of the most promising potential market applications of our nanomaterial technology is magnetic resonance imaging, or MRI. MRI has been established as the imaging technology of choice for a broad range of applications, including the identification and diagnosis of a variety of medical disorders. MRI provides three-dimensional images that enable physicians to diagnose and manage disease in a minimally invasive manner. MRI contrast agents, used in about 30% of MRI procedures, improve the resolution of MRI images by enhancing the contrast in the organ or tissue in the body where the contrast agent circulates. We anticipate that our Trimetasphere nanomaterial contrast agents will offer two primary advantages over existing contrast agents: lower risk of toxicity and higher image contrast.

Most of the contrast agents approved by the FDA use gadolinium, a toxic metal. To neutralize gadolinium s toxicity, contrast agents use organic compounds called chelates that wrap around the gadolinium, shielding the patient from its toxicity. However, chelates cannot neutralize the gadolinium

Table of Contents

if it escapes into the bloodstream. Hence, the longer the agent circulates, the greater the risk of toxicity. As a result, the contrast agents currently in use need to be eliminated from the body quickly, making it difficult to produce high quality images. The FDA has also recently released two warnings to the radiology community regarding the dangers of current gadolinium-based contrast agent to patients with impaired kidney function, noting that there have been at least 90 fatal outcomes within 18 months after the patient received such contrast agents in an MRI procedure.

To solve this problem, our Trimetasphere nanomaterial MRI contrast agents utilize a completely new approach to preventing toxicity. Due to the strength of the Trimetasphere nanomaterial s carbon cage enclosing the gadolinium, we believe that our Trimetasphere nanomaterial-based contrast agent can neutralize gadolinium for a longer period of time, and therefore allow the contrast agent to remain safely in the body longer. Experiments have also shown that our Trimetasphere nanomaterials provide a stronger contrast effect than the other contrast agents currently on the market. The first compound in this program is currently in preclinical development.

In addition to use as a general blood pooling agent, we are developing various modifications to the Trimetasphere nanomaterials to target them for specific tissues or physiological conditions. We believe that, using the Trimetasphere nanomaterials, a complete family of disease-targeting diagnostic agents can be created to enhance the capabilities of MRI imaging and significantly expand its applications.

Medical contrast agents for human use must be approved by the FDA or similar foreign regulatory agencies before they can be marketed, which we do not expect for several years. Please see the section titled Government Regulation below for more information about the regulatory approval process for our medical products.

Therapeutic and other applications. We are also actively researching other potential dermatologic and therapeutic applications for nanomaterial-based drugs based on the anti-oxidative characteristics of these materials. Such products are in the early stages of development, but if successful, would offer significant new market opportunities for us.

Technology Development Division

Our Technology Development Division (formerly referred to as our Contract Research Group) provides applied research to customers in our primary areas of focus. Our Technology Development Division competes to win contracts in these areas on a fee-for-service basis. This group has a successful track record of evaluating innovative technologies to address the needs of our customers. We identify these needs by utilizing our knowledge of the markets in our areas of focus and by consulting with major government entities, leading research universities and large corporations. We also use this network to obtain favorable technology transfer agreements, contract research revenues and strategic partnerships for the products that we develop based on our applied research.

We are working or have worked with over 60 corporate, academic and government collaborators, including:

Universities. The College of William and Mary, Duke University, Georgia Institute of Technology, North Dakota State University, The Ohio State University, The Pennsylvania State University, University of California, San Diego, University of Pittsburgh, University of Virginia, Washington University in St. Louis, University of Wyoming, and Virginia Polytechnic Institute and State University (Virginia Tech);

Government entities. Defense Advanced Research Projects Agency, Defense Threat Reduction Agency, Environmental Protection Agency, National Aeronautics and Space Administration, National Institutes of Health, National Institute of Standards and Technology, National Science Foundation, United States Air Force, United States Army, United States Department of Agriculture, United States Department of Commerce, United States Department of Defense, United States Department of Energy, United States Department of Transportation and United States Navy; and

Table of Contents

Corporations. Anteon International Corporation, Applied Research Associates, Inc., Baker Hughes Oilfield Operations, Dana Corporation, General Dynamics Information Technology, JDSU, Northrop Grumman Corporation and Raytheon.

We seek to continue to maximize the benefits we derive from our contract research business, including revenue generation and identification of promising technologies for further development. We focus primarily on opportunities where we can retain partial or full rights to the intellectual property developed and proactively target projects that we believe have the highest commercialization potential. Also, we take a disciplined approach to contract research to try to ensure that the costs of any contract we undertake are fully covered. This approach enables us to cover the costs of riskier stage technology development with outside funding. We believe that this model is cost efficient and reduces our risk significantly.

As of December 31, 2006, our Technology Development Division was engaged in over 100 separate active contracts. Such contracts typically last from six months to three years. These projects span a wide range of applications across our areas of focus.

Although we conduct our applied research on a fee-for-service basis for third parties, we seek to retain full or partial rights to the technologies and patents developed under those contracts and to continuously enlarge and strengthen our intellectual property portfolio. Often, a new technology that we develop complements existing technologies and enables us to develop applications and products that were not previously feasible. In addition, the technologies we develop are often applicable to commercial markets beyond what was originally contemplated in the contract research of such technologies and we endeavor to capture the value of those opportunities.

As of December 31, 2006, our Technology Development Division team consisted of 117 full time employees. Our Technology Development Division also utilizes the knowledge and experience of researchers employed through the academic institutions, corporations and government agencies with which we subcontract. The Technology Development Division is organized into subgroups according to the area of technology, with each subgroup managed by its own director responsible for its financial performance. In addition, our Technology Development Division has in place disciplined processes designed to ensure quality control of proposal preparation, program reviews, pipeline reviews, revenue tracking and financial reporting.

Our Technology Development Division has a high historical success rate in winning bids for U.S. Government Small Business Innovative Research (SBIR) contracts, and we have won three National Tibbett s Awards from the Small Business Administration for outstanding SBIR performance. SBIR contracts include Phase I feasibility contracts of up to $100 thousand and Phase II proof-of-concept contracts, which can be as high as $750 thousand. We also have been successful at winning contracts outside the SBIR program from corporations and government entities. Such contracts have no financial limit and typically have a longer duration, ranging from 12 to 24 months. As we continue to grow, one of our goals is to derive a larger portion of our contract research revenues from contracts outside the SBIR program.

The objective of the Technology Development Division is to continue to support future products through successful pursuit of third-party contracts in our primary areas of focus. In addition to contracts that support continued development of our fiber optic sensing, ultrasound and nanomaterial-related products and product candidates, we are actively working on a number of other early-stage technologies for industrial, commercial and military applications. Examples include contracts for the development of advanced material technologies (which include anti-corrosion, ultrahydrophobic, and blast and ballistic resistant materials), wireless sensors (which include sensors for corrosion monitoring, high-temperature industrial process monitoring, and electromagnetic interference (EMI) shielded flight control systems), and secure computing applications.

Table of Contents

Our Growth Strategy

We have the following key strategies to achieve our goal of accelerating the development and commercialization of innovative technologies and to create successful products in our areas of focus:

Continue to expand our portfolio of innovative products. We intend to build and commercialize a growing portfolio of high value-added products using innovative technologies and utilizing our existing relationships to identify, prioritize and allocate resources to respond rapidly to market needs and shorten the time to market for new products.

Transition our mix of revenues to a higher percentage of product and license revenues. We plan to commercialize a growing number of products in order to increase the amount of revenues that we generate from product sales and license payments. To this end, we will seek to expand our distribution network and our ability to service our customers. We will also seek to allocate resources to improve our ability to manufacture and shorten the cycle time from idea to market and to monetize our intellectual property portfolio by licensing our technologies. As a result, we believe that product sales and license revenues will comprise a greater portion of our total revenues in the future.

Continue to strengthen our Technology Development Division and actively pursuing non-SBIR contracts. We will seek to strengthen our Technology Development Division through increased resource allocation and hiring and by expanding our network of relationships with federal laboratories, major research universities and industry leaders. These steps will provide us the opportunity to grow our applied research business, remain informed of the latest technological advances and increase the quality and volume of high potential technologies that will support our product pipeline. We are also actively bidding on new non-SBIR contracts to increase our backlog of non-SBIR contract revenue.

Expand our intellectual property portfolio in our areas of focus. We will seek to expand our intellectual property portfolio by applying our disciplined processes to generate know-how and intellectual property through our network of relationships and our own research and development efforts. By continuing to expand our intellectual property portfolio, we will seek to enhance our competitive position and develop additional products in these areas.

Intellectual Property

We seek patent protection on inventions that we consider important to the development of our business. We rely on a combination of patent, trademark, copyright and trade secret laws in the United States and other jurisdictions, as well as confidentiality procedures and contractual provisions to protect our proprietary technology and our brand. We control access to our proprietary technology and enter into confidentiality and invention assignment agreements with our employees and consultants and confidentiality agreements with other third parties.

Our success depends in part on our ability to develop patentable products and obtain, maintain and enforce patent and trade secret protection for our products, as well as successfully defend these patents against third party challenges both in the United States and in other countries. We will only be able to protect our technologies from unauthorized use by third parties to the extent that we own or have licensed valid and enforceable patents or trade secrets that cover them. Furthermore, the degree of future protection of our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage.

Currently, we own or license numerous U.S. patents and U.S. and international patent applications, and we intend to file, or request that our licensors file, additional patent applications for patents covering our products. However, patents may not be issued for any pending or future pending patent applications owned by or licensed to us. Claims allowed under any issued patent or future issued patent owned or licensed by us may not be valid or sufficiently broad to protect our technologies. Any issued patents owned by or licensed to us now or in the future

Table of Contents

may be challenged, invalidated or circumvented, and, in addition, the rights under such patents may not provide us with competitive advantages. In addition, competitors may design around our technology or develop competing technologies. Intellectual property rights may also be unavailable or limited in some foreign countries, which could make it easier for competitors to capture or increase their market share with respect to related technologies. Although we are not currently involved in any legal proceedings related to intellectual property, we could incur substantial costs to defend ourselves in suits brought against us or in suits in which we may assert our patent rights against others. An unfavorable outcome of any such litigation could have a material adverse effect on our business and results of operations.

Competition

Our Technology Development Division competes for government, university and corporate research contracts relating to a broad range of technologies. Competition for contract research is intense and the industry has few barriers to entry. We compete against a number of in-house research and development departments of major corporations, as well as a number of small, limited-service contract research providers. The contract research industry continues to experience consolidation, which has resulted in greater competition for clients. Increased competition might lead to price and other forms of competition that could harm our operating results. We compete for contract research on the basis of a number of factors, including reliability, past performance, expertise and experience in specific areas, scope of service offerings, technological capabilities and price.

Our Products Division competes, or will compete, with a variety of companies in several different product markets. The products that we have developed or are currently developing will compete with other technologically innovative products, as well as products incorporating conventional materials and technologies. We expect that our products will compete with companies in a wide range of industries, including semiconductors, electronics, biotechnology, textiles, alternative energy, military, defense, healthcare, telecommunications, industrial measurement, security applications and consumer electronics. Although there can be no assurance that we will continue to do so, we believe that we compete favorably in these areas. If we are unable to effectively compete in these areas in the future, we could lose business to our competitors, which could harm our operating results.

Government Regulation

Qualification for Small Business Innovation Research Grants

We presently derive a majority of our revenue from U.S. Government s Small Business Innovation Research, or SBIR, program administered by the U.S. Small Business Administration, or SBA. SBIR is a highly competitive program that encourages small businesses to explore their technological potential and provides them incentive to profit from the commercialization of technologies. Each year, U.S. government federal agencies and departments are required to set aside a portion of their grant awards for SBIR-qualified organizations. SBIR contracts include Phase I feasibility contracts of up to $100 thousand and Phase II proof-of-concept contracts, which can be as high as $750 thousand. Several of our research contracts have used this program as a key source of project funding to develop new technologies.

We must continue to qualify for the SBIR program in order to be eligible to receive future SBIR awards. The eligibility requirements are:

Ownership. The company must be at least 51 percent owned and controlled by U.S. citizens or permanent resident aliens, or owned by an entity that is itself at least 51 percent owned and controlled by U.S. citizens or permanent resident aliens; and

Size. The company, including its affiliates, cannot have more than 500 employees.

These requirements are set forth in the SBA s regulations and are interpreted by the SBA s Office of Hearings and Appeals. In determining whether we satisfy the 51% equity ownership requirement, agreements to

Table of Contents

merge, stock options, convertible debt and other similar instruments are given present effect by the SBA as though the underlying security were actually issued unless the exercisability or conversion of such securities is speculative, remote or beyond the control of the security holder. We therefore believe our outstanding options and warrants held by eligible individuals may be counted as outstanding equity for purposes of meeting the 51% equity ownership requirement. As of December 31, 2006, giving present effect to our outstanding options, we estimate that at least approximately 58% of our equity is owned by U.S. citizens or permanent residents.

In addition, to be eligible for SBIR contracts, the number of our employees, including those of any entities that are considered to be affiliated with us, cannot exceed 500. As of December 31, 2006, we had 193 employees, which includes our Luna Technologies, Inc. subsidiary, In determining whether we have 500 or fewer employees, the SBA may count the number of employees of entities that are large stockholders who are affiliated , or have the power to control us. In determining whether two or more firms are affiliated, the SBA will look at factors such as stock ownership or common management, but ultimately will make its determination based on the totality of the circumstances. The SBA presumes that a large stockholder of ours has the power to control us absent evidence rebutting that presumption. With respect to Carilion Clinic (formerly Carilion Health System), our largest institutional stockholder, we believe we would not be required to count the employees of Carilion Clinic. We believe the relative beneficial ownership of our individual stockholders rebuts the presumption of control by Carilion Clinic because the shares held by our executive officers and directors constitute the controlling voting interest in us. Eligibility protests can be raised to the SBA by a competitor or by the awarding contracting agency. Accordingly, a company can be declared ineligible for a contract award as a result of a competitor s protest to the SBA or as a result of questioning by the awarding contracting agency. We believe that we are currently in compliance with the SBIR eligibility criteria, but we cannot provide assurance that the SBA will interpret its regulations in our favor. As we grow larger, and as our ownership becomes more diversified, we may no longer qualify for the SBIR program, and we may be required to seek alternative sources and partnerships to fund some of our research and development costs. Additional information regarding these risks may be found in this Annual Report on Form 10-K under the section Risk Factors

FDA Regulation of Products

Some of the products that we are developing are subject to regulation under the Food Drug and Cosmetic (FDC) Act. In particular, our Trimetasphere nanomaterial-based MRI contrast agent and our ultrasound diagnostic devices for measuring certain medical conditions will be considered a drug and medical devices, respectively, under the FDC Act. Both the statutes and regulations promulgated under the FDC Act govern, among other things, the testing, manufacturing, safety efficacy, labeling, storage, recordkeeping, advertising and other promotional practices involving the regulation of drug and devices.

Medical Devices

Our existing and future healthcare products, including our EDAC and EN-TACT products, are regulated by the FDA as medical devices. The nature of the requirements applicable to devices depends on their classification by the FDA. A device developed by us would be automatically classified as a Class III device, requiring pre-market approval, unless the device is substantially equivalent to an existing device that has been classified in Class I or Class II or to a pre-1976 device that has not yet been classified or we convince the FDA. Class I or Class II devices require registration through the 510(k) exemption. If we were unable to demonstrate such substantial equivalence and unable to obtain reclassification, we would be required to undertake the costly and time-consuming process, comparable to that for new drugs, of conducting preclinical studies, obtaining an investigational device exemption to conduct clinical tests, filing a pre-market approval application, and obtaining FDA approval.

If the device were a Class I product, the general controls of the Federal Food, Drug, and Cosmetic Act, chiefly adulteration, misbranding and good manufacturing practice requirements, would nevertheless apply. If

Table of Contents

substantial equivalence to a Class II device could be shown, the general controls plus special controls, such as performance standards, guidelines for safety and effectiveness, and post-market surveillance, would apply. While demonstrating substantial equivalence to a Class I or Class II product is not as costly or time-consuming as the pre-market approval process for Class III devices, it can in some cases also involve conducting clinical tests to demonstrate that any differences between the new device and devices already on the market do no affect safety or effectiveness. If substantial equivalence to a pre-1976 device that has not yet been classified has been shown, it is possible that the FDA would subsequently classify the device as a Class III device and call for the filing of pre-market approval applications at that time. If the FDA took that step, then filing an application acceptable to the FDA would be a prerequisite to remaining on the market.

New Drug Development

Our nanomaterial based drug candidates, including our MRI contrast agent product candidates, are regulated by the FDA as pharmaceuticals. Obtaining FDA approval for a new drug has historically been a costly and time consuming process. Generally, in order to gain FDA premarket approval, a developer first must conduct preclinical studies in the laboratory and in animal model systems to gain preliminary information on an agent s efficacy and to identify any safety problems. The results of these studies are submitted as a part of an investigational new drug, or IND, application which the FDA must review before human clinical trials of an investigational drug can start. The IND application includes a detailed description of the clinical investigations to be undertaken. In order to commercialize any drug, we must sponsor and file an IND application and be responsible for initiating and overseeing the clinical studies to demonstrate the safety, efficacy and potency that are necessary to obtain FDA approval of any of the products. We will be required to select qualified investigators to supervise the administration of the products and ensure that the investigations are conducted and monitored in accordance with FDA regulations. Clinical trials are normally done in three phases, although the phases may overlap. Phase I trials are concerned primarily with the safety and preliminary effectiveness of the drug, involve fewer than 100 subjects and may take from six months to over one year. Phase II trials typically involve a few hundred patients and are designed primarily to demonstrate effectiveness in treating or diagnosing the disease or condition for which the drug is intended, although short-term side effects and risks in people whose health is impaired may also be examined. Phase III trials are expanded clinical trials with larger numbers of patients which are intended to evaluate the overall benefit-risk relationship of the drug and to gather additional information for proper dosage and labeling of the drug. The process of clinical trials generally takes two to five years to complete, but may take longer. The FDA receives reports on the progress of each phase of clinical testing, and it may require the modification, suspension or termination of clinical trials if it concludes that an unwarranted risk is presented to patients.

If clinical trials of a new product are completed successfully, the sponsor of the product may seek FDA marketing approval. If the product is regulated as a drug, the FDA will require the submission and approval of a new drug application, or NDA, before commercial marketing of the drug. The NDA must include detailed information about the drug and its manufacture and the results of product development, preclinical studies and clinical trials. The testing and approval processes require substantial time and effort, and we cannot guarantee that any approval will be granted on a timely basis, if at all. If questions arise during the FDA review process, approval can take more than five years. Even with the submissions of relevant data, the FDA may ultimately decide that the NDA does not satisfy its regulatory criteria for approval and deny approval or require additional clinical studies. In addition, the FDA may condition marketing approval on the conduct of specific post-marketing studies to further evaluate safety and effectiveness. Even if FDA regulatory clearances are obtained, a marketed product is subject to continual review. Later discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions.

Environmental Regulation

Our facilities and current and proposed activities involve the use of a broad range of materials that are considered hazardous under applicable laws and regulations. Accordingly, we are subject to a number of foreign

Table of Contents

and domestic laws and regulations relating to health and safety, protection of the environment, product labeling and product take back, and the storage, use, disposal of, and exposure to, hazardous materials and wastes. We could incur costs, fines and civil and criminal penalties, personal injury and third party property damage claims, or we could be required to incur substantial investigation or remediation costs if we were to violate or become liable under environmental, health and safety laws. Moreover, a failure to comply with environmental laws could result in fines and the revocation of environmental permits, which could prevent us from conducting our business. Liability under environmental laws can be joint and several and without regard to fault. There can be no assurance that violations of environmental health and safety laws will not occur in the future as a result of the inability to obtain permits, human error, equipment failure or other causes. Environmental laws could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations, which could harm our business. Further, violations of present and future environmental laws could restrict our ability to expand facilities, pursue certain technologies, and could require us to acquire costly equipment, or to incur potentially significant costs to comply with environmental regulations.

The European Union Directive 2002/96/EC on Waste Electrical and Electronic Equipment, known as the WEEE Directive, requires producers of certain electrical and electronic equipment, including monitoring instruments, to be financially responsible for specified collection, recycling, treatment and disposal of past and present covered products placed on the market in the European Union. As a manufacturer of covered products, we may be required to register as a producer in some European Union countries, and we may incur some financial responsibility for the collection, recycling, treatment and disposal of both new products sold, and products already sold prior to the WEEE Directive s enforcement date, including the products of other manufacturers where these are replaced by our own products. European Union Directive 2002/95/EC on the Restriction of the Use of Hazardous Substances in electrical and electronic equipment, known as the RoHS Directive, restricts the use of certain hazardous substances, including mercury, lead and cadmium in specified covered products; however, the RoHS Directive currently exempts monitoring instruments from its requirements. If the European Commission were to remove this exemption in the future, we would be required to change our manufacturing processes, and redesign products regulated under the RoHS Directive in order to be able to continue to offer them for sale within the European Union. For some products, substituting certain components containing regulated hazardous substances may be difficult or costly, or result in production delays. We will continue to review the applicability and impact of both directives on the sale of our products within the European Union. Although we cannot currently estimate the extent of such impact, they are likely to result in additional costs, and could require us to redesign or change how we manufacture our products, any of which could adversely affect our operating results. Failure to comply with the directives could result in the imposition of fines and penalties, inability to sell covered products in the European Union and loss of revenues.

We have made, and will continue to make, expenditures to comply with current and future environmental laws. We anticipate that we could incur additional capital and operating costs in the future to comply with existing environmental laws and new requirements arising from new or amended statutes and regulations. In addition, because the applicable regulatory agencies have not yet promulgated final standards for some existing environmental programs, we cannot at this time reasonably estimate the cost for compliance with these additional requirements. The amount of any such compliance costs could be material. We cannot predict the impact that future regulations will impose upon our business.

Executive Officers

The following sets forth certain summary information concerning our senior executive officers. Additional information concerning our executive officers and directors may be found in our 2007 Proxy Statement, which is incorporated by reference in Item 10 of Part III in this Annual Report on Form 10-K.

Kent A. Murphy, Ph.D., our founder, has served as our President, Chief Executive Officer and Chairman of the Board since 1992. Dr. Murphy received his Ph.D. in Electrical Engineering from Virginia Polytechnic

Table of Contents

Institute and State University and is formerly a tenured professor in Virginia Tech s Bradley Department of Engineering, where he filed for over 35 patents. In 2001, he was named SBIR Entrepreneur of the Year and in 2004 was named Outstanding Industrialist of the Year by Virginia s Governor Warner. Dr. Murphy is the founding member of The Accelerating Innovation Foundation, a non-profit organization whose goal is to promote and facilitate development of a technology innovation cluster in the Mid-Atlantic region. Dr. Murphy is not related to Edward G. Murphy, M.D., a member of our board of directors.

Dale E. Messick has served as our Chief Financial Officer since August 2006. Prior to joining the company, Mr. Messick served in various capacities, including Chief Financial Officer at Worldspan, a provider of transaction processing and information technology services to the global travel industry. At Worldspan, Mr. Messick managed a staff of 160 throughout the United States, Mexico, and Europe and was responsible for accounting, financial reporting, budgeting, financial planning and analysis, and internal audit operations. During his tenure, he developed and executed business plans and strategies that focused the company on profitable growth and cash generation. Mr. Messick received a B.B.A. in Accounting from The College of William and Mary and is a certified public accountant.

John T. Goehrke has served as our Chief Operating Officer since September 2005. From August 2003 to September 2005, Mr. Goehrke served as President and Chief Executive Officer of Luna Technologies, Inc. From April 2000 to April 2003, Mr. Goehrke served as General Manager of the Access Division of Acterna, LLC, a provider of communications test solutions for telecommunications and cable network operators. Mr. Goehrke holds a B.S. in Electrical Engineering from the University of Connecticut and a M.B.A. from the University of Pittsburgh.

Scott A. Graeff has served as our Chief Commercialization Officer since August 2006 and previously served as our Chief Financial Officer since July 2005. Mr. Graeff was also a member of our Board of Directors from August 2005 until March 2006. From December 1999 to June 2001, Mr. Graeff served as Chief Financial Officer of Liquidity Link, a software development company. From June 2001 to August 2002, Mr. Graeff served as President and Chief Financial Officer of Autumn Investments. From August 2002 until July 2005, Mr. Graeff served as a Managing Director for Gryphon Capital Partners, a venture capital investment group. From August 2003 until July 2005, Mr. Graeff also served as the Acting Chief Financial Officer of Luna Technologies, Inc. Mr. Graeff is presently a member of the Board of Directors of Provox Technologies Corporation, a provider of speech recognition-based medical documentation and workflow management systems, a position he has held since June 2004. Mr. Graeff holds a B.S. in Commerce from the University of Virginia.

Scott A. Meller has served as President of our Contract Research Group since September 2005. From May 2004 to September 2005, Mr. Meller served as our Chief Operating Officer. From October 2002 to May 2004, Mr. Meller served as our Vice President of Research and Development and previously served as Director of Engineering from September 2000 to October 2002. Mr. Meller joined Luna Innovations in 1996 and was a major contributor to early research that led to spin-offs and new products, including Luna Technologies, Inc. Mr. Meller holds a B.S. in Electrical Engineering from Clemson University, a M.S. in Electrical Engineering from Virginia Tech, and is a licensed Professional Engineer. He also holds three patents in optical fiber sensors and devices.

Kenneth D. Ferris has served as President of Advanced Systems (part of our Products Division) since December 2005. Ken previous worked with one of our spin-out ventures, Luna i-Monitoring. Prior to joining i-Monitoring in 2002, Ken worked for Carrier Access, where as VP and General Manger of Broadband Terminal Products, he was responsible for product development and product management activities. Ken joined Carrier Access in August of 2000 when Carrier acquired Millennia Systems, a company he co-founded. Prior to 1998, Ken was a Vice President for FiberCom, as part of the team who developed the company from infancy to maturity. Mr. Ferris holds a B.S. in Electrical Engineering from Virginia Tech.

Robert P. Lenk, Ph.D. has served as President of our Luna nanoWorks Division since August 2005. Prior to joining Luna Innovations, Dr. Lenk served as President of Oncovector Inc., a biopharmaceutical company since

Table of Contents

December 2003 and a member of its board of directors since May 2003. From July 1999 to September 2003, Dr. Lenk was President and Chief Executive Officer of Therapeutics 2000, an inhalation pharmaceutical research company. Lenk holds a Ph.D. in Cell Biology from the Massachusetts Institute of Technology.

Employees

As of December 31, 2006, we had 193 full time employees. Approximately 83 of our employees have advanced degrees, including 47 employees with Ph.D.s. None of our employees is covered by a collective bargaining agreement, and we consider our relationship with our employees to be good.

Advisory Board

To assist us in executing our commercialization business model, we have assembled an advisory board of leaders with backgrounds in government, academia and industry with which we consult on a formal and informal basis regarding strategic and technical matters. In connection with their appointment to and as consideration for their service on the advisory board, each advisor receives a stock option grant to purchase shares of our common stock.

Our advisory board currently includes the following individuals:

Frank Bonsal, Jr. is co-founder of the venture capital firm New Enterprise Associates, or NEA, where he has focused on the development of its early stage companies. He is also a co-founder of Red Abbey Venture Partners in Lutherville, Maryland and he is a special limited partner of Amadeus Capital Partners, Boulder Ventures, Novak Biddle Venture Partners, Trellis Ventures and Windward Ventures. Mr. Bonsal s current board memberships include Advertising.com, Inc., CeraTech and Cibernet Corporation. Mr. Bonsal is also a member on the Johns Hopkins Hospital Endowment Board. Prior to founding NEA, Mr. Bonsal was a general partner of Alex. Brown & Sons Inc.

Terry Brady was most recently employed by Oridion Systems Ltd. to launch a new division in the United States. Prior to joining Oridion Systems Ltd., Mr. Brady founded Array Medical, Inc., where he served as President and Chief Executive Officer. Before founding Array Medical, Inc., Mr. Brady was President of International Technidyne Corporation Commercial Group.

Ronald E. Carrier, Ph.D. is currently president emeritus of James Madison University, where he served previously as President for 27 years. During his presidency, James Madison University changed from a teachers college to a major comprehensive university. Dr. Carrier has been active on a number of national and state commissions and has been a board member of several companies that have been acquired by Fortune 200 companies.

John F. Hay is currently a principal with P3 Consulting, LLC in Washington, D.C. Mr. Hay has over 40 years of experience in the national security arena having served twelve years as an industry executive and thirty one years in uniform with the Department of the Navy. In 2000, Mr. Hay was appointed to the Bush-Cheney Transition Advisory Committee and subsequently served as an advisor to the Secretary of Defense and the NASA Administrator. He currently serves as an advisor to the Secretary of the Army and is a member of the Army Science Board. During his time in industry, Mr. Hay was Senior Vice President, Corporate and International Affairs for Westinghouse Electric and CBS Corporation. Before joining Westinghouse, Mr. Hay spent five years as a Congressional Affairs Officer in the Office of the Secretary of the Army. During the previous twenty-six years, his military service included serving in the Chief of Staff of the Army s Office and a series of command and staff assignments in Infantry, Special Operations, Intelligence and Military Police units. Mr. Hay received his bachelors degree from the University of Nebraska, his masters degree from Wichita State University and is a graduate of the U.S. Army Command and Staff College and the FBI National Academy.

Table of Contents

Charles Edward Hamner, Jr. DVM, Ph.D. is currently the President and CEO of Hamner Advisory Service; he specializes in management in the pharmaceutical and healthcare industries and academic administration. From 1988-2002 Dr. Hamner served as President and CEO of the North Carolina Biotechnology Center, and was a Research Professor in the OB/GYN Department at the University of North Carolina at Chapel Hill. He has also worked as Associate Vice President for Health Affairs at the University of Virginia Medical Center (1978-1988), and served as Interim Executive Director for the Center in 1981. Dr. Hamner received his bachelors degree in Animal Science from Virginia Tech and his masters degree in Chemistry, DVM in Veterinary Medicine and Ph.D. in Bio-Chemistry from the University of Georgia.

Sir Harold W. Kroto is one of the co-recipients of the 1996 Nobel Prize in Chemistry. Dr. Kroto s Nobel Prize was based on his co-discovery of buckminsterfullerene, a form of pure carbon better known as buckyballs. Dr. Kroto earned his Doctorate in chemistry from the University of Sheffield. He started his academic career at the University of Sussex at Brighton in 1967, where he became a professor in 1985 and, in 1991 was made a Royal Society Research Professor.

The Honorable John O. Marsh Jr. is currently a Senior Fellow at the National Center for Technology and Law and a Distinguished Adjunct Professor at the George Mason University School of Law. Prior to that, Mr. Marsh served in the U.S. House of Representatives for Virginia, as Secretary of the Army for eight years, and as National Security Advisor to Vice President and, later, President Gerald R. Ford. Mr. Marsh is also the former Chairman and interim Chief Executive Officer of Novavax, Inc., a specialty biopharmaceutical company. Mr. Marsh received his law degree from Washington and Lee University.

John B. Noftsinger, Jr., Ph.D. is currently the Associate Vice President of Academic Affairs for Research and Program Innovation, the Executive Director of the Institute for Infrastructure and Information Assurance, and an Associate Professor of Integrated Science and Technology and Education at James Madison University, where he specializes in interdisciplinary program and grant development. Dr. Noftsinger is also the Co-Chair of the Virginia Research and Technology Advisory Committee and the Chair of the Virginia Technology Alliance.

Jerre Stead is currently Chairman of IHS, Inc. and is the former Chairman and Chief Executive Officer of Ingram Micro Inc. He previously served as Chief Executive Officer of Legent Corporation, Chairman and Chief Executive Officer of AT&T Global Information Solutions, and Chairman, President, and Chief Executive Officer of Square D Company. Mr. Stead also serves on the board of directors of TBG, Armstrong World Industries, Inc., Brightpoint, Inc., Conexant Systems, Inc., Mindspeed Technologies, Inc., and Mobility Electronics, Inc.

G. Kim Wincup is senior vice president of Science Applications International Corporation. Mr. Wincup previously served as counsel to the U.S. House of Representatives Armed Services Committee and U.S. House of Representatives Veterans Affairs Committee, as staff director of the U.S. House of Representatives Armed Services Committee and the Joint Committee on the Organization of Congress, and as Assistant Secretary of both the Air Force and the Army. Mr. Wincup has a bachelors degree in Political Science from DePauw University, and received a law degree from the University of Illinois School of Law.

General Larry D. Welch was formerly the U.S. Air Force Chief of Staff. As Chief, he served as the senior uniformed Air Force Officer responsible for the organization, training and equipage of a combined active duty, Guard, Reserve and civilian force serving at locations in the United States and overseas. As a member of the Joint Chiefs of Staff, he and the other service chiefs functioned as the principal military advisers to the secretary of defense, National Security Council and the President. General Welch received a bachelor s degree in Business Administration from the University of Maryland and a Masters Degree in International Relations from the George Washington University. General Welch completed Armed Forces Staff College at Norfolk, Va., in 1967, and National War College at Fort Lesley J. McNair, Washington, D.C., in 1972.

Table of Contents

Available Information

We make our periodic and current reports available, free of charge, on our website as soon as practicable after such material is electronically filed with the Securities and Exchange Commission. Our website address is *www.lunainnovations.com* and such reports are filed under SEC Filings on the Investor Relations portion of our website. Further, a copy of this annual report as well as our other periodic and current reports may be obtained from the SEC, located at the SEC s public reference room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding our filings at www.sec.gov.

ITEM 1A. RISK FACTORS

You should carefully consider the risks described below before deciding whether to invest in our common stock. The risks described below are not the only ones we face. Additional risks not presently known to us or that we currently believe are immaterial may also impair our business operations and financial results. If any of the following risks actually occurs, our business, financial condition or results of operations could be adversely affected. In such case, the trading price of our common stock could decline and you could lose all or part of your investment. Our filings with Securities and Exchange Commission also contain forward-looking statements that involve risks or uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks we face described below.

RISKS RELATING TO OUR BUSINESS

If we are unable to manage our growth effectively, our revenue and net loss could be adversely affected.

While historically we have developed and commercialized only a few products at a time, we plan to grow by developing and commercializing multiple products concurrently across many industries, technologies and markets. Our ability to grow by developing and commercializing multiple products simultaneously requires that we manage a diverse range of projects, and expand our personnel resources. Our inability to do any of these could prevent us from successfully implementing our growth strategy, and our revenues and profits could be adversely affected.

To advance the development of multiple promising potential products concurrently, we need to manage effectively the logistics of maintaining the requisite corporate, operational, administrative and financing functions for each of these product opportunities. Potentially expanding our operations into new geographic areas and relying on multiple facilities to develop and manufacture different products concurrently pose additional challenges. We have little experience in managing these functions simultaneously for multiple projects in development or in building new infrastructure and integrating the operations of various facilities. If we cannot manage this process successfully, we may be subject to operating difficulties, additional expenditures and limited revenue growth.

We need to expand our personnel resources to grow our business effectively. We believe that sustained growth at a higher rate will place a strain on our management, as well as on our other human resources. To manage this growth, we must continue to attract and retain qualified management, professional, scientific and technical and operating personnel. During the quarter ended December 31, 2006, the labor market, particularly for highly-specialized scientists and engineers remained tight. If we are unable to recruit a sufficient number of qualified personnel, we may be unable to staff and manage projects adequately, which may slow the rate of growth of our contract research revenue or our product development efforts.

Table of Contents

We have incurred recent losses, and because our strategy for expansion may be costly to implement, we may experience continuing losses which may be significant.

We incurred consolidated net losses of approximately $2.0 million and $9.4 million for the year ended December 31, 2005 and the year ended December 31, 2006, respectively. We expect to continue to incur significant additional expenses as we expand our business, including increased expenses for research and development, sales and marketing, manufacturing, finance and accounting personnel and expenses associated with being a public company. We may also grow our business in part through acquisitions of additional companies and complementary technologies which could cause us to incur greater than anticipated transaction expenses, amortization or write-offs of intangible assets and other acquisition-related expenses. As a result, we expect that we may likely continue to incur losses for the foreseeable future, and these losses could be substantial.

Because of the numerous risks and uncertainties associated with our business and our expansion strategy, we are unable to predict when or if we will be able to achieve profitability again. If our revenues do not increase, or if our expenses increase at a greater rate than our revenues, we will continue to experience losses. Even if we do achieve profitability, we may not be able to sustain or increase our profitability on a quarterly or annual basis.

If we cannot successfully transition our revenue mix from contract research revenues to product sales and license revenues, we may not be able to fully execute our business model or grow our business.

Our business model and future growth depend on our ability to transition to a revenues mix that contains significantly larger product sales and license revenues components. Product sales and license revenues potentially offer greater scalability than services-based contract research revenues. Our current plan is to increase our portfolio of commercial products and, accordingly, we expect that our future product sales and license revenues will represent a larger percentage of total revenues. However, if we are unable to develop and grow our product sales and license revenues to augment our contract research revenues, our ability to execute our business model or grow our business could suffer.

We may not be successful in identifying market needs for new technologies and developing new products to meet those needs.

The success of our business model depends on our ability to identify correctly market needs for new technologies. We intend to identify new market needs, but we may not always have success in doing so, in part, because our contract research largely centers on identification and development of unproven technologies, often for new or emerging markets. Furthermore, we must identify the most promising technologies from a sizable pool of projects. If our commercialization strategy process fails to identify projects with commercial potential or if management does not ensure that such projects advance to the commercialization stage, we may not successfully commercialize new products and grow our revenues.

Our growth strategy requires that we not only identify new technologies that meet market needs, but that we also develop successful commercial products that address those needs. We face several challenges in developing successful new products. Many of our existing products and those currently under development including our Trimetasphere carbon nanomaterials, which are nanomaterials in the form of a carbon sphere with three metal atoms enclosed inside are technologically innovative and require significant and lengthy product development efforts. These efforts include planning, designing, developing and testing at the technological, product and manufacturing-process levels. These activities require us to make significant investments. Although there are many potential applications for our technologies, our resource constraints require us to focus on specific products

Table of Contents

and to forgo other opportunities. We expect that one or more of the potential products we choose to develop will not be technologically feasible or will not achieve commercial acceptance, and we cannot predict which, if any, of our products we will successfully develop or commercialize. The technologies we research and develop are new and steadily changing and advancing. The products that are derived from these technologies may not be applicable or compatible with the state of technology or demands in existing markets. Our existing products and technologies may become uncompetitive or obsolete if our competitors adapt more quickly than we do to new technologies and changes in customers requirements. Furthermore, we may not be able to identify if and when new markets will open for our products given that future applications of any given product may not be readily determinable, and we cannot reasonably estimate the size of any markets that may develop. If we are not able to successfully develop new products, we may be unable to increase our product revenues.

Our failure to attract, train and retain skilled employees would adversely affect our business and operating results.

The availability of highly trained and skilled technical and professional personnel is critical to our future growth and profitability. Competition for scientists, engineers, technicians and professional personnel is intense and competitors aggressively recruit key employees. We have recently experienced difficulties in recruiting and hiring these personnel as a result of the tight labor market in certain fields. This fact, combined with our growth strategy and future needs for additional experienced personnel, particularly in highly specialized areas such as nanomaterial manufacturing and innovative ultrasound technologies, may make it more difficult to meet all of our needs for these employees in a timely manner. Although we intend to continue to devote significant resources to recruit, train and retain qualified employees, we may not be able to attract and retain these employees, especially in technical fields where the supply of experienced qualified candidates is limited. Any failure to do so would have an adverse effect on our business.

In addition, our future success depends in a large part upon the continued service of key members of our senior management team. In particular, our Chairman, CEO and founder, Kent A. Murphy, Ph.D., is essential to our overall management as well as the development of our technologies, our culture and our strategic direction. All of our executive officers and key employees are at-will employees, and, except with respect to Kent A. Murphy, Ph.D., we do not maintain any key-person life insurance policies. The loss of any of our management or key personnel could seriously harm our business.

We rely and will continue to rely on contract research, including government-funded research contracts, for a significant portion of our revenues. A decline in government funding of existing or future government research contracts, including Small Business Innovation Research (or SBIR) revenues, could adversely affect our revenues and cash flows and our ability to fund our growth.

Technology development revenue, which consists primarily of government-funded research, accounted for approximately 93.5% and 79.8% of our consolidated total revenues for the year ended December 31, 2005 and the year ended December 31, 2006, respectively. As a result, we are vulnerable to adverse changes in our revenues and cash flows if a significant number of our government research contracts and subcontracts are simultaneously delayed or canceled for budgetary, performance or other reasons. The U.S. government may cancel these contracts at any time without cause and without penalty or may change its requirements, programs or contract budget, any of which could reduce our revenues and cash flows from U.S. government research contracts. Our revenues and cash flows from U.S. government research contracts could also be reduced by declines or other changes in U.S. defense, homeland security and other federal agency budgets. In addition, we compete as a small business for some of these contracts, and in order to maintain our eligibility to compete as a small business, we (together with any affiliates) must continue to meet size and revenue limitations established by the U.S. government.

In addition to contract cancellations and changes in agency budgets, our future financial results may be adversely affected by curtailment of the U.S. government s use of contract research providers, including

Table of Contents

curtailment due to government budget reductions and related fiscal matters. These or other factors could cause U.S. defense and other federal agencies to conduct research internally rather than through commercial research organizations, to reduce their overall contract research requirements or to exercise their rights to terminate contracts. Any of these actions could limit our ability to obtain new contract awards and adversely affect our revenues and cash flows and our ability to fund our growth.

We also derive a significant portion of our technology development revenues from SBIR contracts. SBIR revenues accounted for approximately 60% and 61% of our consolidated total revenues for the year ended December 31, 2005 and the year ended December 31, 2006, respectively. Contract research, including SBIR, will remain a significant portion of our consolidated total revenues for the foreseeable future. Our strategy for developing innovative technologies and products depends in large part on our ability to continue to enter into and generate revenues from non-SBIR contract research.

Our contract research customer base includes government agencies, corporations and academic institutions. Our customers are not obligated to extend their agreements with us. In addition, we may not be successful in securing future contracts. Our customers priorities regarding funding for certain projects may change and funding resources may no longer be available at previous levels.

We rely and will continue to rely on contracts and grants awarded under the SBIR program for a significant portion of our revenues. A finding by the Small Business Administration, or SBA, that we no longer qualify to receive SBIR funding could adversely affect our business.

We may not qualify to participate in the Small Business Administration s, or SBA s, SBIR program or receive new SBIR awards from federal agencies in the future. In order to qualify for SBIR contracts and grants, at least 51% of our equity must be owned and controlled by U.S. citizens or permanent resident aliens, or by another entity that is at least 51% owned or controlled by U.S. citizens or permanent resident aliens, and we must have 500 or fewer employees. These eligibility criteria are applied as of the time of the award of a contract or grant. In determining whether we satisfy the 51% equity ownership requirement, agreements to merge, stock options, convertible debt and other similar instruments are given present effect by the SBA, as though the underlying securities were actually issued unless the exercisability or conversion of such securities is speculative, remote or beyond the control of the security holder. We therefore believe our outstanding options and warrants held by eligible individuals may be counted as, and our convertible debt may be excluded from, outstanding equity for purposes of meeting the 51% equity ownership requirement.

We believe that we are currently in compliance with the SBIR eligibility criteria but we cannot provide assurance that the SBA will interpret its regulations in our favor. As of December 31, 2006, giving present effect to our outstanding options, we estimate that at least approximately 58% of our equity is owned by U.S. citizens or permanent residents. We must be able to certify that we meet the SBIR ownership and size requirements as of the time we enter into each SBIR contract or grant, and SBA may review our size status in connection with each SBIR contract or grant. As we grow our business, it is foreseeable that we will eventually exceed the SBIR eligibility limitations and we may need to find other sources to fund our research and development efforts. If we are unsuccessful in obtaining additional contracts or funding grants because we cannot meet the eligibility requirements or if our customers decide to reduce or discontinue support of our products, we may be required to seek alternative sources of revenues or capital.

The SBA could determine that, as a result of Carilion Clinic s equity ownership, the number of our employees exceeds the size limitation placed on SBA contract and SBIR grant recipients, and therefore we will not be eligible to receive future SBA contracts and SBIR grants.

In addition to the U.S. ownership eligibility criteria discussed above, to be eligible for SBA contracts and SBIR grants, the number of our employees including those of any entities that are considered to be affiliated with us, cannot exceed 500. As of December 31, 2006, we, including all of our divisions, had 193 full time employees.

Table of Contents

However, in determining whether we are affiliated with any other entity, the SBA analyzes whether another entity controls or has the power to control us. If the SBA determines that another entity controls or has the power to control us, it will aggregate that entity s employees (and the employees of its subsidiaries and affiliates) with our own for purposes of applying the 500 employee test.

The SBA may make an affiliation determination based on stock ownership. For example, the SBA may presume that two or more entities have the power to control a company if the entities each own, control or has the power to control, less than 50 percent of the company s stock, such minority holdings are equal or approximately equal in size, and the aggregate of the minority holdings is large as compared to any other stock holding. However, this presumption may be rebutted by showing that such control or power to control does not in fact exist. As of December 31, 2006, Carilion Clinic held approximately 22.5% of our common stock, and Dr. Kent Murphy held approximately 26.7% of our common stock. Thus, applying the criteria stated above, the SBA could find that both Carilion Clinic and Dr. Murphy own less than 50% of the stock, their percentages are roughly equal, and their respective percentages are large compared to any other stock holding. We believe that the relative beneficial ownership of our individual stockholders rebuts the presumption of control by Carilion Clinic because the shares held by our executive officers and directors constitute the controlling interest in us. However, if the SBA were to make a determination that we are affiliated with Carilion Clinic, we would exceed the size limitations as Carilion Clinic has over 500 employees, and we therefore would lose eligibility for new SBA contracts, public contracts, grants and other awards that are set aside for small businesses, including SBIR grants.

We might require additional capital to support business growth, and this capital might not be available.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new products or enhance our existing products, enhance our operating infrastructure, complete our development activities, build our commercial scale manufacturing facilities and acquire complementary businesses and technologies. In 2006, we had a net loss of $9.4 million and used $9.1 million in cash for operations in addition to $3.4 million cash used for investing activities. Our balance of cash and cash equivalents as of December 31, 2006, was $17.9 million. Accordingly, we may need to engage in equity or debt financings to secure additional funds for these investments.

If we raise additional funds through issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock, including shares of common stock sold in our initial public offering. Furthermore, such financings may jeopardize our ability to apply for SBIR grants or qualify for SBIR contracts or grants, and our dependence on SBIR grants may restrict our ability to raise additional outside capital. In addition, we may not be able to obtain continued SBIR funding, or other additional financing on terms favorable to us, if at all. In order to retain SBIR eligibility, we may be restricted in our ability to raise certain forms of equity capital from institutional investors. For example, in connection with the closing of our financing with Carilion Clinic on December 30, 2005, we were not able to raise all proceeds through the issuance of equity without potentially jeopardizing our SBIR eligibility. We therefore elected to issue debt in the amount of $5.0 million of the total $8.0 million raised in such financing to maintain SBIR eligibility. Under the terms of these notes, we agreed that we will not draw down any amount under our existing senior secured credit facility with First National Bank or incur additional indebtedness other than under certain limited conditions. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly limited.

If we are unable to secure third-party reimbursement for our healthcare products, including our EDAC QUANTIFIER and EN-TACT medical devices, our revenue and net loss could be adversely affected.

In both the United States and foreign markets where we intend to sell our medical products, third-party payors such as the government and health insurance companies are generally responsible for hospital and doctor

Table of Contents

reimbursement for medical products and services. Governments and insurance companies carefully review and increasingly challenge the prices charged for medical products and services. Reimbursement rates from private insurance companies vary depending on the procedure performed, the third party involved, the insurance plan involved, and other factors. In the United States, reimbursement for medical procedures under the Medicare and Medicaid programs is administered by Centers for Medicare & Medicaid Services. Medicare reimburses both hospitals and physicians a pre-determined, fixed amount based on the procedure performed. This fixed amount is paid regardless of the actual costs incurred by the hospital or physician in furnishing the care and is often unrelated to the specific devices used in that procedure. Thus, any reimbursements that hospitals or physicians obtain for using our medical products will generally have to cover any additional costs that hospitals incur in purchasing such products.

Hospitals and medical centers to which we intend to sell our EDAC QUANTIFIER product typically bill the services performed with our products to various third-party payors, such as Medicare, Medicaid and other government programs and private insurance plans. Once our EDAC QUANTIFIER has been cleared for marketing in the United States by the FDA, we anticipate that Medicare reimbursement will available for use of the device in cleared procedures. If, however, hospitals do not obtain sufficient reimbursement from third-party payors for procedures performed with our products, or if governmental and private payors policies do not permit reimbursement for services performed using our products, demand for our product may be negatively impacted.

In countries outside the United States, reimbursement is obtained from various sources, including governmental authorities, private health insurance plans and labor unions. To sell our product in foreign markets, we may need to seek international reimbursement approvals. We cannot be certain whether such required approvals will be obtained in a timely manner or at all.

Furthermore, any regulatory or legislative developments in domestic or foreign markets that eliminate or reduce reimbursement rates for procedures performed with our products could harm our ability to sell our products or cause downward pressure on the prices of our products, either of which would have a negative effect on our product revenue and net loss.

We face and will face substantial competition in several different markets that may adversely affect our results of operations.

We face or will face substantial competition from a variety of companies in several different markets. Our competitors in contract research include, but are not limited to, companies such as General Dynamics Corporation, Lockheed Martin Corporation, SAIC, Inc. and SRA International, Inc. In the molecular technology solutions products market, our competitors include, but are not limited to, large public manufacturers such as The Dow Chemical Company, E.I. du Pont de Nemours and Company, Rohm and Haas Company and 3M Company, as well as emerging companies. In addition, in the MRI contrast agent market our competitors include Amersham Plc, Berlex Laboratories, Inc., Bracco Diagnostics, Inc., and Mallinckrodt Inc. In the sensor solutions products market, our competitors include, but are not limited to, large companies such as Agilent Technologies, Inc., Analog Devices, Inc., Freescale Semiconductor, Inc., JDS Uniphase Corp., Robert Bosch GmbH and Silicon Sensing, as well as emerging companies.

The products that we have developed or are currently developing will compete with other technologically innovative products as well as products incorporating conventional materials and technologies. We expect that our products will compete with companies in a wide range of industries, including semiconductors, electronics, biotechnology, textiles, alternative energy, military, defense, healthcare, telecommunications, industrial measurement, security applications and consumer electronics.

Many of our competitors have longer operating histories, greater name recognition, larger customer bases and significantly greater financial, sales and marketing, manufacturing, distribution, technical and other resources than we do. These competitors may be able to adapt more quickly to new or emerging technologies and changes

Table of Contents

in customer requirements. In addition, current and potential competitors have established or may establish financial or strategic relationships among themselves or with existing or potential customers or other third parties. Accordingly, new competitors or alliances among competitors could emerge and rapidly acquire significant market share. We cannot assure you that we will be able to compete successfully against current or new competitors, in which case our net revenues may fail to increase or may decline.

We may be obligated to repay part of the proceeds received in connection with a grant from the City of Danville, Virginia, for failing make certain agreed upon expenditures and failing to meet certain employment obligations.

In March 2004, we received a grant of $900 thousand from the City of Danville, Virginia under a Grant Agreement to support the expansion of economic and commercial growth within the City. Under the Grant Agreement, we agreed to locate a nanomaterials manufacturing and research facility and maintain its operations in Danville until March 25, 2009. Our obligations under this Grant Agreement require us to incur significant expenditures in order to retain such proceeds from the grant. Specifically, we agreed under the Grant Agreement to invest at least $5.2 million in capital equipment expenditures and $1.2 million in certain facilities by September 25, 2006 and to maintain such investments in our Danville facility until March 25, 2009. We also agreed to create by September 25, 2006 at least 54 new full-time jobs at the Danville facility at an average annual wage of at least $39 thousand plus benefits, and to maintain these jobs at such facility until March 25, 2009. These contractual requirements obligate us to an annual payroll obligation exceeding $2.0 million until March 25, 2009. To the extent such hiring results in salaries in excess of the required minimum wages, our annual payroll obligation could be substantially greater than $2.0 million. As of September 25, 2006, we had not fully met these capital expenditures and job milestones, and, as a result, we may be asked to repay the City of Danville a portion of the $900 thousand in funds based on a formula of the pro rata shortfall of such expenditures and jobs falling below such required levels. Because of the failure to meet these milestones and the continuing obligation to maintain our investment and employees at this location through March 25, 2009, we currently have classified the full amount of the grant as a liability on our balance sheet in anticipation of potentially returning the funds.

We have limited experience manufacturing our products in commercial quantities in a cost-effective manner, which could adversely impact our business.

We have produced most of our products on a custom order basis rather than pursuant to large contracts that require production on a large volume basis. Accordingly, other than the commercial manufacture of products by our Luna Technologies Division, we have no experience manufacturing products in large volume. Because our experience in large scale manufacturing is limited, we may encounter unforeseen difficulties in our efforts to manufacture other products or materials in commercial quantities. For example, we may need to develop or in-license Trimetasphere nanomaterial purification and isolation technology, which would result in manufacturing delays or shortfalls. We may also encounter difficulties and delays in manufacturing our products for the following reasons:

- we plan to expand our manufacturing operations, and our production processes may have to change to accommodate this growth;
- to increase our manufacturing output significantly, we will have to attract and retain qualified employees, who are in short supply, for the assembly and testing operations;
- we might have to sub-contract to outside manufacturers which might limit our control of costs and processes; and
- our manufacturing operations may have to comply with government specifications.

If we are unable to keep up with demand for our products, our revenues could be impaired, market acceptance for our products could be adversely affected and our customers might instead purchase our

Table of Contents

competitors products. Moreover, failure to develop and maintain a U.S. market for goods developed with U.S. government-licensed technology may result in the cancellation of the relevant U.S. government licenses. Our inability to manufacture our products successfully would have a material adverse effect on our revenues.

Even if we are able to manufacture our products on a commercial scale, the cost of manufacturing our products may be higher than we expect. If the costs associated with manufacturing are not significantly less than the prices at which we can sell our products, we may not be able to operate at a profit.

We depend on third-party vendors for specialized components in our manufacturing operations, making us vulnerable to supply shortages and price fluctuations that could harm our business.

We primarily rely on third-party vendors for the manufacture of the specialized components used in our products. Although we do not have any sole source suppliers of materials, the highly specialized nature of our supply requirements poses risks that we may not be able to locate additional sources of the specialized components required in our business. For example, we are aware of only two manufacturers that produce the special lasers used in our optical test equipment. Moreover, none of these third-party vendors is obligated to continue to supply us with components. Our reliance on these vendors subjects us to a number of risks that could impact our ability to manufacture our products and harm our business, including interruption of supply.

Any significant delay or interruption in the supply of components, or our inability to obtain substitute components or materials from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our customers and harm our business.

Our nanotechnology-enabled products are new and may be, or may be perceived as being, harmful to human health or the environment.

While we believe that none of our current products contain chemicals known by us to be hazardous or subject to environmental regulation, it is possible our current or future products, particularly carbon-based nanomaterials, may become subject to environmental regulation. We intend to develop and sell carbon-based nanomaterials as well as nanotechnology-enabled products, which are products that include nanomaterials as a component to enhance those products performance. Nanomaterials and nanotechnology-enabled products have a limited historical safety record. Because of their size or shape or because they may contain harmful elements, such as gadolinium and other rare-earth metals, our products could pose a safety risk to human health or the environment. These characteristics may also cause countries to adopt regulations in the future prohibiting or limiting the manufacture, distribution or use of nanomaterials or nanotechnology-enabled products. Such regulations may inhibit our ability to sell some products containing those materials and thereby harm our business or impair our ability to develop commercially viable products.

The subject of nanotechnology has received negative publicity and has aroused public debate. Government authorities could, for social or other purposes, prohibit or regulate the use of nanotechnology. Ethical and other concerns about nanotechnology could adversely affect acceptance of our potential products or lead to government regulation of nanotechnology-enabled products.

We face risks associated with our international business.

Our Luna Technologies Division and our Luna nanoWorks Division currently conduct business internationally and we might considerably expand our international activities in the future. Our international business operations are subject to a variety of risks associated with conducting business internationally, including:

- having to comply with U.S. export control regulations and policies that restrict our ability to communicate with non-U.S. employees and supply foreign affiliates and customers;

Table of Contents

changes in or interpretations of foreign regulations that may adversely affect our ability to sell our products, perform services or repatriate profits to the United States;

the imposition of tariffs;

hyperinflation or economic or political instability in foreign countries;

imposition of limitations on or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries or joint ventures;

conducting business in places where business practices and customs are unfamiliar and unknown;

the imposition of restrictive trade policies;

the imposition of inconsistent laws or regulations;

the imposition or increase of investment and other restrictions or requirements by foreign governments;

uncertainties relating to foreign laws and legal proceedings;

having to comply with a variety of U.S. laws, including the Foreign Corrupt Practices Act; and

having to comply with licensing requirements.

We do not know the impact that these regulatory, geopolitical and other factors may have on our international business in the future.

RISKS RELATING TO OUR REGULATORY ENVIRONMENT

As a provider of contract research to the U.S. government, we are subject to federal rules, regulations, audits and investigations, the violation or failure of which could adversely affect our business.

We must comply with and are affected by laws and regulations relating to the award, administration and performance of U.S. government contracts. Government contract laws and regulations affect how we do business with our government customers and, in some instances, impose added costs on our business. A violation of specific laws and regulations could result in the imposition of fines and penalties or the termination of our contracts or debarment from bidding on contracts. In some instances, these laws and regulations impose terms or rights that are more favorable to the government than those typically available to commercial parties in negotiated transactions. For example, the U.S. government may terminate any of our government contracts and, in general, subcontracts, at their convenience, as well as for default based on performance.

In addition, U.S. government agencies, including the Defense Contract Audit Agency and the Department of Labor, routinely audit and investigate government contractors. These agencies review a contractor s performance under its contracts, cost structure and compliance with applicable laws, regulations and standards. The U.S. government also may review the adequacy of, and a contractor s compliance with, its internal control systems and policies, including the contractor s purchasing, property, estimating, compensation and management information systems. Any costs found to be improperly allocated to a specific contract will not be reimbursed, while such costs already reimbursed must be refunded. If an audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions,

including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or prohibition from doing business with the U.S. government. In addition, our reputation could suffer serious harm if allegations of impropriety were made against us.

In March 2006, our senior management became aware that seven foreign national citizens who were working for us had access to International Traffic in Arms Regulations, or ITAR, controlled technical data. Such data may be deemed to have been exported/disclosed to certain of these individuals without the required export

Table of Contents

licenses. We do not believe that exports of ITAR-controlled technical data occurred to any other unauthorized parties. Following this discovery, in an effort to ensure full compliance with ITAR we submitted voluntary disclosure of these circumstances to the U.S. Department of State (the Department of State) in April 2006, and provided additional information regarding the matter to the Department of State in June and September 2006. While the Department of State encourages such voluntary disclosure, we nevertheless could be subject to potential investigation and may be exposed to potential regulatory consequences ranging from a no-action letter, government oversight of facilities and export transactions, monetary penalties, and in extreme cases, debarment from government contracting, denial of export privileges and criminal sanctions. In December 2006, we received Enforcement Division of the Office of Defense Trade Controls, Bureau of Political Military Affairs, U.S. Department of State stating that they have completed their review of our voluntary disclosure and were closing this case without taking civil penalty action authorized under ITAR Sec. 127.10. The government, however, reserved the right to reopen the case if the circumstances warrant.

In addition to the risk of government audits and investigations, U.S. government contracts and grants impose requirements on contractors and grantees relating to ethics and business practices, which carry civil and criminal penalties ranging from monetary fines, assessments, loss of the ability to do business with the U.S. government and certain other criminal penalties.

We may also be prohibited from commercially selling certain products that we develop under our Contract Research Group or related products based on the same core technologies if the U.S. government determines that the commercial availability of those products could pose a risk to national security. For example, certain of our wireless technologies have been classified as secret by the U.S. government and as a result we cannot sell them commercially. Any of these determinations would limit our ability to generate product sales and license revenues.

Our healthcare and medical products are subject to a lengthy and uncertain domestic regulatory approval process. If we do not obtain and maintain the necessary domestic regulatory approvals or clearances, we will not be able to market and sell our products for clinical use in the United States.

Certain of our current and potential products will require regulatory clearances or approvals prior to commercialization. In particular, our Trimetasphere nanomaterial-based MRI contrast agent and our EDAC and EN-TACT ultrasound diagnostic devices for measuring certain medical conditions will be considered a drug and medical devices, respectively, under the Federal Food, Drug & Cosmetic Act, or FDC Act. Drugs and some medical devices are subject to rigorous preclinical testing and other approval requirements by the Food and Drug Administration, or FDA, pursuant to the FDC Act, and regulations under the FDC Act, as well as by similar health authorities in foreign countries. Various federal statutes and regulations also govern or influence the testing, manufacturing, safety, labeling, packaging, advertising, storage, registration, listing and recordkeeping related to marketing of these products. The process of obtaining these clearances or approvals and the subsequent compliance with appropriate federal statutes and regulations require the expenditure of substantial resources. We cannot be certain that any required FDA or other regulatory approval will be granted or, if granted, will not be withdrawn. Our failure to obtain the necessary regulatory approvals, or our failure to obtain them in a timely manner, will prevent or delay our commercialization of new products and our business or our stock price could be adversely affected.

In general, the FDA regulates the research, testing, manufacturing, safety, labeling, storage, record keeping, promotion, distribution and production of medical devices in the United States to ensure that medical products distributed domestically are safe and effective for their intended uses. In order for us to market our EDAC and EN-TACT products for clinical use in the United States, we generally must first obtain clearance from the FDA pursuant to Section 510(k) of the Food, Drug, and Cosmetic Act. Clearance under Section 510(k) requires demonstration that a new device is substantially equivalent to another device with 510(k) clearance or grandfather status. If we significantly modify our products after they receive FDA clearance, the FDA may require us to submit a separate 510(k) or premarket approval application, or PMA, for the modified product

Table of Contents

before we are permitted to market the products in the U.S. In addition, if we develop products in the future that are not considered to be substantially equivalent to a device with 510(k) clearance or grandfather status, we will be required to obtain FDA approval by submitting a PMA.

The FDA may not act favorably or quickly in its review of our 510(k) or PMA submissions, or we may encounter significant difficulties and costs in our efforts to obtain FDA clearance or approval, all of which could delay or preclude sale of new products for clinical use in the United States. Furthermore, the FDA may request additional data or require us to conduct further testing, or compile more data, including clinical data and clinical studies, in support of a 510(k) submission. The FDA may also, instead of accepting a 510(k) submission, require us to submit a PMA, which is typically a much more complex and burdensome application than a 510(k). To support a PMA, the FDA would likely require that we conduct one or more clinical studies to demonstrate that the device is safe and effective. We may not be able to meet the requirements to obtain 510(k) clearance or PMA approval, or the FDA may not grant any necessary clearances or approvals. In addition, the FDA may place significant limitations upon the intended use of our products as a condition to a 510(k) clearance or PMA approval. Product applications can also be denied or withdrawn due to failure to comply with regulatory requirements or the occurrence of unforeseen problems following clearance or approval. Any delays or failure to obtain FDA clearance or approvals of new products we develop, any limitations imposed by the FDA on new product use, or the costs of obtaining FDA clearance or approvals could have a material adverse effect on our business, financial condition and results of operations.

Complying with FDA regulations is an expensive and time-consuming process. Our failure to comply fully with such regulations could subject us to enforcement actions.

Our commercially distributed medical device products will be subject to numerous post-market regulatory requirements, including the following:

- Quality System Regulation, or QSR, which requires manufacturers to follow elaborate design, testing, control, documentation and other quality assurance procedures during the manufacturing process;
- labeling regulations;
- the FDA s general prohibition against false or misleading statements in the labeling or promotion of products for unapproved or off-label uses;
- the Reports of Corrections and Removals regulation, which requires that manufacturers report to the FDA recalls and field corrective actions taken to reduce a risk to health or to remedy a violation of the FFDCA that may pose a risk to health; and
- the Medical Device Reporting regulation, which requires that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur.

We will also become subject to inspection and marketing surveillance by the FDA to determine our compliance with regulatory requirements. If the FDA finds that we have failed to comply, it can institute a wide variety of enforcement actions, ranging from a regulatory letter to a public warning letter to more severe civil and criminal sanctions. Our failure to comply with applicable requirements could lead to an enforcement action that may have an adverse effect on our financial condition and results of operations.

If our manufacturing facilities do not meet Federal, State or foreign country manufacturing standards, we may be required to temporarily cease all or part of our manufacturing operations, which would result in product delivery delays and negatively impact revenue.

Our manufacturing facilities are subject to periodic inspection by regulatory authorities and our operations will continue to be regulated by the FDA for compliance with Good Manufacturing Practice requirements

27

Table of Contents

contained in the FDA s Quality System Regulations, or QSR. We are also required to comply with International Organization for Standardization, or ISO, quality system standards in order to produce products for sale in Europe. If we fail to continue to comply with Good Manufacturing Practice requirements or ISO standards, we may be required to cease all or part of our operations until we comply with these regulations. Obtaining and maintaining such compliance is difficult and costly. We cannot be certain that our facilities will be found to comply with Good Manufacturing Practice requirements or ISO standards in future inspections and audits by regulatory authorities.

Our medical products are subject to various international regulatory processes and approval requirements. If we do not obtain and maintain the necessary international regulatory approvals, we may not be able to market and sell our medical products in foreign countries.

To be able to market and sell our products in other countries, we must obtain regulatory approvals and comply with the regulations of those countries. These regulations, including the requirements for approvals and the time required for regulatory review, vary from country to country. Obtaining and maintaining foreign regulatory approvals are expensive, and we cannot be certain that we will receive regulatory approvals in any foreign country in which we plan to market our products. If we fail to obtain regulatory approval in any foreign country in which we plan to market our products, our ability to generate revenue will be harmed.

The European Union requires that manufacturers of medical products obtain the right to affix the CE mark to their products before selling them in member countries of the European Union. The CE mark is an international symbol of adherence to quality assurance standards and compliance with applicable European medical device directives. In order to obtain the right to affix the CE mark to products, a manufacturer must obtain certification that its processes meet certain European quality standards.

We have not yet received permission to affix the CE mark to our medical products. We do not know whether we will be able to obtain permission to affix the CE mark for new or modified products. If we are unable to obtain permission to affix the CE mark to our products, we will not be able to sell our products in member countries of the European Union.

We are subject to significant foreign and domestic government regulations, including environmental and health and safety regulations, and failure to comply with these regulations could harm our business.

Our facilities and current and proposed activities involve the use of a broad range of materials that are considered hazardous under applicable laws and regulations. Accordingly, we are subject to a number of foreign, federal, state, and local laws and regulations relating to health and safety, protection of the environment, and the storage, use, disposal of, and exposure to, hazardous materials and wastes. We could incur costs, fines and civil and criminal penalties, personal injury and third party property damage claims, or could be required to incur substantial investigation or remediation costs if we were to violate or become liable under environmental, health and safety laws. Moreover, a failure to comply with environmental laws could result in fines and the revocation of environmental permits, which could prevent us from conducting our business. Liability under environmental laws can be joint and several and without regard to fault. There can be no assurance that violations of environmental health and safety laws will not occur in the future as a result of the inability to obtain permits, human error, equipment failure or other causes. Environmental laws could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations, which could harm our business. Accordingly, violations of present and future environmental laws could restrict our ability to expand facilities, pursue certain technologies, and could require us to acquire costly equipment, or to incur potentially significant costs to comply with environmental regulations.

The European Union Directive 2002/96/EC on Waste Electrical and Electronic Equipment, known as the WEEE Directive, requires producers of certain electrical and electronic equipment, including monitoring instruments, to be financially responsible for specified collection, recycling, treatment and disposal of past and

Table of Contents

present covered products placed on the market in the European Union. As a manufacturer of covered products, we may be required to register as a producer in some European Union countries, and we may incur some financial responsibility for the collection, recycling, treatment and disposal of both new product sold, and product already sold prior to the WEEE Directive s enforcement date, including the products of other manufacturers where these are replaced by our own products. European Union Directive 2002/95/EC on the Restriction of the use of Hazardous Substances in electrical and electronic equipment, known as the RoHS Directive, restricts the use of certain hazardous substances, including mercury, lead and cadmium in specified covered products; however, the RoHS Directive currently exempts monitoring instruments from its requirements. If the European Commission were to remove this exemption in the future, we would be required to change our manufacturing processes and redesign products regulated under the RoHS Directive in order to be able to continue to offer them for sale within the European Union. For some products, substituting certain components containing regulated hazardous substances may be difficult, costly or result in production delays. We will continue to review the applicability and impact of both directives on the sale of our products within the European Union, and although we cannot currently estimate the extent of such impact, they are likely to result in additional costs and could require us to redesign or change how we manufacture our products, any of which could adversely affect our operating results. Failure to comply with the directives could result in the imposition of fines and penalties, inability to sell covered products in the European Union and loss of revenues.

Compliance with foreign, federal, state and local environmental laws and regulations represents a small part of our present budget. If we fail to comply with any such laws or regulations, however, a government entity may levy a fine on us or require us to take costly measures to ensure compliance. Any such fine or expenditure may adversely affect our development. We are committed to complying with and, to our knowledge, are in compliance with, all governmental regulations. We cannot predict the extent to which future legislation and regulation could cause us to incur additional operating expenses, capital expenditures, or restrictions and delays in the development of our products and properties.

RISKS RELATING TO OUR INTELLECTUAL PROPERTY

Our proprietary rights may not adequately protect our technologies.

Our commercial success will depend in part on our obtaining and maintaining patent, trade secret, copyright and trademark protection of our technologies in the United States and other jurisdictions as well as successfully enforcing this intellectual property and defending this intellectual property against third-party challenges. We will only be able to protect our technologies from unauthorized use by third parties to the extent that valid and enforceable intellectual property protections, such as patents or trade secrets, cover them. In particular, we place considerable emphasis on obtaining patent and trade secret protection for significant new technologies, products and processes. Furthermore, the degree of future protection of our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. The degree of future protection of our proprietary rights is also uncertain for products that are currently in the early stages of development such as the Trimetasphere carbon nanomaterials products because we cannot predict which of these products will ultimately reach the commercial market or whether the commercial versions of these products will incorporate proprietary technologies.

Our patent position is highly uncertain and involves complex legal and factual questions. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. For example:

- we or our licensors might not have been the first to make the inventions covered by each of our pending patent applications and issued patents;
- we or our licensors might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies;

Table of Contents

- it is possible that none of our pending patent applications or the pending patent applications of our licensors will result in issued patents;

- our issued patents and issued patents of our licensors may not provide a basis for commercially viable technologies, may not provide us with any competitive advantages, or may be challenged and invalidated by third parties; and

- we may not develop additional proprietary technologies that are patentable.

Patents may not be issued for any pending or future pending patent applications owned by or licensed to us, and claims allowed under any issued patent or future issued patent owned or licensed by us may not be valid or sufficiently broad to protect our technologies. Moreover, protection of certain of our intellectual property may be unavailable or limited in the United States or in foreign countries, and certain of our products including our Trimetasphere carbon nanomaterials products do not have foreign patent protection. Any issued patents owned by or licensed to us now or in the future may be challenged, invalidated, or circumvented, and the rights under such patents may not provide us with competitive advantages. In addition, competitors may design around our technology or develop competing technologies. Intellectual property rights may also be unavailable or limited in some foreign countries, and in the case of certain products no foreign patents were filed or can be filed. This could make it easier for competitors to capture or increase their market share with respect to related technologies. Although we are not currently involved in any legal proceedings related to intellectual property, we could incur substantial costs to bring suits in which we may assert our patent rights against others or defend ourselves in suits brought against us. An unfavorable outcome of any such litigation could have a material adverse effect on our business and results of operations.

We also rely on trade secrets to protect our technology, especially where we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. We vigorously pursue confidentiality agreements and contractual provisions with our collaborators, employees, and consultants to protect our trade secrets and proprietary know-how. These agreements may be breached and or may not have adequate remedies for such breach. While we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors or scientific and other advisors, or those of our strategic partners, may unintentionally or willfully disclose our information to competitors. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, our enforcement efforts would be expensive and time consuming, and the outcome would be unpredictable. In addition, courts outside the United States are sometimes unwilling to protect trade secrets. Moreover, if our competitors independently develop equivalent knowledge, methods and know-how, it will be more difficult for us to enforce our rights and our business could be harmed.

If we are not able to defend the patent or trade secret protection position of our technologies, then we will not be able to exclude competitors from developing or marketing competing technologies, and we may not generate enough revenues from product sales to justify the cost of development of our technologies and to achieve or maintain profitability.

We also rely on trademarks to establish a market identity for Luna and Luna products. To maintain the value of our trademarks, we might have to file lawsuits against third parties to prevent them from using trademarks confusingly similar to or dilutive of our registered or unregistered trademarks. Also, we might not obtain registrations for our pending trademark applications, and might have to defend our registered trademark and pending trademark applications from challenge by third parties. Enforcing or defending our registered and unregistered trademarks might result in significant litigation costs and damages, including the inability to continue using certain trademarks.

Third parties may claim that we infringe their intellectual property, and we could suffer significant litigation or licensing expense as a result.

Various U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in our technology areas. Such third parties may claim that we infringe their patents. Because patent

Table of Contents

applications can take several years to result in a patent issuance, there may be currently pending applications, unknown to us, which may later result in issued patents that our technologies may infringe. For example, we are aware of competitors with patents in technology areas applicable to our optical test equipment products. Such competitors may allege that we infringe these patents. There could also be existing patents of which we are not aware that our technologies may inadvertently infringe. If third parties assert claims against us alleging that we infringe their patents or other intellectual property rights including third parties that have asserted claims against businesses that we have acquired prior to our acquisition of these businesses we could incur substantial costs and diversion of management resources in defending these claims, and the defense of these claims could have a material adverse effect on our business, financial condition, and results of operations. In addition, if third parties assert claims against us and we are unsuccessful in defending against these claims, these third parties may be awarded substantial damages, as well as injunctive or other equitable relief against us, which could effectively block our ability to make, use, sell, distribute, or market our products and services in the United States or abroad. For example, we acquired a business that had received a letter in 2002 from a competitor alleging infringement of certain patents. The competitor sent an additional letter on January 14, 2004 to the business that we acquired, again alleging infringement of the competitor s patents. Neither we nor the business that we acquired have received any further communications from this third party. We cannot currently predict whether this third party, or any other third party, will assert a claim against us, or whether any third parties that have asserted such claims against businesses that we have acquired will assert claims or pursue infringement litigation against us; nor can we predict the ultimate outcome of any such potential claims or litigation.

Commercial application of nanotechnologies in particular, or technologies involving nanomaterials, is new and the scope and breadth of patent protection is uncertain. Consequently, the patent positions of companies involved in nanotechnologies have not been tested and complex legal and factual questions for which important legal principles will be developed or may remain unresolved. In addition, it is not clear whether such patents will be subject to interpretations or legal doctrines that differ from conventional patent law principles. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our nanotechnology-related intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our nanotechnology-related patents or in third party patents.

In the event that a claim relating to intellectual property is asserted against us, or third parties not affiliated with us hold pending or issued patents that relate to our products or technology, we may seek licenses to such intellectual property or challenge those patents. However, we may be unable to obtain these licenses on commercially reasonable terms, if at all, and our challenge of the patents may be unsuccessful. Our failure to obtain the necessary licenses or other rights could prevent the sale, manufacture, or distribution of our products and, therefore, could have a material adverse effect on our business, financial condition, and results of operations.

A substantial portion of our technology is subject to retained rights of our licensors, and we may not be able to prevent the loss of those rights or the grant of similar rights to third parties.

A substantial portion of our technology is licensed from academic institutions, corporations and government agencies. Under these licensing arrangements, a licensor may obtain rights over the technology, including the right to require us to grant a license to one or more third parties selected by the licensor or that we provide licensed technology or material to third parties for non-commercial research. The grant of a license for any of our core technologies to a third party could have a material and adverse effect on our business. In addition, some of our licensors retain certain rights under the licenses, including the right to grant additional licenses to a substantial portion of our core technology to third parties for noncommercial academic and research use. It is difficult to monitor and enforce such noncommercial academic and research uses, and we cannot predict whether the third party licensees would comply with the use restrictions of such licenses. We could incur substantial expenses to enforce our rights against them. We also may not fully control the ability to assert or defend those patents or other intellectual property which we have licensed from other entities, or which we have licensed to other entities.

Table of Contents

In addition, some of our licenses with academic institutions give us the right to use certain technology previously developed by researchers at these institutions. In certain cases we also have the right to practice improvements on the licensed technology to the extent they are encompassed by the licensed patents and within our field of use. Our licensors may currently own and may in the future obtain additional patents and patent applications that are necessary for the development, manufacture and commercial sale of our anticipated products. We may be unable to agree with one or more academic institutions from which we have obtained licenses that certain intellectual property developed by researchers at these academic institutions is covered by our existing licenses. In the event that the new intellectual property is not covered by our existing licenses, we would be required to negotiate a new license agreement. We may not be able to reach agreement with current or future licensors on commercially reasonable terms, if at all, or the terms may not permit us to sell our products at a profit after payment of royalties, which could harm our business.

Some of our patents may cover inventions that were conceived or first reduced to practice under, or in connection with, U.S. government contracts or other federal funding agreements. With respect to inventions conceived or first reduced to practice under a federal funding agreement, the U.S. government may retain a nonexclusive, non-transferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the invention throughout the world. We may not have succeeded in our efforts to retain title in patents, maintain ownership of intellectual property or in limiting the U.S. government s rights in our proprietary technologies and intellectual property whether such intellectual property was developed in the performance of a federal funding agreement or developed at private expense.

RISKS RELATING TO OUR COMMON STOCK

Our common stock price has been volatile and we expect that the price of our common stock will fluctuate substantially in the future.

Before our initial public offering, there was no public market for our common stock, and in the future, an active public trading market may not be sustained. The public trading price for our common stock will continue to be affected by a number of factors, including:

- changes in earnings estimates, investors perceptions, recommendations by securities analysts or our failure to achieve analysts earning estimates;
- changes in our status as an entity eligible to receive SBIR contracts and grants;
- quarterly variations in our or our competitors results of operations;
- general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors;
- announcements by us, or our competitors, of acquisitions, new products, significant contracts, commercial relationships or capital commitments;
- commencement of, or involvement in, litigation;
- any major change in our board of directors or management;
- changes in governmental regulations or in the status of our regulatory approvals;
- announcements related to patents issued to us or our competitors and to litigation;

a lack of, limited or negative industry or security analyst coverage; and

developments in our industry.

In addition, the stock prices of many technology companies have experienced wide fluctuations that have often been unrelated to the operating performance of those companies. These factors may materially and adversely affect the market price of our common stock.

Table of Contents

If there are substantial sales of our common stock, our stock price could decline.

If our existing stockholders sell a large number of shares of our common stock or the public market perceives that these sales may occur, the market price of our common stock could decline.

As of the date of our initial public offering, employees and former employees holding approximately 1.8 million shares of our common stock or options exercisable for our common stock had entered into an agreement to not sell more than 20.0% of such shares in any year during the five years following the effective date of our initial public offering, provided that if any shares subject to such annual limit are not sold in a given year then such shares may be sold in subsequent years. In addition, certain members of our management holding options exercisable for approximately 2.2 million shares of our common stock had entered into an agreement not to sell more than 15.0% of such shares in any year during the five years following the effective date of such initial public offering. On January 23, 2007, certain members of our management team entered into amended and restated stock sale restriction agreements whereby such officers agreed not to sell more than a fixed number of beneficially held shares of our common stock for a two year period ending December 31, 2008. As of the January 23, 2007, such officers beneficially owned an aggregate of 5,010,453 shares of our common stock, including vested and unvested options to purchase common stock, which are subject to the sale restriction agreements. We have the right to waive any of these resale restrictions for employees and management at our discretion, and in such instance, the shares would become freely tradable. Upon the expiration or waiver of these resale restrictions, these individuals may sell, or the public market may perceive that these individuals will sell, a large number of shares of our common stock, which may cause the market price of our common stock to decline.

Our financial results may vary significantly from period to period, which may reduce our stock price.

Historically, our financial results have exhibited significant seasonality. For example, we typically have lower product and license revenue in the first half of the year and higher product revenue in the second half of the year. We expect such seasonality to continue. In addition, our financial results may fluctuate as a result of a number of factors, many of which are outside of our control, which may cause the market price of our common stock to fall. For these reasons, comparing our operating results on a period-to-period basis may not be meaningful, and you should not rely on our past results as an indication of our future performance. Our financial results may be negatively affected by any of the risk factors listed in this Risk factors section and, in particular, the following risks:

- a reduction of contract research funding;
- decisions by government agencies, academic institutions or corporations not to exercise contract options or to modify, curtail or terminate our major contracts;
- failure to estimate or control contract costs;
- adverse judgments or settlements in legal disputes;
- expenses related to acquisitions, mergers or joint ventures; and
- other one-time financial charges.

We have and will continue to incur increased costs as a result of being a public company.

As a public company, we have and will continue to incur significant legal, accounting and other expenses. We have and will continue to incur costs associated with our public company reporting requirements. We also have and will continue to incur costs associated with corporate governance requirements, including requirements under the Sarbanes-Oxley Act of 2002, as well as rules implemented by the SEC and the National Association of Securities Dealers, Inc., or NASD. We expect these rules and regulations to increase our legal and financial compliance costs and to make some activities more time-consuming and costly. We cannot accurately predict or estimate the amount of additional costs we

may incur or the timing of such costs.

Table of Contents

If our internal controls over financial reporting are found not to be effective or if we make disclosure of existing or potential significant deficiencies or material weaknesses in those controls, Investors could lose confidence in our financial reports, and our stock price may be adversely affected.

Beginning with our Annual Report for the year ending December 31, 2007, Section 404 of the Sarbanes-Oxley Act of 2002 requires us to include an internal control report with our Annual Report on Form 10-K. That report must include management s assessment of the effectiveness of our internal control over financial reporting as of the end of the fiscal year. Additionally, our independent registered public accounting firm will be required to issue a report on management s assessment of our internal control over financial reporting and a report on their evaluation of the operating effectiveness of our internal control over financial reporting beginning with our Annual Report for the year ending December 31, 2008.

We continue to evaluate our existing internal control over financial reporting against the standards adopted by the Public Company Accounting Oversight Board, or PCAOB. During the course of our ongoing evaluation of the internal controls, we may identify areas requiring improvement, and may have to design enhanced processes and controls to address issues identified through this review. Remedying any deficiencies, significant deficiencies or material weaknesses that we or our independent registered public accounting firm may identify, may require us to incur significant costs and expend significant time and management resources. We cannot assure you that any of the measures we implement to remedy any such deficiencies will effectively mitigate or remedy such deficiencies. Investors could lose confidence in our financial reports, and our stock price may be adversely affected, if our internal controls over financial reporting are found not to be effective by management or by an independent registered public accounting firm or if we make disclosure of existing or potential significant deficiencies or material weaknesses in those controls.

Our independent auditors have previously identified material weaknesses and significant deficiencies in our internal controls, and if we are unable to develop, implement and maintain appropriate controls we will not be able to comply with applicable regulatory requirements imposed on reporting companies.

In connection with the audit of our financial statements for each of the three years in the period ended December 31, 2005, our independent registered public accounting firm identified certain weaknesses in our internal control over financial reporting, which they considered to be material weaknesses and significant deficiencies. Specifically, because we previously lacked appropriate resources and personnel with sufficient experience, our independent registered public accounting firm noted weaknesses in our ability to account for certain complex accounting transactions relating to business combinations and consolidation matters, to account for share-based payments to employees and consultants, as well as weaknesses in our ability to prepare timely consolidated financial statements in accordance with U.S. generally accepted accounting principles and Regulation S-X under the Securities Exchange Act of 1934, as amended. We also lacked adequate cutoff and accrual procedures which materially affected recognition of expenses and, in certain instances, related revenues. These weaknesses led to significant audit adjustments for each of the three years in the period ended December 31, 2005 which had a material effect on our financial statements.

Our business operations were relatively small in previous years and, as a result, we have historically operated with very limited staffing of key accounting functions. Such limited staffing historically made it difficult for us to segregate certain accounting functions. Because of these circumstances, we have relied on outside consultants to supplement our internal accounting staff and to meet our financial reporting obligations.

Since December 31, 2005, we have hired a new Chief Financial Officer, a new Controller, and other accounting staff positions. These individuals have prior experience handling external financial reporting in a public company environment and should improve our ability to prepare timely consolidated financial statements as well to address more complex accounting matters, such as business combinations and share-based payments.

We also intend to establish new and enhanced systems of internal control that we believe will be necessary to allow management to report on, and our independent auditors to attest to, the design and effectiveness of our internal controls. To improve the timeliness of our financial reporting, we have instituted a detailed closing

Table of Contents

schedule to enhance overall completeness and quality of our reporting. This schedule was first implemented in March 2006 and provides guidance on routine processes, such as procedures for handling key account reconciliations, month end cutoff procedures for accounts payable and accrued expenses as well as cutoff procedures for revenue and related receivables. The documentation will be expanded in later periods to provide detailed guidance of our entire closing process including preparation of interim and year-end consolidated financial statements and related notes.

Although we do not believe we have material weaknesses or significant deficiencies related to our policies and procedures that pertain to maintenance of records, authorizations of receipts and expenditures, or prevention or timely detection of unauthorized acquisition, use, or disposition of our assets, we have not performed specific tests to determine the effectiveness of key controls within these policies and procedures. We intend to monitor those policies and procedures in connection with the establishment of a formally documented system of internal control. We are continuing documentation of our internal control processes in order to identify additional areas for improvement as well as in anticipation of our future reporting requirements under the Sarbanes-Oxley Act of 2002.

While we anticipate being able to implement fully the requirements relating to internal control and all other applicable requirements of the Sarbanes-Oxley Act of 2002 in a timely fashion, we cannot be certain as to the timing of the completion of our evaluation and testing and any necessary remediation or the impact of the same on our operations. Our development, implementation and maintenance of appropriate internal controls will depend materially both on our successful hiring and retention of key senior accounting personnel. If we are not able to complete the assessment required under Section 404 in a timely manner, we would be unable to conclude that our internal control over financial reporting is effective as of December 31, 2007.

If we are unable to retain and attract qualified personnel, to implement and integrate financial reporting and accounting systems or if we are unable to scale these systems to our growth, we may not have adequate, accurate or timely financial information, and we may be unable to meet our reporting obligations or comply with the requirements of the SEC, the NASDAQ Global Market or the Sarbanes-Oxley Act of 2002, which could result in the imposition of sanctions, including the suspension or delisting of our common stock from the NASDAQ Global Market and the inability of registered broker dealers to make a market in our common stock, or investigation by regulatory authorities. Any such action or other negative results caused by our inability to meet our reporting requirements or comply with legal and regulatory requirements or by disclosure of an accounting, reporting or control issue could adversely affect the price of our common stock. Further and continued determinations that there are significant deficiencies or material weaknesses in the effectiveness of our internal control over financial reporting could also reduce our ability to obtain financing or could increase the cost of any financing we obtain and require additional expenditures to comply with applicable requirements.

As of December 31, 2006, our directors and management collectively controlled approximately 49.6% of our outstanding common stock.

As of December 31, 2006, our directors and executive officers and their affiliates collectively controlled approximately 49.6% of our outstanding common stock. As a result, these stockholders, if they act together, will be able to influence our management and affairs and all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. You and other stockholders will have minimal influence over these actions. This concentration of ownership may have the effect of delaying or preventing a change in control of our company and might adversely affect the market price of our common stock.

Anti-takeover provisions in our amended and restated certificate of incorporation and bylaws and Delaware law could discourage a takeover.

Our amended and restated certificate of incorporation and bylaws and Delaware law contain provisions that might enable our management to resist a takeover. These provisions include:

- a classified board of directors;

Table of Contents

- advance notice requirements to stockholders for matters to be brought at stockholder meetings;

- a supermajority stockholder vote requirement for amending certain provisions of our amended and restated certificate of incorporation and bylaws; and

- the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer.

These provisions might discourage, delay or prevent a change in control of our company or a change in our management. The existence of these provisions could adversely affect the voting power of holders of common stock and limit the price that investors might be willing to pay in the future for shares of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

Our corporate headquarters are located in Roanoke, Virginia, and are centrally located to our research, development and manufacturing facilities in Blacksburg, Danville, Hampton and Charlottesville, Virginia and our sales office in McLean, Virginia. Each of these properties is shared by our Products Division and our Technology Development Division. These properties are summarized below:

- we lease approximately 24,000 square feet of space in Roanoke, Virginia, for our corporate headquarters, general administrative functions, and certain research and development activities;

- we lease approximately 32,000 square feet of space in Blacksburg, Virginia, near Virginia Tech, primarily for technology development activities and for the development and manufacturing of our medical device products and our instrumentation and test & measurement products;

- we lease a facility in Danville, Virginia consisting of approximately 24,000 square feet for nanomaterials manufacturing and for new drug research and development;

- we lease approximately 10,000 square feet of space in Hampton, Virginia, near the NASA Langley Research Center, for research and development of non-destructive evaluation and certain ultrasound products;

- we lease approximately 8,000 square feet of space in Charlottesville, Virginia, near the University of Virginia, for various technology development activities and for advanced materials research; and

- we lease additional office space in McLean, Virginia for sales, general and administrative functions.

We believe that our existing facilities are adequate for our current needs and that suitable additional or substitute space will be available as needed to accommodate expansion of our operations.

ITEM 3. LEGAL PROCEEDINGS

In July 2005, we received a letter from legal counsel retained by a former employee and consultant that such law firm is investigating whether such former employee has any claims against us, including breaches of contract, fiduciary duty, implied covenants of good faith and fair dealing as well as potential violations of minority stockholder rights that such former employee may have as a stockholder in one of our subsidiaries. On May 30, 2006, we were served process of a complaint filed by the former employee in the Circuit Court for the City of Roanoke, Virginia, alleging that we breached our consulting contract with the former employee, and that we are indebted to the former employee in an unspecified amount of at least $100 thousand. We have answered

Table of Contents

the complaint and intend to defend the company vigorously in this matter. While we believe the former employee s claims are without merit, counsel for such former employee has indicated that it may file additional claims against us. We cannot predict whether such former employee will file additional litigation against us or our subsidiaries or the ultimate outcome of any such litigation.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of security holders during the quarter ended December 31, 2006.

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 has been traded on the NASDAQ Global Market (formerly the NASDAQ National Market) under the symbol LUNA since our initial public offering on June 2, 2006. The following table sets forth the high and low sales prices of our common stock for each period indicated and are as reported by NASDAQ.

	2006		2005	
Fiscal	**High**	**Low**	**High**	**Low**
First Quarter	N/A	N/A	N/A	N/A
Second Quarter	$ 6.22	$ 5.91	N/A	N/A
Third Quarter	$ 6.00	$ 3.12	N/A	N/A
Fourth Quarter	$ 4.09	$ 3.27	N/A	N/A

As of March 15, 2007, there were 79 stockholders of record of our common stock, although we believe that there are a significantly larger number of beneficial owners of our common stock. As of March 15, 2007, the closing price of our common stock was $2.98 per share as reported the NASDAQ Global Market.

STOCK PERFORMANCE GRAPH

The graph set forth below compares the cumulative total stockholder return on our common stock between our initial public offering on June 2, 2006 and December 31, 2006, versus the cumulative total return of the NASDAQ Composite Index and Russell 2000 Growth Index over the same period. This graph assumes the investment of $100,000 on June 2, 2006 in our common stock, the NASDAQ Composite Index and the Russell 2000 Growth Index, and assumes the reinvestment of dividends, if any. We have never paid dividends on our common stock and have no present plans to do so.

The comparisons shown in the graph below are based upon historical data. We caution that the stock price performance shown in the graph below is not necessarily indicative of, nor is it intended to forecast, the potential future performance of our common stock.

Table of Contents

	6/2/06	12/31/06
Luna Innovations Incorporated	$ 100,000	$ 59,700
NASDAQ Composite Index	$ 100,000	$ 108,800
Russell 2000 Growth Index	$ 100,000	$ 104,200

The preceding Stock Performance Graph is not deemed filed with the Securities and Exchange Commission and shall not be incorporated by reference in any of our filings under the Securities Act of 1993, as amended, or the Securities Exchange Act of 1934, as amended, whether made before of after the date hereof and irrespective of any general incorporation language in any such filing.

DIVIDEND POLICY

Since our inception, we have not declared or paid any cash dividends. We currently expect to retain earnings for use in the operation and expansion of our business and therefore do not anticipate paying any cash dividends in the foreseeable future.

UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Unregistered Sales of Equity Securities during the Three Months Ended December 31, 3006

During the three months ended December 31, 2006, we issued and sold an aggregate of 920 shares of common stock to certain existing and former employees upon the exercise of options awarded prior to the completion of our initial public offering under our 2003 Stock Plan. Such option exercises occurred prior to the filing of our Form S-8 registration statement on November 16, 2006. We received aggregate proceeds of $326 as a result of the exercise of these options. We believe these transactions were exempt from registration pursuant to Rule 701 promulgated under the Securities Act of 1933, as amended (the Securities Act) or Section 4(2) of the Securities Act.

Table of Contents

Use of Proceeds from Sale of Registered Equity Securities

On June 6, 2006, we completed the initial public offering of our common stock, $0.001 par value per share, pursuant to our Registration Statement on Form S-1, as amended (File No. 333-131764) that was declared effective on June 2, 2006. We sold 3,500,000 shares in the offering at a price to the public of $6.00 per share and received net proceeds of $17.87 million in the offering.

We are using, or expect to use, the net proceeds of the offering principally to fund further development and expansion of our products and product candidates, in particular our nanomaterial and ultrasound-related medical product candidates, and for general working capital purposes. We may also use a portion of the net proceeds for the acquisition of, or investment in, companies, technologies, products or assets that complement our business. We have no present commitments or binding agreements to enter into any acquisitions or investments. Pending these uses, we intend to continue to invest the net proceeds of our initial public offering in short-term, investment-grade interest-bearing securities or guaranteed obligations of the U.S. government.

Table of Contents

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with our consolidated financial statements and the accompanying notes and Management s Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this report. The selected data in this section is not intended to replace the consolidated financial statements.

	Years Ended December 31,				
(In thousands, except share and per share data)	**2002**	**2003**	**2004**	**2005**	**2006**
Consolidated Statements of Operations Data:					
Revenues:					
Contract research revenues	$ 11,084	$ 10,358	$ 13,835	$ 15,380	$ 18,788
Product sales and license revenues	4,643	7,234	8,752	1,074	4,758
Total revenues	15,727	17,592	22,587	16,454	23,546
Cost of revenues:					
Contract research costs	9,143	8,949	10,985	12,552	14,141
Product sales and license costs	3,884	1,543	2,881	410	2,221
Total cost of revenues	13,027	10,492	13,866	12,962	16,362
Gross profit	2,700	7,100	8,721	3,492	7,184
Operating expense	4,491	4,856	4,190	6,004	17,150
Operating income (loss)	(1,791)	2,244	4,531	(2,512)	(9,966)
Other income (expense)	41	(138)	(257)	2	26
Interest income (expense), net	(469)	(87)	(90)	(41)	516
Income (loss) before income taxes	(2,219)	2,019	4,184	(2,551)	(9,424)
Income tax expense (benefit)	(652)	886	128	(557)	13
Net income (loss)	$ (1,567)	$ 1,133	$ 4,056	$ (1,994)	$ (9,437)
Net income (loss) per common share:					
Basic	$ (0.54)	$ 0.40	$ 1.40	$ (0.53)	$ (1.14)
Diluted	$ (0.54)	$ 0.39	$ 1.14	$ (0.53)	$ (1.14)
Weighted-average number of shares used in per share calculations:					
Basic	2,878,460	2,843,349	2,903,022	3,735,811	8,283,074
Diluted	2,878,460	2,905,849	3,561,788	3,735,811	8,283,074
Consolidated Balance Sheet Data (at end of Period):					
Cash and cash equivalents	$ 1,293	$ 642	$ 610	$ 12,515	$ 17,867
Working capital (deficit)	(5,325)	(3,008)	257	11,843	19,283
Total assets	6,807	5,497	7,747	24,134	35,217
Total current liabilities	9,802	7,211	4,474	6,993	7,560
Total debt(1)	24	286	303	5,431	5,328
Stockholders equity (deficit)	(3,088)	(1,932)	2,167	10,854	22,075

(1) Includes capital lease obligations.

Please see Critical Accounting Policies and Estimates under Item 7 of this Annual Report on Form 10-K for further discussion of key accounting changes which occurred during the years covered in the above table. Additional information regarding business combinations and dispositions for the relevant periods above may be found in the notes accompanying our consolidated financial statements elsewhere in this Annual Report on Form 10-K.

Table of Contents

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes to those statements included elsewhere in this report. In addition to historical financial information, the following discussion and analysis contains 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 that involve risks, uncertainties and assumptions. These statements include, among other things, statements concerning:

- *our expectations regarding the relative growth of our product sales and licensing revenue;*
- *our expectation that future product and licensing revenue will reflect a broader and more diversified mix of products;*
- *our expectation that technology development revenue will continue to represent a significant portion of our total revenue for the foreseeable future;*
- *our expectations regarding investments in product development and commercialization, and our expectation that such investments will lead to increased product revenue;*
- *our expectation that we will continue to incur significant expenses associated with being a public company and will likely continue to incur increased operating expenses and substantial losses;*
- *our expectations that operating revenue will rise at a lesser rate of growth as we continue to invest in new product development and product sales;*
- *our expectation that our product revenue will increase in the near term due to our acquisition of Luna Technologies; and*
- *our expectation that we will not need to draw down our line of credit facility.*

Our actual results and timing of selected events may differ materially from those anticipated in these forward-looking statements as a result of many factors, including those discussed under Risk factors and elsewhere in this report, as well as those discussed in other documents we file with the Securities and Exchange Commission. We take no obligation to revise or otherwise disclose any revision to these forward-looking statements.

Overview

We research, develop and commercialize innovative technologies in two primary areas of focus: instrumentation and test & measurement products and healthcare products. We have a disciplined and integrated business model that is designed to accelerate the process of bringing new and innovative products to market. We identify technologies that can fulfill large and unmet market needs and then take these technologies from the applied research stage through commercialization.

To manage a diverse set of products effectively across a range of development stages, we are organized into two main groups: our Technology Development Division (which generates contract research revenue) and our Products Division (which generates product and licensing revenue). Although revenues from product sales and licensing currently represent less than half of our total revenues, we continue to invest in product development and commercialization, which we anticipate will lead to increased product sales and improved margins. In the future, while we anticipate continued growth in contract research revenue, we expect that revenues from product sales and licensing will represent a larger proportion of our total revenues. In addition, we anticipate that future product and licensing revenues will reflect a broader and more diversified mix of products.

42

Table of Contents

We have developed a disciplined and integrated process to accelerate the development and commercialization of innovative technologies. Our business model employs a market-driven approach and provides the infrastructure, resources and know-how throughout the process of developing and commercializing new products. Our Technology Development Division and our Products Division work together through all product development stages, including:

- Searching for emerging technologies based on market needs;
- Conducting applied research;
- Developing and commercializing innovative products; and
- Applying proven technologies and products to new market opportunities.

Our annual revenues were $22.6 million in 2004, $16.5 million in 2005, and $23.5 million in 2006. We generate revenues through technology development services provided under contractual arrangements, product sales and license fees. Historically, our technology development revenues have accounted for a large and growing proportion of our total revenues, and we expect that they will continue to represent a significant portion of our total revenues for the foreseeable future. Our technology development revenues grew from $13.8 million in 2004 to $15.4 million in 2005 and to $18.8 million in 2006. We regularly have a backlog of contracts for which work has been scheduled, but for which a specified portion of work has not yet been completed. We define backlog as the dollar amount of obligations payable to us under negotiated contracts upon completion of a specified portion of work that has not yet been completed, exclusive of revenues previously recognized for work already performed under these contracts, if any. The approximate value of our backlog was $18.4 million as of December 31, 2006, as compared to $16.5 million as of December 31, 2005.

Revenues from product sales currently represent a smaller proportion of our total revenues, and, historically, we have derived most of these revenues from the sales of our sensing systems and products that make use of light-transmitting optical fibers, or fiber optics. License revenues associated with our proprietary technologies have been significant in prior years. Although we have been successful in licensing certain technology, we do not currently earn significant license revenues. However, over time we do intend to gradually increase such revenues. In the near term, we expect revenues from product sales to increase because of our acquisition of Luna Technologies on September 30, 2005 and because of new medical products. We also expect to increase our investments in product development and commercialization, which we anticipate will lead to increased product sales growth. In the future, we expect that revenues from product sales will represent a larger proportion of our total revenues and that as we develop and commercialize new products, these revenues will reflect a broader and more diversified mix of products.

In July 1998, we established Luna Technologies, and funded its growth by raising venture capital, which ultimately diluted our equity ownership to as little as approximately 7% during our holding period and to approximately 10% as of September 2005. In line with our strategy of building a growing portfolio of businesses and products, we acquired all of the outstanding shares in Luna Technologies we did not already own in exchange for issuing shares of our common stock in September 2005. Luna Technologies continues to operate as our Luna Technologies Division.

In June 2005, Luna Technologies entered into a Joint Cooperation Agreement with Luna Energy. Under this agreement, both parties have agreed to cooperate to develop a fiber optic sensing system product and have agreed to contribute materials, intellectual property, personnel and other resources to the development effort. Upon successful completion of product development, Luna Energy will receive a license to certain of Luna Technologies intellectual property and will be required beginning in 2007 and continuing through December 31, 2017 to make payments to Luna Technologies with respect to revenues derived from products sold that utilize this intellectual property. As of December 31, 2006, Luna Energy had not yet sold products that would entitle Luna Technologies to royalty payments under this joint cooperation agreement, Luna Technologies had received aggregate development milestone payments of $305 thousand as of that date under this agreement and is entitled

Table of Contents

to receive additional development milestone payments of up to $120 thousand in the aggregate, subject to the satisfaction of certain conditions. Luna Technologies also has the right to receive royalty payments from sales of products in the future. The license of certain of the intellectual property from Luna Technologies to Luna Energy shall be an exclusive license if Luna Energy makes certain minimum royalty payments of $420 thousand in the aggregate between 2007 and 2017, and shall be a non-exclusive license if Luna Energy fails to make these minimum royalty payments. Since December 2004, we have not held an ownership interest in Luna Energy.

In connection with becoming a public company, we have and will continue to incur significant additional expenses such as audit fees, professional fees, increased directors and officers insurance, advisory board and board of directors compensation, and expenses related to hiring additional personnel and expanding our administrative functions. Many of these expenses were not incurred by us in prior periods. In addition, upon receiving the net proceeds from our initial public offering, we implemented a strategy for expansion that has significantly increased our operating expenses and will likely continue to result in substantial losses. We incurred consolidated net losses of approximately $2.0 million and $9.4 million for the years ended December 31, 2005 and December 31, 2006, respectively. We expect to continue to incur significant additional expenses as we expand our business, including increased expenses for research and development, sales and marketing, manufacturing, finance and accounting personnel and expenses associated with being a public company. We may also grow our business in part through acquisitions of additional companies and complementary technologies which could cause us to incur greater than anticipated transaction expenses, amortization or write-offs of intangible assets and other acquisition-related expenses. As a result, we expect that we may likely continue to incur losses for the foreseeable future, and these losses could be substantial.

Description of Our Revenues, Costs and Expenses

The following is a description of our revenues, costs and expenses. Additional information about our segments may be found in Note 16 in the notes accompanying our consolidated financial statements elsewhere in this Annual Report on Form 10-K.

Revenues

We generate revenues from technology development (contract research), product sales and license payments. We derive technology development revenues from providing research and development services to third parties, including government entities, academic institutions and corporations, and from achieving milestones established by some of these contracts and in collaboration agreements. In general, we complete contracted research over periods ranging from six months to three years, and recognize these revenues over the life of the contract as costs are incurred or upon the achievement of certain milestones built into the contracts. Our product revenues reflect amounts that we receive from sales of our products or development of products for third parties and currently represent approximately 20% of our total revenues. Our license revenues comprise up-front license fees paid to us in connection with licenses or sublicenses of certain patents and other intellectual property as well as royalties, which currently represent an insignificant portion of our license revenues.

Cost of Revenues

Cost of revenues associated with technology development revenues consists of costs associated with performing the related research activities, including direct labor, amounts paid to subcontractors and overhead allocated to technology development activities.

Cost of revenues associated with product sales and license revenues consists of license fees for use of certain technologies; product manufacturing costs including all direct material and direct labor costs; amounts paid to our contract manufacturers; manufacturing, shipping and handling; provisions for product warranty; and inventory obsolescence, as well as overhead allocated to these activities.

Table of Contents

Operating Expense

Operating expense consists of selling, general and administrative expenses, as well as expenses related to research and development, depreciation of fixed assets and amortization of intangible assets. These expenses also include: compensation for employees in executive and operational functions including certain non-cash charges related to expenses from option grants; facilities costs; professional fees; salaries, commissions, travel expense and related benefits of personnel engaged in sales, product management and marketing activities; costs of marketing programs and promotional materials; salaries, bonuses and related benefits of personnel engaged in our own research and development beyond the scope and activities of our Technology Development Group; product development activities not provided under contracts with third parties; and overhead costs related to these activities.

Interest Income/Expense

Interest expense historically related primarily to interest we paid under our senior secured revolving credit facility. As of December 31, 2006, there was no amount outstanding on our credit facility, and we do not expect to draw on that facility in the near term. Beginning the last week of 2005, interest expense includes interest accrued on the outstanding aggregate principal of the senior convertible promissory notes issued to Carilion Clinic on December 30, 2005.

Interest income includes amounts earned on our cash deposits with financial institutions. During 2006, the company invested the proceeds of the Carilion transactions and the net proceeds from its initial public offering in a money market account and draws from that account as needed to fund ongoing operations.

Critical Accounting Policies and Estimates

Product and Licensing Revenues

We recognize product revenues when all the following criteria are met: (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the fee is fixed or determinable, and (iv) collectibility is probable. We accrue for warranty costs, sales returns and other allowances on our best estimate of costs that will be incurred on the delivered product.

Technology Development Revenues

We recognize revenue when a contract has been executed, the contract price is fixed and determinable, delivery of services or products has occurred, and collectibility of the contract price is considered probable and can be reasonably estimated. Revenue is earned under cost reimbursable, time and materials and fixed price contracts. Direct contract costs are expensed as incurred.

Under cost reimbursable contracts, we are reimbursed for allowable costs, and paid a fixed fee. Revenues on cost reimbursable contracts are recognized as costs are incurred plus an estimate of applicable fees earned. We consider fixed fees under cost reimbursable contracts to be earned in proportion to the allowable costs incurred in performance of the contract.

Revenue on time and materials contracts are recognized based on direct labor hours expended at contract billing rates and adding other billable direct costs.

Fixed price contracts may include either a product delivery or specific service performance throughout a period. For fixed price contracts that are based on the proportionate performance method and involve a specified number of deliverables, we recognize revenue based on the proportion of the cost of the deliverables compared to the cost of the deliverables required by the contract. For fixed price contracts that provide for the development and delivery of a specific prototype or product, revenues are recognized under the percentage of completion

Table of Contents

method in accordance with Statement of Position (SOP) 81-1 *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*.

Our contracts with agencies of the government are subject to periodic funding by the respective contracting agency. Funding for a contract may be provided in full at inception of the contract or ratably throughout the contract as the services are provided. In evaluating the probability of funding for purposes of assessing collectibility of the contract price, we consider our previous experiences with our customers, communications with our customers regarding funding status, and our knowledge of available funding for the contract or program. If funding is not assessed as probable, revenue recognition is deferred until realization is deemed probable.

Contract revenue recognition inherently involves estimation, including the contemplated level of effort to accomplish the tasks under the contract, the cost of the effort, and an ongoing assessment of progress toward completing the contract. From time to time, as part of the normal management processes, facts may change, causing revisions to estimated total costs or revenues expected. The cumulative impact of any revisions to estimates and the full impact of anticipated losses on any type of contract are recognized in the period in which they become known.

The underlying bases for estimating our contract research revenues are measurable expenses such as labor, subcontractor costs and materials, the cost data of which is updated on a regular basis for purposes of preparing our cost estimates. Our research contracts generally have a period of performance of six to 18 months. Accordingly, our estimates of contract costs have historically been consistent with actual results. Revisions in these estimates between accounting periods to reflect changing facts and circumstances have not had a material impact on our operating results, and we do not expect future changes in these estimates to be material.

The allowability of certain costs under government contracts is subject to audit by the government. Certain indirect costs are charged to contracts using provisional or estimated indirect rates, which are subject to later revision based on government audits of those costs. Management is of the opinion that costs subsequently disallowed, if any, would not be significant.

Income Taxes

We estimate our tax liability through calculating our current tax liability, together with assessing temporary differences resulting from the different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which we record on our balance sheet. Management then assesses the likelihood that deferred tax assets will be recovered in future periods. In assessing the need for a valuation allowance against the net deferred tax asset, management considers factors such as future reversals of existing taxable temporary difference, taxable income in prior carryback years, whether carryback is permitted under the tax law, tax planning strategies, and future taxable income exclusive of reversing temporary differences and carryforwards. To the extent that we cannot conclude that it is more likely than not that the benefit of such assets will be realized, we establish a valuation allowance to reduce their net carrying value.

As we assess the sufficiency of future taxable income and other factors noted above in future periods, our estimate of the required valuation allowance may change, which could have a material impact on the accounting period(s) in which the change occurs.

Our annual tax rate is based on our income, statutory tax rates and tax planning opportunities available in the various jurisdictions in which we operate. Significant judgment is required in determining our annual tax expense and in evaluating our tax positions.

While it is often difficult to predict the final outcome or timing of the resolution of any particular tax matter, we establish reserves at the time we determine it is probable we will be liable to pay additional taxes related to certain matters. These liabilities are recorded in the line item Accrued Liabilities in our consolidated balance

Table of Contents

sheets. We adjust these reserves, including any impact on the related interest and penalties, in light of changing facts and circumstances, such as the progress of a tax audit. A number of years may elapse before a particular matter for which we have established a reserve is audited and finally resolved. The number of years with open tax audits varies depending on the tax jurisdiction. Settlement of any particular issue would usually require the use of cash. We recognize favorable resolutions of tax matters for which we have previously established reserves as a reduction to our income tax expense when the amounts involved become known. Due to the significant net operating loss carryforwards available to the company as of December 31, 2006, no reserves for income taxes have been recorded.

Due to differences between federal or state tax law, and GAAP, certain items are included in the tax return at different times than when these items are reflected in the consolidated financial statements. Therefore, the annual tax rate reflected in our consolidated financial statements is different than that reported in our tax return. Some of these differences are permanent, such as expenses that are not deductible in our tax return. Some differences, such as depreciation expense reverse over time and create deferred tax assets and liabilities. The tax rates used to determine deferred tax assets or liabilities are the enacted tax rates in effect for the year in which the differences are expected to reverse. Based on the evaluation of all available information, the Company recognizes future tax benefits, such as net operating loss carryforwards, to the extent that realizing these benefits is considered more likely than not.

We evaluate our ability to realize the tax benefits associated with deferred tax assets by analyzing our forecasted taxable income using both historical and projected operating results, the reversal of existing temporary differences, taxable income in prior carryback years (if permitted) and the availability of tax planning strategies. A valuation allowance is required to be established unless management determines that it is more likely than not that the Company will ultimately realize the tax benefit associated with a deferred tax asset.

In July 2006, the FASB issued FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes (Interpretation No. 48). Interpretation No. 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise s financial statements in accordance with FASB Statement No. 109, Accounting for Income Taxes. Interpretation No. 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Interpretation No. 48 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. For our Company, Interpretation No. 48 was effective beginning January 1, 2007, and the cumulative effect adjustment will be recorded in the first quarter of 2007. We believe that the adoption of Interpretation No. 48 will not have a material impact on our consolidated financial statements.

Stock-Based Compensation

Prior to January 1, 2006, we recorded compensation expense under the intrinsic value method, pursuant to APB 25 and related interpretations, whenever the exercise price of an option grant was less than the fair market value of our common stock on the grant date. We recorded compensation expense whenever we modified the terms of an option grant or directly or indirectly repriced outstanding options. Our board of directors is responsible for determining the fair value of our common stock for the purpose of establishing exercise prices for our option grants. Our board has relied upon Market Place Transaction History as well as the assistance from independent valuation specialists for purposes of estimating the fair value of our common stock.

In August 2003, our board of directors authorized an option exchange program whereby holders of options for Class A Common Stock were given the opportunity to exchange their options for options to purchase Class B Common Stock on a one-for-one basis. The new option grants were immediately vested on September 29, 2003, the date of exchange, had an exercise price of $0.35 and a life of 10 years from the date of grant. All of the outstanding options issued under this exchange program had exercise prices in excess of the fair value of our Class A Common Stock as of the date of the exchange. As such, the option exchange was accounted for as a

Table of Contents

repricing in accordance with FIN 44. We are required to apply variable plan accounting to the replacement grant and measure compensation based on the change in fair value of the common stock at each reporting period. A total of 22,335 shares subject to such options exchanged under this program remain outstanding as of December 31, 2006. We will continue to incur a non-cash charge or benefit each quarter based upon the increase or decrease in fair value of our common stock, until such options are exercised, forfeited or expire.

The fair value of common stock for options granted prior to our initial public offering was estimated by the Compensation Committee of our board of directors, applying a number of commonly accepted valuation methodologies. The board of directors also considered valuations performed by an independent third-party valuation specialist. Subsequent to our initial public offering, we consider the fair value of our common stock for options granted to be the closing price of our common stock on the NASDAQ Global market on the date such options are granted.

Effective January 1, 2006, we adopted Financial Accounting Standards No. 123R, *Share Based Payment* (SFAS No. 123R) using the modified prospective transition method. Under this transition method, our financial statements for periods prior to January 1, 2006 were not restated. However, new awards and awards modified, repurchased or cancelled after January 1, 2006 will result in compensation expense based on the fair value of the stock option as determined by an option pricing model. We amortize stock-based compensation for such awards on a straight-line method over the related service period of the awards taking into account the effects of the employees expected exercise and post-vesting employment termination behavior.

Reassessment of Fair Value

From time to time, our board of directors grants stock options to employees, directors and consultants. At the time we granted stock options, we believed that the per share exercise price of options to purchase our common stock approximated the fair value of that stock on the grant date. However, in connection with the preparation of the financial statements for our initial public offering and solely for the purposes of accounting for employee stock-based compensation, we considered whether the equity awards granted subsequent to December 31, 2005 had a compensatory element that should be reflected in our financial statements. We noted that the fair value of the shares subject to certain equity awards granted during the first quarter of 2006, as determined by our board of directors at the time of grant and principally based upon the valuation reports, were significantly less than the valuations that our underwriters were discussing with us in connection with our preparation for our initial public offering. We applied hindsight to reassess the fair value of our common stock for those awards and decided that the valuation provided by the underwriters was a better indication of fair value of our common stock and that such value should be used to measure compensation expense associated with those grants.

Based upon this reassessment of fair value of our common stock, we have recorded a stock-based compensation charge under the fair value method outlined in SFAS 123R using the revised fair value of our common stock as an input in such calculation. For the twelve months ended December 31, 2006, we recognized $1,144,207 of stock-based compensation expense related to the options associated with the reassessment of fair value. The aggregate amount of stock-based compensation expected to be recognized with respect to this reassessment of fair value during the years 2007 through 2009 will be as follows:

	2007	2008	2009
Amortization of stock-based compensation related to stock options granted	$ 1,518,820	$ 1,518,820	$ 1,518,820

Long- Lived Assets

We review all of our long-lived assets for impairment when changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If we determine that such indicators are present, we prepare

Table of Contents

an undiscounted future net cash flow projection for the asset. In preparing this projection, we make a number of assumptions, which include, without limitation, future sales volumes, price levels, and rates of increase in operating expenses. If our projection of undiscounted future cash flows is in excess of the carrying value of the recorded asset, no impairment is reported. If the carrying value of the asset exceeds the projected undiscounted net cash flows, an impairment is recorded. The amount of the impairment charge is determined by discounting the projected net cash flows.

Goodwill and Other Intangible Assets

We account for goodwill and other intangible assets in accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*. SFAS No. 142 requires goodwill and some intangible assets to no longer be amortized. In addition, goodwill is tested for impairment at the reporting unit level and intangible assets deemed to have an indefinite life and other intangibles are tested for impairment at least annually, or more frequently if impairment indicators arise. We test for impairment of goodwill by comparing the carrying amount to its estimated fair value. In preparing this evaluation, we make a number of assumptions, which include, without limitation, future sales volume levels, price levels and rates of increase in operating expenses. If our estimate of fair value is in excess of the carrying value of the recorded asset, no impairment is reported. If the carrying value of the asset exceeds the estimated fair value, an impairment charge is recorded to reduce the asset to its estimated fair value.

Results of Operations

The following table shows information derived from our consolidated statements of operations expressed as a percentage of revenues for the periods presented.

	2004	2005	2006
Revenues:			
Technology development revenues	91.3%	93.5%	79.8%
Product and license revenues	8.7%	6.5%	20.2%
Total revenues	100.0%	100.0%	100.0%
Cost of Revenues:			
Technology development costs	48.6%	76.3%	60.1%
Product and license costs	12.8%	2.5%	9.4%
Total cost of revenues	61.4%	78.8%	69.4%
Gross Profit	38.6%	21.2%	30.5%
Operating Expense	18.5%	36.5%	72.8%
Operating Income/(Loss)	20.1%	(15.3%)	(42.3%)
Total Other Income/(Expense), net	(1.5%)	(0.2%)	2.3%
Income/Loss Before Income Taxes	18.5%	(15.5%)	(40.0%)
Income Tax Expense/(Benefit)	0.6%	(3.4%)	0.1%
Net Income/(Loss)	18.0%	(12.1%)	(40.1%)

Year Ended December 31, 2006 Compared to Year Ended December 31, 2005

Revenues

Total revenues for the year ended December 31, 2006 were $23.5 million, representing an increase of $7.1 million, or 43%, over revenues of $16.5 million for the year ended December 31, 2005. The year over year increase was comprised of a $3.4 million, or 22%, increase in technology development revenue and a $3.7 million, or 343%, increase in product and license revenue.

Technology development revenue grew primarily due to hiring of additional personnel throughout 2006, resulting in increased billable activities performed under our research contracts. In response to our continued

Table of Contents

success in being awarded increasing aggregate values of research contracts, we increased the size of our technology development group by 48 full time people during 2006.

During 2006, product and license revenue grew primarily due to the acquisition of our Luna Technologies subsidiary and growth in other new product areas such as medical products. Product and license revenues of $4.8 million in 2006 included the full year of our Luna Technologies subsidiary, acquired in September 2005. Of the $4.8 million in product and license revenues, approximately $3.9 million related to the operations of Luna Technologies. Product and license revenues of $1.1 million for 2005 include only the revenues earned during the three months following the date of acquisition of Luna Technologies. Revenues for Luna Technologies for the nine months ended September 29, 2005 were $2.1 million. Product and license revenues for 2006 also included $0.2 million in sales of medical products and $0.6 million in contracted product development activities. There were no corresponding revenues for medical products and contracted product development activities in 2005.

Cost of Revenues

Cost of revenues increased 27% to $16.4 million for the year ended December 31, 2006, from $13.0 million for the year ended December 31, 2005. Cost of revenues for technology development increased $1.6 million, or 13%, to $14.1 million for the year ended December 31, 2006 from $12.6 million for the year ended December 31, 2005. This increase primarily resulted from the addition of personnel during 2006 to fulfill our awarded research contracts and other direct costs associated with these contracts.

Product and license cost of revenues increased $1.8 million, or 431%, consistent with the product and license revenue growth of 343% and primarily attributable to the full year impact in 2006 of the acquisition of Luna Technologies during 2005 and the additional costs associated with sales of medical products and contracted product development activities.

Operating Expense

Operating expense increased to $17.2 million for the year ended December 31, 2006 from $6.0 million for the year ended December 31, 2005. The increase in operating expense was primarily attributable to increased spending in research and development activities, principally related to research concerning carbon nanomaterials and their potential application in diagnostic imaging, development of our medical products, additional selling, general and administrative costs associated with our acquisition of Luna Technologies in September 2005, increased recognition of expense for share-based compensation, and increases in personnel, professional fees and other costs associated with our transition to a public company. These increased costs were incurred in support of the company s strategy to achieve long term growth through the commercialization of innovative products utilizing the company s proprietary and licensed technologies. We expect our operating expenses to continue to increase, at a lesser rate of growth, as we continue to invest in new product development and increase product sales.

Other Income/(Expense)

Other income was $0.5 million for the year ended December 31, 2006 compared to a net expense of less than $0.1 million for the year ended December 31, 2005. The improvement of $0.6 million year over year is attributable to interest earned on cash deposits. The company received aggregate proceeds of $15 million from debt and equity financing transactions during the period August 2005 through December 2005 and net proceeds of approximately $17.9 million from its initial public offering in June 2006.

Year Ended December 31, 2005 Compared to Year Ended December 31, 2004

Revenues

Total revenues decreased 27.2% to $16.5 million for the year ended December 31, 2005 from $22.6 million for the year ended December 31, 2004. The decrease was a result of the absence of license revenues relating to

Table of Contents

our arrangement with Baker Hughes. The satisfaction of our right to receive certain milestone payouts in connection with that arrangement and the sale of our interest in Luna Energy to Baker Hughes in December 2004 represents the completion of our licensing arrangement with Baker Hughes. The decrease in license revenues was offset in part by an increase in contract revenues during the year ended December 31, 2005 as compared with the same period in 2004. During 2005, consistent with our business plan, we did not receive significant license payments for our technologies, and we do not expect license revenues comparable to those in 2002, 2003 and 2004 in the near term. We do, however, expect that product revenues will continue to increase in the near term as a result of our acquisition of Luna Technologies on September 30, 2005. The acquisition of Luna Technologies was consistent with our strategy to transition our revenues mix from contract research revenues to product sales and license revenues. We generated approximately $1.1 million in product sales in 2005, virtually all of which were derived from operations of Luna Technologies subsequent to our acquisition.

Although total revenues decreased due to the cessation of revenues from the Luna Energy joint venture in December 2004, contract research revenues increased 11.2% to $15.4 million for the year ended December 31, 2005 from $13.8 million for the same period in 2004. This increase reflects our continued short-term commitment to steady and consistent growth of our contract research business while, at the same time, we seek to increase our product sales both in absolute terms and as a proportion of total revenues.

Cost of Revenues

Cost of revenues decreased 6.5% to $13.0 million for the year ended December 31, 2005 from $13.9 million for the year ended December 31, 2004. Consistent with our decrease in revenues, the decline was primarily driven by the lack of licensing revenues as our licensing arrangement with Baker Hughes was completed at the end of 2004.

Contract research cost of revenues increased 14.3% to $12.6 million for the year ended December 31, 2005 from $11.0 million in the same period in 2004. This increase was consistent with a corresponding increase in contract research revenues.

Cost of product sales and license cost decreased 85.8% to $0.4 million for the year ended December 31, 2005 from $2.9 million in the same period in 2004. This decrease was due to the cessation of license cost activity in 2005 with the completion of the Luna Energy joint venture in December 2004. Nearly all of the costs in this area incurred in 2005 were cost of product sales, which were driven by our increased product sales through our Luna Technologies Division beginning in the fourth quarter of 2005.

Operating Expense

Operating expense increased 43.3% to $6.0 million for the year ended December 31, 2005 from $4.2 million for the year ended December 31, 2004. The increase in operating expense was primarily attributable to our acquisition of Luna Technologies and the related indirect transaction and integration costs. Additionally, we incurred significant expenses in connection with our initial public offering that were not direct costs and were not otherwise able to be capitalized. These include hiring increased staff, professional fees and various other internal changes designed to supplement and enhance our existing infrastructure and human resources. The activity in 2005 is in line with our strategy of building a growing portfolio of businesses and products.

Other Income (Expense)

The decrease in other expense was primarily a result of a decrease in losses from equity method investees. We disposed of our investment in Luna Energy in December 2004 and acquired Luna Technologies in September 2005. For 2004, our pro rata portion of the losses of Luna Technologies was reflected in other income (expense) because Luna Technologies was accounted for as an equity-method investment. Our share of losses in Luna Technologies from January 1, 2005 to September 30, 2005, the acquisition date, was nominal.

Table of Contents

Luna Technologies operating results from the acquisition date through the end of the period have been included in our consolidated operating results.

Interest expense decreased from 2004 as a result of paying down the line of credit in 2005. Our line of credit permits us to borrow up to $2.5 million

Recently Issued Accounting Pronouncements

See footnote 1 to our consolidated financial statements for a discussion of recently issued accounting pronouncements.

Quarterly Results

The following table sets forth our unaudited historical revenues, operating income and net income (loss) by quarter during 2005 and 2006:

	Fiscal Year 2005				Fiscal Year 2006			
(Dollars in thousands, except per share data)	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Revenues:								
Technology development	$ 3,256	$ 3,913	$ 3,942	$ 4,269	$ 3,921	$ 4,170	$ 4,886	$ 5,811
Product and license				1,074	595	7 62	1,164	2,237
Total	$ 3,256	$ 3,913	$ 3,942	$ 5,343	$ 4,516	$ 4,932	$ 6,050	$ 8,048
Operating income (loss)	$ (297)	$ 82	$ (166)	$ (2,095)	$ (2,100)	$ (2,833)	$ (2,169)	$ (2,865)
Net income (loss)	$ (263)	$ 44	$ (51)	$ (1,724)	$ (2,089)	$ (2,721)	$ (1,949)	$ (2,679)
Fully diluted earnings (loss) per share	$ (0.09)	$ 0.01	$ (0.01)	$ (0.33)	$ (0.34)	$ (0.37)	$ (0.20)	$ (0.27)

Liquidity and Capital Resources

Prior to August 2005, our primary source of liquidity had been cash provided by operations and divestitures of certain assets and businesses. In August 2005, we completed our first institutional equity financing by raising $7.0 million through an equity investment by Carilion Clinic. Carilion Clinic invested an additional $8.0 million in December 2005 in the form of $5.0 million aggregate principal amount of senior convertible promissory notes and $3.0 million in additional equity.

On June 2, 2006, the effective date of our initial public offering, we sold 3,500,000 shares of common stock at $6.00 per share, resulting in gross proceeds of $21.0 million. In connection with this offering, we paid $1.5 million in underwriting discounts and commissions and incurred other offering expenses of approximately $1.6 million. The net proceeds from the offering were approximately $17.9 million.

At December 31, 2006, we had $17.9 million in cash and cash equivalents. Cash equivalents are comprised of highly liquid investments with maturities of three months or less. See Note 1 to our consolidated financial statements included as part of this report. Our principal uses of cash have been to fund our expansion, including facilities, personnel, working capital and other capital expenditures. We believe that our current cash on hand and the cash available under our line of credit agreement will be sufficient to fund operations for the next 12 months.

We have a $2.5 million senior secured revolving credit facility with First National Bank that is collateralized by a security interest in substantially all of our assets. The interest rate on borrowings under our secured revolving credit facility is equal to the prime rate, limited to no less than 6.0% and no greater than 10.0% per annum, and the interest accrued is payable monthly. Under the terms of the senior secured revolving credit facility, the outstanding principal is payable in full on demand or at maturity on June 30, 2007. The senior secured revolving credit facility contains covenants which require us to maintain $1.0 to $2.0 million in liquidity

Table of Contents

depending on our outstanding balance. Additionally, without First National Bank s prior approval, we may not make a direct loan to an affiliate or subsidiary of ours exceeding $0.5 million annually, guaranty the debt of our affiliate or subsidiary or incur debt with a party other than First National Bank in excess of $0.2 million annually. Finally, we are obligated to continue to provide First National Bank an assignment of life insurance in a minimum amount of $1.0 million on the life of Kent A. Murphy, covering all of our indebtedness to First National Bank. During 2006, we did not draw any amounts under our secured revolving credit facility, and we do not anticipate a need to draw on that line of credit in the near term given the funds raised from our August and December 2005 financing rounds with Carilion Clinic as well as the proceeds from our initial public offering. With the exception of our obligations under our senior convertible promissory notes, our capital lease, and a note in the amount of approximately $215,000 which was repaid to the Virginia Tech Foundation during January 2007, we have no other debt outstanding.

Discussion of Cash Flows

Recent Activity

During the year ended December 31, 2006, we used approximately $9.1 million of net cash from operations. This was a substantial change over the activity in 2005. Most of this change was due to the increased net loss year over year, reflecting the general increase in cash outflows that resulted from our expenditures increase to invest in new products, achieve a greater relative amount of product sales and our transition to a public company. Cash used in operations also increased due to an increase of $2.1 million in our accounts receivable.

Cash used in investing activities for the year ended December 31, 2006 related primarily to the purchase of property and equipment and legal fees associated with securing patent rights to certain technology. In December 2006, we acquired inventory, fixed assets and intellectual property rights related to a swept tunable laser for which we paid cash of $0.8 million at the acquisition date and have an additional $0.5 million payable in two installments over the next two years. Our overall cash used in investing activities was $3.4 million in 2006 compared to $1.4 million in 2005. The increase in capital spending was primarily attributable to leasehold improvements associated with our facilities expansions and the assets acquired with respect to the tunable laser product line. We currently expect on-going capital expenditures to be approximately $2 million in future years.

Cash flows from financing activities for the year ended December 31, 2006 increased significantly compared to 2005 due to the net proceeds of $17.9 million from our initial public offering. As a result of our increased cash position through the initial public offering and our Carilion financing transactions, we did not need to draw additional financing from our line of credit or other sources during 2006.

Capital Expenditures

Capital expenditures for property and equipment, including both purchased assets and assets acquired under capital leases, as well as capitalized software, totaled $2.8 million for 2006, an increase of $1.9 million from capital expenditures of $0.9 million in 2005. The increase from 2005 to 2006 was principally due to leasehold improvements for our new facilities and assets purchased in connection with our acquisition of a tunable laser product line. We have estimated approximately $2 million for capital expenditures in 2007, which relates to normal growth in capacity requirements and routine replacement and upgrades of equipment.

Summary of Contractual Obligations

We lease our facilities in Blacksburg, Charlottesville, Danville, Hampton, McLean and Roanoke, Virginia under operating leases that expire between May 2008 and January 2014 or under a month-to-month arrangement. Upon expiration of the leases, we may exercise certain renewal options as specified in the leases.

We also lease certain computer equipment and software under a capital lease agreement that expires in February 2008. The assets subject to these obligations are included in property and equipment on our consolidated balance sheet.

Table of Contents

In March 2006, our Luna Technologies Division executed a non-cancelable, non-reschedulable $1.2 million purchase order for multiple shipments of tunable lasers to be delivered over an 18-month period beginning in July 2006. As of December 31, 2006 approximately $738,000 remained under this commitment.

Set forth below is information concerning our known contractual obligations as of December 31, 2006 that are fixed and determinable.

	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Long-term debt obligations*	$ 5,214,955	$ 214,955	$	$ 5,000,000	$
Capital equipment and software lease	113,251	85,378	27,873		
Interest on debt and capital leases	1,203,884	3,200	684	1,200,000	
Operating facility leases	6,798,133	1,294,998	3,726,776	1,776,359	
Purchase order obligation	738,000	738,000			
Deferred Credits:					
City of Danville grant**	900,000	900,000			
Other liabilities***	5,546,000	400,500	1,193,500	649,000	3,303,000
Total	$ 20,514,223	$ 3,637,031	$ 4,948,833	$ 8,625,359	$ 3,303,000

* Long-term debt obligations consist of senior convertible promissory notes of aggregate principal amount of $5 million held by Carilion Clinic and a secured promissory note of aggregate principal amount of $214,955 held by the Virginia Tech Foundation.

** In March 2004, we received a $0.9 million grant from the City of Danville, Virginia to be used for the expansion of economic and commercial growth within the City. Specifically, $0.45 million of the grant will be used to offset certain capital expenditures for leasehold improvements being made at our Danville facility, and the remaining $0.45 million is to be used for our creation of new jobs.
The grant stipulates that we must make estimated capital expenditures of at least $6,409,000 and create 54 new full time jobs at our Danville facility, at an average wage of at least $39 thousand plus benefits within 30 months of the award, and then maintain such employment levels for an additional 30 months. We could be required to repay the grant funds on a pro-rata basis should we fail to satisfy the conditions stipulated in the agreement. As of September 25, 2006, we had not fully met the capital expenditures and job milestones under this agreement, and, as a result, we have included the $0.9 million in deferred credits in the accompanying consolidated balance sheets as of December 31, 2005 and 2006.

*** Other liabilities include remaining amounts payable for the acquisition of our tunable laser product line and minimum royalty payments for licensed technologies.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

We do not use derivative financial instruments as a hedge against interest rate fluctuations, and, as a result, interest income earned on our cash and cash equivalents and short-term investments is subject to changes in interest rates. However, we believe that the impact of these fluctuations does not have a material effect on our financial position due to the immediate available liquidity or short-term nature of these financial instruments. The interest rate on our line of credit is variable between 6.0% and 10.0% based on the current prime rate of interest; however we do not currently have any outstanding balances owed under our line of credit agreement. As of December 31, 2006, we had $17.9 million deposited in cash and cash equivalents bearing a weighted-average interest rate of 5.1%.

Foreign Currency Exchange Rate Risk

As of December 31, 2006, all payments made under our research contracts have been denominated in United States dollars. Our product sales to foreign customers are also denominated in U.S. dollars, and we do not receive payments in foreign currency. As such, we are not directly exposed to currency gains or losses resulting from fluctuations in foreign exchange rates. Sales to foreign customers were not significant for the years ended December 31, 2004, 2005, and 2006.

54

Table of Contents

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Consolidated Financial Statements

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders

Luna Innovations Incorporated

We have audited the accompanying balance sheets of Luna Innovations Incorporated, a Delaware corporation (the Company), as of December 31, 2006 and 2005, and the related statements of income, stockholders equity, and cash flows for each of the three years in the period ended December 31, 2006. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these 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 audits 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 audits 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 financial position of Luna Innovations Incorporated as of December 31, 2006 and 2005, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2006 in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 1 to the consolidated financial statements, the Company adopted the provisions of Statement of Financial Accounting Standards No. 123R, *Share-Based Payment*, effective January 1, 2006.

/s/ Grant Thornton LLP

McLean, VA

March 30, 2007

Table of Contents

CONSOLIDATED BALANCE SHEETS

	December 31, 2005	December 31, 2006
Assets		
Current assets:		
Cash and cash equivalents	$ 12,514,839	$ 17,866,753
Accounts receivable, net	5,129,911	7,233,406
Refundable income taxes	514,797	396,062
Inventory, net	448,475	843,294
Other current assets	227,409	503,703
Total current assets	18,835,431	26,843,218
Property and equipment, net	2,972,287	5,730,094
Intangible assets, net	999,544	2,031,489
Deferred offering costs	710,018	
Deferred tax asset	600,000	600,000
Other assets	16,550	12,413
Total assets	**$ 24,133,830**	**$ 35,217,214**
Liabilities and stockholders equity		
Current liabilities:		
Line of credit	$	$
Current portion of capital lease obligation	98,820	85,378
Current portion of long term debt obligation		214,955
Accounts payable	3,647,505	2,757,381
Accrued liabilities	1,788,162	3,627,277
Deferred credits	1,458,393	874,676
Total current liabilities	6,992,880	7,559,667
Long-term capital lease obligation	117,134	27,873
Long-term debt obligation	5,214,955	5,000,000
Deferred credits	450,000	554,418
Total liabilities	12,774,969	13,141,958
Commitments and contingencies:		
Redeemable Class B common stock, 308,216 and 0 shares issued and outstanding (Note 9)	504,984	
Stockholders equity:		
Preferred stock, par value $0.001, 5,000,000 shares authorized, no shares issued and outstanding		
Common stock; 54,245,588 shares authorized for the following classes:		
Class A voting Common Stock, par value $0.001; 2,834,814 and 0 shares issued and outstanding (Note 9)	2,835	
Class B non-voting Common Stock, par value $0.001; 734,427 and 0 shares issued and outstanding (Note 9)	734	
Class C voting Common Stock, par value $0.001; 2,131,474 and 0 shares issued and outstanding (Note 9)	2,131	
Common stock, par value $0.001, 100,000,000 and 23,257,094 shares authorized at December 31, 2006 and December 31, 2005, respectively. 0 and 9,911,546 shares issued and outstanding		9,912
Additional paid-in capital	10,935,049	31,585,762
Accumulated deficit	(86,872)	(9,520,418)
Total stockholders equity	10,853,877	22,075,256
Total liabilities and stockholders equity	**$ 24,133,830**	**$ 35,217,214**

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

Table of Contents

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2004	2005	2006
Revenues:			
Technology development revenues	$ 13,834,751	$ 15,379,667	$ 18,787,863
Product and license revenues	8,752,155	1,074,221	4,757,779
Total revenues	22,586,906	16,453,888	23,545,642
Cost of revenues:			
Contract research costs	10,985,164	12,552,122	14,140,605
Product and license costs	2,880,606	409,772	2,221,396
Total cost of revenues	13,865,770	12,961,894	16,362,001
Gross profit	8,721,136	3,491,994	7,183,641
Operating expense	4,189,629	6,003,644	17,150,195
Operating income (loss)	4,531,507	(2,511,650)	(9,966,554)
Other income (expense):			
Other income (expense)	117	1,592	25,834
Interest income (expense), net	(90,304)	(41,251)	515,818
Loss from equity method investees	(256,904)		
Total other income (expense)	(347,091)	(39,659)	541,652
Income (loss) before income taxes	4,184,416	(2,551,309)	(9,424,902)
Income tax expense (benefit)	128,234	(557,252)	12,829
Net income (loss)	$ 4,056,182	$ (1,994,057)	$ (9,437,731)
Net income (loss) per share:			
Basic	$ 1.40	$ (0.53)	$ (1.14)
Diluted	$ 1.14	$ (0.53)	$ (1.14)
Weighted average shares:			
Basic (Note 9)	2,903,022	3,735,811	8,283,074
Diluted (Note 9)	3,561,788	3,735,811	8,283,074

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

Table of Contents

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS EQUITY (DEFICIT)

	Class A Common Stock		Class B Common Stock		Class C Common Stock		Common Stock		Additional Paid-in	Retained Earnings	
	Shares	$	Shares	$	Shares	$	Shares	$	Capital	(Deficit)	Total
Balance December 31, 2003	2,834,814	2,835	67,121	67					214,186	(2,148,997)	(1,931,909)
Exercise of stock options			9,326	9					3,291		3,300
Employee stock-based compensation									39,680		39,680
Net income										4,056,182	4,056,182
Balance December 31, 2004	2,834,814	2,835	76,447	76					257,157	1,907,185	2,167,253
Exercise of stock options			238,173	238					84,037		84,275
Exercise of warrants			103,508	104					79		183
Issuance of common stock in Carilion financing transaction, net					2,131,474	2,131			9,910,337		9,912,468
Issuance of common stock in conjunction with Luna Technologies acquisition			316,301	316					514,513		514,829
Share based payment expense									168,926		168,926
Net loss										(1,994,057)	(1,994,057)
Balance December 31, 2005	2,834,814	2,835	734,429	734	2,131,474	2,131			10,935,049	(86,872)	10,853,877
Exercise of stock options			139,049	139			132,606	133	96,931		97,203
Issuance of warrants and options in connection with Luna Technologies acquisition									418,073		418,073
Conversion of Class A, Class B and Class C Common Stock to Common Stock	(2,834,814)	(2,835)	(873,478)	(873)	(2,131,474)	(2,131)	5,839,766	5,839			
Conversion of Redeemable Class B Common Stock to Common Stock							308,216	308	504,676		504,984
Initial Public Offering, net of costs							3,500,000	3,500	17,862,741		17,866,241
Carilion anti-dilution shares							96,724	97	(97)		
Rounding of fractional shares and par value effect of stock split							29	1	(4,184)	4,185	2
Share based payments							34,205	34	1,772,573		1,772,607
Net loss										(9,437,731)	(9,437,731)
Balance December 31, 2006							9,911,546	9,912	31,585,762	(9,520,418)	22,075,256

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

Table of Contents

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2004	2005	2006
Cash flows from (used in) operating activities:			
Net income (loss)	$ 4,056,182	$ (1,994,057)	$ (9,437,731)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	381,052	540,145	1,141,115
Deferred income taxes	957,898	(157,251)	
Loss on investments in and advances to affiliates	256,904		
Share based compensation	39,680	168,926	1,772,607
Change in assets and liabilities:			
Accounts receivable	(1,232,336)	(1,314,485)	(2,103,495)
Refundable income taxes	(603,929)	362,005	118,735
Other assets	21,181	(26,194)	(654,563)
Accounts payable and accrued expenses	928,611	1,911,095	527,098
Deferred credits	(3,323,086)	422,227	(479,299)
Net cash from (used in) operating activities	1,482,157	(87,589)	(9,115,533)
Cash flows from (used) in investing activities:			
Acquisition of property and equipment	(1,376,402)	(877,144)	(2,834,385)
Intellectual property costs	(192,101)	(430,847)	(558,909)
Net cash from acquisition of Luna Technologies		33,676	
Investments in and advances to affiliates	(378,000)		
Capitalized software development costs		(122,642)	
Net cash used in investing activities	(1,946,503)	(1,396,957)	(3,393,294)
Cash flows from (used in) financing activities:			
Net (payments) borrowings on line of credit	500,000	(1,500,000)	
Payments on capital lease obligation	(71,495)	(107,177)	(102,703)
Proceeds from convertible debt		5,000,000	
Proceeds from the issuance of common stock, net		9,912,468	17,866,241
Proceeds from the exercise of options and warrants	3,300	84,458	97,203
Net cash from financing activities	431,805	13,389,749	17,860,741
Net change in cash	(32,541)	11,905,203	5,351,914
Cash beginning of period	642,177	609,636	12,514,839
Cash end of period	$ 609,636	$ 12,514,839	$ 17,866,753
Supplemental disclosure of cash flow information			
Cash paid for interest	$ 95,967	$ 108,211	$ 45,341
Cash paid for income taxes	30,000		$ 12,829
Property and equipment financed by capital leases	$ 319,768	$ 11,700	

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

Table of Contents

Notes to Consolidated Financial Statements

1. Organization and Summary of Significant Accounting Policies

Luna Innovations Incorporated (Luna Innovations) was incorporated in the Commonwealth of Virginia in 1990 and subsequently reincorporated in the State of Delaware in April 2003. We are engaged in the research, development and commercialization of innovative technologies in the areas of molecular technology solutions and sensing solutions. We are organized into two main groups, which work closely together to turn ideas into products: our Technology Development Group and our Products Group. We have a disciplined and integrated business model that is designed to accelerate the process of bringing new and innovative technologies to market. We identify technology that can fulfill identified market needs. We then take these solutions from the applied research stage through commercialization.

Basis of Presentation and Consolidation

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America (US GAAP) and include our accounts, our wholly owned subsidiaries and other entities in which we have a controlling financial interest. We consolidate all entities in which we own more than 50% of the outstanding voting stock unless we do not control the entity. In accordance with Financial Accounting Standards Board Interpretation No. 46 revised, *Consolidation of Variable Interest Entities*, (FIN 46R), we also consolidate any variable interest entities for which we are deemed to be the primary beneficiary.

We use the equity method to account for our investments for which we have the ability to exercise significant influence over operating and financial policies. Consolidated net income or loss includes our share of the net earnings or losses of the investees. Our share of losses in the investees is limited to our investment and advances unless we have guaranteed certain obligations of the investee or are otherwise committed to provide financial support to such investee.

In those cases where the our investment is less than 20% and significant influence does not exist, such investments are carried at cost

We eliminate from our financial results all significant intercompany transactions.

Use of Estimates

The preparation of our consolidated financial statements in accordance with US GAAP requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our consolidated financial statements and accompanying notes. Although these estimates are based on our knowledge of current events and actions we may undertake in the future, actual results may differ from such estimates and assumptions.

Technology Development Revenues

We perform research and development for U.S. Federal government agencies, educational institutions and commercial organizations. We recognize revenues under research contracts when a contract has been executed, the contract price is fixed and determinable, delivery of services or products has occurred and collection of the contract price is considered probable. Such revenues are earned under cost reimbursable, time and materials and fixed price contracts. Direct contract costs are expensed as incurred.

Under cost reimbursable contracts, we are reimbursed for allowable costs and paid a fixed fee. Revenues on cost reimbursable contracts are recognized as costs are incurred plus a portion of the fee earned. Revenues on

Table of Contents

time and materials contracts are recognized based on direct labor hours expended at contract billing rates plus other billable direct costs.

Revenue for fixed price research contracts that involve the delivery of services and a prototype model are recognized under the percentage of completion method in accordance with Statement of Position (SOP) 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*. Fixed price arrangements that involve the delivery of research reports are recognized under the proportional performance method based upon the ratio of costs incurred to total estimated cost as this method more accurately measures performance under these arrangements. Losses on contracts, if any, are recognized in the period in which they become known.

For the years ended December 31, 2004, 2005 and 2006, contract research revenues from agencies of the U.S. government accounted for approximately 51%, 70% and 87% respectively, of total revenues for the same period. See Note 15 for additional details concerning our relationship with major customers.

Intellectual Property License Revenues

Amounts received from third parties for licenses to our intellectual property are recognized when earned under the terms of the agreements. Revenues are recognized upon transfer of the license unless we have continuing obligations for which fair value cannot be established, in which case the revenues are recognized over the period of the obligation. If there are extended payment terms, license fee revenues are recognized as these payments become due and collection is probable. We consider all arrangements with payment terms extending beyond 12 months not to be fixed and determinable.

Certain of our license arrangements have also required us to enter into research and development agreements. We apply the guidance from the Emerging Issues Taskforce Consensus on Issue 00-21, *Revenue Arrangements with Multiple Deliverables* (EITF 00-21). Accordingly, we allocate our arrangement fees to the various elements based upon objective reliable evidence of fair value, if available. For those arrangements in which evidence of fair value is not available, we defer revenues from any up-front payments and recognize them over the service period in the arrangement. Certain of these arrangements also include the payment of performance bonuses based upon the achievement of specific milestones. Generally, there are no assurances at the onset of these arrangements that the milestones will be achieved. As such, fees related to such milestones are excluded from the initial allocation of the arrangement fee in accordance with EITF 00-21 and are recognized upon achievement of the milestone provided that such fees are non-refundable and collection is probable.

Revenues derived from our arrangement with Baker Hughes Oilfield Operations, Inc. (BHI) accounted for 35% total revenues for the years ended December 31, 2004. As discussed in Note 5 our arrangement with BHI ended in 2004.

Product Sales Revenues

Revenues from product sales are generated by the sale of commercial products and services under various sales programs to the end user and through distribution channels. We sell fiber optic sensing systems to end users for use in numerous fiber-optic based measurement applications.

Revenues from product sales that require no ongoing obligations are recognized as revenues when shipped to the customer, title has passed and collection is reasonably assured. In transactions where a right-of-return exists, revenues are deferred until acceptance has occurred and the period for the right-of-return has lapsed. As of December 31, 2004, 2005 and 2006, we have not entered into sales transactions where rights of return exist.

Table of Contents

Allowance for Uncollectible Receivables

We review the status of our uncollected receivables on a regular basis. In determining the need for an allowance for uncollectible receivables, we consider our customers financial stability, past payment history and other factors that bear on the ultimate collection of such amounts.

Cash Equivalents

We consider all highly liquid investments purchased with maturities of three months or less to be cash equivalents.

Fair Value of Financial Instruments

Our financial instruments include cash and cash equivalents, accounts receivables, accounts payable, a line-of-credit and accrued liabilities. The carrying amounts of financial instruments approximate fair value due to their short maturities. Additionally, the line-of-credit is subject to a variable interest rate based upon the prime rate as published by the Wall Street Journal.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. We record depreciation using the straight-line method over the following estimated useful lives:

Equipment	3 7 years
Furniture and fixtures	7 years
Software	3 years
Leasehold improvements	Lesser of lease term or life of improvements

Goodwill and Intangible Assets

Intangible assets consist of goodwill and patents related to certain intellectual property that we have developed or acquired. Goodwill represents the excess of the cost of an acquired entity over the net amounts assigned to tangible and intangible assets acquired and liabilities assumed. Intangible assets are carried at cost and are amortized over a period of five years. The Company applies the provisions of Statement of Financial Accounting Standards No. 142 *Goodwill and Other Intangible Assets*, which requires allocating goodwill to each reporting unit and testing for impairment using a two-step approach. The Company will perform a goodwill impairment test annually or whenever an event has occurred that would more likely than not reduce the fair value of a reporting unit below its carrying amounts. The Company completed its required goodwill impairment test during the fourth quarter of 2006 and determined that no impairment existed as of December 31, 2006.

Research and Development

Research and development costs not related to contract performance are expensed as incurred. For the years ended December 31, 2004 and 2005, non-contract related research and development costs were not significant. The Company expensed $2.3 million of non-contract related research and development for the year ended December 31, 2006.

Capitalized Software Costs

The Company capitalized costs of $122,642 for the year ended December 31, 2005 and $0 for the year ended December 31, 2006 related to new software products. Costs related to the development of new software

Table of Contents

products and significant enhancements to existing software products are expensed as incurred until technological feasibility has been established and are amortized over three years.

Valuation of Long-Lived Assets

We account for long-lived assets in accordance with the provisions of Statement of Financial Accounting Standards (SFAS) No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. SFAS No. 144 requires that long-lived assets and certain identifiable intangibles be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets is measured by comparing the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds their fair value. Assets to be disposed of by sale are reflected at the lower of their carrying amount or fair value less cost to sell.

Inventory

Inventory consists of finished goods and parts valued at the lower of cost (determined on the first-in, first-out basis) or market. We provide reserves for estimated obsolescence or unmarketable inventory equal to the difference between the cost of the inventory and the estimated market value based upon assumptions about future demand and market conditions.

Net Income (Loss) Per Share

We compute net income (loss) per share in accordance with SFAS No. 128, *Earnings Per Share*. Basic per share data is computed by dividing income (loss) available to common stockholders by the weighted average number of shares outstanding during the period. Diluted per share data is computed by dividing income (loss) available to common stockholders by the weighted average shares outstanding during the period increased to include, if dilutive, the number of additional common share equivalents that would have been outstanding if potential common shares had been issued using the treasury stock method. Diluted per share data would also include the potential common share equivalents relating to convertible securities by application of the if-converted method.

As discussed in Note 9, in connection with our initial public offering the Company effected a 1.7691911:1 reverse stock split. All share and per share data in this report has been restated to give effect to this reverse split.

The effect of 2,508,548 and 3,727,496 common stock equivalents are ignored for the year ended December 31, 2005 and 2006, respectively, as they are antidilutive to earnings per share. In addition, the conversion of the $5.0 million in senior convertible promissory notes would have been antidilutive.

Stock-Based Compensation

We have a stock-based compensation plan, which is described further in Note 9. Effective January 1, 2006, we adopted Financial Accounting Standards No. 123R, *Share Based Payment* (SFAS No. 123R) using the modified prospective transition method. Under this transition method, our financial statements for periods prior to January 1, 2006 have not been restated. However, new awards and awards modified, repurchased or cancelled after January 1, 2006 trigger compensation expense based on the fair value of the award as determined by the Black-Scholes option pricing model. We amortize stock-based compensation for such awards on a straight-line method over the related service period of the awards taking into account the effects of the employees expected exercise and post-vesting employment termination behavior.

The adoption of SFAS No. 123(R) increased the net loss by approximately $1 million for the year ended December 31, 2006, as compared to what our net loss would have been if we had continued to account for share-based compensation under APB No. 25, Accounting For Stock Issued to Employees.

Table of Contents

For the periods prior to 2006, we accounted for stock-based employee compensation arrangements using the intrinsic value method in accordance with the provisions of Accounting Principles Board Opinion (APB) No. 25, *Accounting for Stock Issued to Employees* and related amendments and interpretations. We complied with the disclosure provisions of Statement of Financial Accounting Standards (SFAS) No. 123, *Accounting for Stock-based Compensation,* as amended by SFAS No. 148, *Accounting for Stock Based Compensation Transition and Disclosure*, which requires fair value recognition for employee stock-based compensation. We account for equity instruments issued to non-employees in accordance with the provisions of SFAS 123 and Emerging Issues Task Force (EITF) Issue No. 96-18.

Generally, we award options to employees and directors with exercise prices equal to or greater than the estimated fair value of our common stock on the date of grant. As more fully described in Note 9, we entered into an option exchange with our employees in September 2003 that resulted in the new option grant being considered a re-pricing in accordance with FASB Interpretation No. 44, *Accounting for Certain Transactions Involving Stock Compensation* (FIN 44). We apply variable plan accounting to outstanding options related to this award and measure compensation expense at each reporting period equal to an amount that reflects the change in the fair value of the underlying security.

Had compensation expense been measured under the fair value method prescribed by SFAS No. 123, our pro forma net income (loss), and pro forma net income (loss) per share would have been as follows:

	Year Ended December 31,	
	2004	2005
Net income (loss):		
As reported	$ 4,056,182	$ (1,994,057)
Add stock based employee compensation expense in reported net income (loss), net of related tax effects	39,680	133,901
Deduct total stock based employee compensation (expense) benefit determined under Black-Scholes method for all awards, net of related tax effects	(114,553)	(386,108)
Pro forma net income (loss)	$ 3,981,309	$ (2,246,264)
Basic net income (loss) per common share:		
As reported	$ 1.40	$ (0.53)
Pro forma	$ 1.37	$ (0.60)
Diluted net income (loss) per common share:		
As reported	$ 1.14	$ (0.53)
Pro forma	$ 1.12	$ (0.60)

The fair value of each option granted is estimated as of the grant date using the Black-Scholes option pricing model with the following assumptions:

	2004	2005	2006
Risk-free interest rate range	3.87%	3.9-4.6%	4.55%
Expected life of option-years	7	4.5-7	7
Expected stock price volatility	63%	64%	64%
Expected dividend yield			

The risk-free interest rate is based on US Treasury interest rates, the terms of which are consistent with the expected life of the stock options. Expected volatility is based upon an average volatility of comparable public companies. The expected life and estimated post employment termination behavior is based upon historical experience of homogeneous groups within our company.

Table of Contents

During the year ended December 31, 2006 we granted 1,458,686 options to purchase shares of our common stock. We recognized $1.5 million in share-based payment expense related to options issued in 2006, and will recognize $5.4 million over the remaining requisite service period, ranging from four to five years.

Advertising

We charge the cost of advertising to expense as incurred. Such amounts have not been significant to our operations.

Income Taxes

We account for income taxes using the liability method. Deferred tax assets or liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities as measured by the enacted tax rates which will be in effect when the differences reverse. A valuation allowance against net deferred assets is provided unless we conclude it is more likely than not that the deferred tax assets will be realized.

Recent Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements. SFAS No. 157 defines fair value, establishes a framework for measuring fair value and expands disclosure requirements about fair value instruments. We believe that the adoption of SFAS No. 157 will not have a material impact on our financial statements.

In February 2007, the FASB issued SFAS No. 159, The Fair Value Option for Financial Assets and Financial Liabilities Including an amendment of FASB Statement No. 115. SFAS No. 159 permits entities to choose to measure many financial instruments and certain other items at fair value. Unrealized gains and losses on items for which the fair value option has been elected will be recognized in earnings at each subsequent reporting date. We do not believe the adoption of SFAS No. 159 will have a material impact on our financial statements.

In September 2006, the Securities and Exchange Commission staff published Staff Accounting Bulletin (SAB) No. 108, Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements. SAB No. 108 addresses quantifying the financial statement effects of misstatements, specifically, how the effects of prior year uncorrected errors must be considered in quantifying misstatements in the current year financial statements. SAB No. 108 is effective for fiscal years ending after November 15, 2006. The adoption of SAB No. 108 by our Company in the fourth quarter of 2006 did not have a material impact on our consolidated financial statements.

In July 2006, the FASB issued FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes (Interpretation No. 48). Interpretation No. 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise s financial statements in accordance with SFAS No. 109, Accounting for Income Taxes. Interpretation No. 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Interpretation No. 48 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. For our Company, Interpretation No. 48 was effective beginning January 1, 2007, and the cumulative effect adjustment, if any, will be recorded in the first quarter of 2007. We believe that the adoption of Interpretation No. 48 will not have a material impact on our consolidated financial statements.

In May 2005, the FASB issued SFAS No. 154, Accounting Changes and Error Corrections, a replacement of Accounting Principles Board (APB) Opinion No. 20 and FASB Statement No. 3. SFAS No. 154 requires retrospective application to prior periods financial statements of a voluntary change in accounting principle

Table of Contents

unless it is impracticable. APB Opinion No. 20, Accounting Changes, previously required that most voluntary changes in accounting principle be recognized by including in net income of the period of the change the cumulative effect of changing to the new accounting principle. SFAS No. 154 became effective for our Company on January 1, 2006. The adoption of SFAS No. 154 did not have a material impact on our consolidated financial statements.

2. Accounts Receivable Trade

Accounts receivable consist of the following at:

	December 31,	
	2005	2006
Billed	$ 3,359,045	$ 5,019,325
Unbilled:	1,757,263	2,123,945
Other	13,603	109,146
	5,129,911	7,252,416
Less: allowance for doubtful accounts		(19,010)
	$ 5,129,911	$ 7,233,406

Unbilled receivables result from contract retainages and revenues that have been earned in advance of billing and can be invoiced at contractually defined intervals or milestones, or at completion of the contract. Advance payments on uncompleted contracts amounts $744,056 and $91,124 for the periods ended December 31, 2005 and 2006, respectively. Such amounts are included in deferred credits in our accompanying balance sheet.

3. Property and Equipment

Property and equipment consists of the following at:

	December 31,	
	2005	2006
Equipment	$ 2,799,703	$ 4,518,091
Furniture and fixtures	189,285	486,474
Software	791,440	970,564
Leasehold improvements	1,896,278	3,175,598
	5,676,706	9,150,727
Less: accumulated depreciation	(2,704,419)	(3,420,633)
	$ 2,972,287	$ 5,730,094

Depreciation and amortization for the periods ended December 31, 2004, 2005 and 2006, was approximately $353,000, $380,000 and $775,000, respectively.

4. Intangible Assets

The following is a summary of intangible assets:

	December 31, 2005	2006
Goodwill	$	$ 418,073
Patent costs	1,205,621	1,508,954
Other capitalized intellectual property rights		577,644
	1,205,621	2,504,671
Less: accumulated amortization	(206,077)	(473,182)
	$ 999,544	$ 2,031,489

Table of Contents

Amortization for the periods ended December 31, 2004, 2005 and 2006, was approximately $28,000, $160,000 and $346,000, respectively. No impairment loss was recognized for the period ending March 31, 2006.

Estimated aggregate amortization for each of the next five years is as follows:

Year Ended December 31,	
2007	$ 453,322
2008	409,357
2009	335,515
2010	254,950
2011	139,531
Thereafter	20,741
	$ 1,613,416

5. Investment in Affiliates

We had investments in two affiliates, Luna Technologies, Inc. (Luna Technologies) and Luna Energy, LLC (Luna Energy), which were accounted for using the equity method of accounting. As discussed in Note 1, our consolidated statements of operations includes our share of net earnings or losses of these companies to the extent of investments in and advances to such companies.

Luna Technologies

Luna Technologies, formerly a wholly-owned subsidiary until 2000, is engaged in the development and production of optical fiber test equipment and data acquisition systems. In fiscal year 2000, the Board of Directors of Luna Technologies approved a plan to spin-off Luna Technologies and raise additional equity financing in order for management to more fully execute Luna Technologies business plan. We retained a minority interest in Luna Technologies of approximately 23.0% subsequent to the spin-off. Between December 2000 and March 2003, Luna Technologies had received additional equity financing from non-affiliated investors which diluted our ownership percentage to approximately 7.0%. As our Chief Executive Officer and certain members of management maintained representation at the board level, allowing us to exercise significant influence over the operations of Luna Technologies. We accounted for our interest under the equity method during 2004 and through the acquisition of the remaining outstanding common stock on September 30, 2005.

Our share of losses in Luna Technologies for the year ended December 31, 2004, and for the nine months ended September 30, 2005 were $58,904 and $0, respectively. We also recognized $3,000 and $13,500 in revenues from Luna Technologies for various administrative and consulting services in these periods.

Luna Energy

We formed Luna Energy on February 12, 2002, for the purpose of transferring certain intellectual property rights related to technology to be used in the oil and gas industry. On February 19, 2002, we entered into a Purchase and Sale agreement with a subsidiary of Baker Hughes Oilfields Operations, Inc. (BHI) for the purchase of a 40% interest in Luna Energy. BHI paid us an up-front payment of $10 million for the 40% equity interest as well as licensing rights to use the intellectual property transferred to Luna Energy. In connection with this agreement, we were also required to enter into a Research and Development Agreement with Luna Energy for the development of certain new technology for the benefit of BHI. BHI committed to pay us an additional $8 million upon achievement of certain milestones which were tied to the development of the new technology. Additionally, BHI committed to provide Luna Energy with $12 million in financing over an estimated collaboration period of three years.

As there was no objective and reliable evidence of fair value for deliverables in this arrangement, consistent with the revenue recognition provisions of Staff Accounting Bulletin No. 104 *Revenue Recognition* and the

Table of Contents

multi-element arrangement provisions of EITF 00-21, the proceeds from the $10 million payment were recognized ratably over the expected three year collaboration period as license revenues.

As previously discussed, BHI agreed to provide substantially all of the working capital required to fund Luna Energy s operations for three years. Additionally, in accordance with Luna Energy s Amended and Restated LLC agreement, BHI was provided certain approval rights which gave them substantive participation in the operations of Luna Energy. These rights included, but were not limited to, approval over the adoption or amendment of annual and period operating and capital budgets, approval over any single material expenditure by Luna Energy in excess of $10,000, approval over any action by Luna Energy to cease the operations of Luna Energy or to change its business focus, and approval over the election or re-election of officers of Luna Energy. Accordingly, consistent with the provisions of EITF Issue No. 96-16, *Investor s Accounting for an Investee when the Investor Has a Majority of the Voting Interest but the Minority Shareholder or Shareholder Have Certain Approval or Veto Rights*, we did not consolidate Luna Energy but accounted for our interest under the equity method. We were not required to provide any capital financing to Luna Energy from inception through the three-year collaboration period, nor was there any carrying value for the intellectual property transferred to Luna Energy. Therefore, we had no basis to record losses from Luna Energy until 2004 when we advanced it $198,000. Luna Energy s operating results did not have a material effect on our financial position or our results of operations. As such, condensed financial information on Luna Energy has not been presented.

In December 2004, BHI acquired all of our remaining equity interest in Luna Energy for a non-refundable payment of $990,000. Such amount was recognized as revenue at that date as we had no further obligation to Luna Energy or BHI.

In addition to our licensing and development arrangement, we also performed subcontract services on certain research contracts for Luna Energy. Total revenues earned from such contracts for the year ended December 31, 2004 was $176,802.

6. Accrued Liabilities

Accrued liabilities consist of the following at:

	December 31,	
	2005	**2006**
Accrued compensation and related liabilities	$ 646,657	$ 1,137,576
Accrued professional fees	448,634	726,807
Accrued severance and bonuses	401,095	240,997
Accrued royalty	120,000	148,247
Deferred rent	72,048	864,064
Accrued interest		304,704
Other	99,728	204,882
	$ 1,788,162	$ 3,627,277

7. Debt Agreements

Working Capital Facility

We entered into a line of credit agreement with First National Bank (FNB) in December 2001. This agreement, as amended, enabled us to borrow up to $3,000,000, subject to an eligible borrowing base, with interest payable monthly based upon the Wall Street Journal prime rate. The line of credit is collateralized by a blanket interest in our assets and is subject to certain financial covenants.

We received a modified commitment for renewal of the line of credit in November 2006. Under the November 2006 commitment, we may draw up to $2,500,000 for working capital needs. Interest accrues on any

Table of Contents

outstanding balance at the Wall Street Journal prime rate (8.25% at December 31, 2006). Any outstanding principal balance is payable in full on demand or at maturity, June 30, 2007. There were no outstanding borrowings as of December 31, 2005 and 2006.

Virginia Tech Foundation Note

In connection with the Luna Technologies acquisition discussed in Note 5, the Company assumed a promissory note due to the Virginia Tech Foundation for $214,955. The note was paid in full in January 2007.

Convertible Debt

As more fully described in Note 14, we have outstanding notes of $5,000,000 in the aggregate which are convertible, at the option of the holder, into shares of our common stock. The notes accrue simple interest at a rate of 6% annually and mature December 30, 2009.

The following table presents a summary of outstanding debt at December 31, 2005 and 2006.

	December 31	
	2005	2006
Convertible debt (see note 14)	$ 5,000,000	$ 5,000,000
Virginia Tech Foundation note	214,955	214,955
	5,214,955	5,214,955
Less: current payable		(214,955)
	$ 5,214,955	$ 5,000,000

Future maturities of long-term debt as of December 31, 2006 are as follows:

	Amount
Year ending December 31,	
2007	$ 214,955
2008	
2009	5,000,000
Total debt	$ 5,214,955

8. Income Taxes

Deferred tax assets and liabilities consist of the following components:

	December 31,	
	2005	2006
Research and development credits	$ 1,325,105	$ 2,459,793
Net operating loss carryforwards	800,565	4,330,740
Accrued liabilities	132,759	250,253
Stock-based compensation	141,067	813,949
Depreciation and amortization	(128,804)	(167,107)
Deferred Revenue		27,541
Other		99,498

	2,270,692	7,814,667
Valuation allowance	(1,670,692)	(7,214,667)
Net deferred tax asset	$ 600,000	$ 600,000

Table of Contents

The reconciliation of expected income tax expense (benefit) to actual income tax expense (benefit) was as follows:

	December 31,		
	2004	2005	2006
Statutory federal rate	34.0%	34.0%	34.0%
State tax net of federal benefit	3.9%	3.9%	3.9%
Research and development credit and carryforwards	(0.6%)	22.9%	12.0%
Change in valuation allowance	(19.5%)	(42.4%)	(55.9%)
Capital loss deduction	(18.3%)		
Permanent differences and other	3.5%	3.4%	6.1%
Income tax expense (benefit)	3.0%	21.8%	0.1%

The income tax provision (benefit) consists of the following for:

	December 31,		
	2004	2005	2006
Current:			
Federal	$ (746,343)	$	$
State	(83,321)		12,829
Deferred Federal	852,276	(523,817)	
Deferred State	105,622	(33,435)	
Income tax expense (benefit)	$ 128,234	$ (557,252)	$ 12,829

Realization of deferred income tax assets is dependent upon sufficient future taxable income during the period that deductible temporary differences are expected to be available to reduce taxable income. In assessing whether deferred tax assets may be realized, we consider whether it is more likely than not that some portion, or all of the deferred tax asset will be realized. We consider scheduled reversals of deferred tax liabilities, projected future taxable income, and tax planning strategies that we can implement in making our assessment. We have net operating loss carryforward at December 31, 2006 of approximately $11.4 million expiring at varying dates through 2026. We have recorded a refundable income tax receivable of approximately $396,000, representing net operating losses that we plan to carry back to recover income taxes previously paid. The Company has R&D tax credit carryforwards of approximately $2.5 million which expire at varying dates through 2026.

A tax benefit of $600,000 was recorded at December 31, 2005 and 2006, based upon management s assessment that more likely than not this portion of the entire deferred tax benefit will be realized in future periods. Changes in the deferred tax asset valuation allowance were:

	Year Ended December 31,		
	2004	2005	2006
Balance at beginning of year	$ 1,025,535	$ 642,246	$ 1,670,692
Deductions credited against expenses	383,289		
Additions charged to tax expense		1,028,446	5,543,975
Balance at end of year	$ 642,246	$ 1,670,692	$ 7,214,667

Table of Contents

9. Stockholders Equity

Reverse Stock split

In connection with our initial public offering, we affected a 1-for-1.7691911 reverse stock split of our common stock. All applicable share and per share amounts in the financial statements give retroactive effect to such split.

Redeemable Class B Common Stock

In connection with our acquisition of Luna Technologies on September 30, 2005, we gave the shareholders of Luna Technologies a right to put 310,253 of their shares of Class B Common Stock back to us in the event we are unsuccessful in completing an initial public offering of our common stock by December 31, 2006. Such shares have been classified as Redeemable Class B Common Stock on our December 31, 2005 consolidated balance sheet. The put right terminated upon the completion of our initial public offering.

Warrants

Warrants to purchase 103,508 shares of our Class B Common Stock for $0.001 per share were exercised in November 2005.

In February 2006, we issued 57,542 warrants for Class B Common Stock at an exercise price of $1.77 per share to former Luna Technologies shareholders to prevent dilution by a concurrent stock option grant. The warrants were valued using a Black-Scholes option pricing model with the following assumptions: risk-free rate of 4.55%, expected volatility of 64%, and an expected life of 10 years, which equaled the contractual term. The aggregate fair value of the warrant was $418,074, and this amount has been recorded as additional purchase price for the Luna Technologies acquisition.

Common Stock

Upon the completion of our initial public offering all of the outstanding shares of Class A Common Stock, Class B Common Stock and Class C Common Stock were converted into one class of common stock on a one-for-one basis.

Incentive Stock Option Plan

In April 2003, we adopted the Luna Innovations Incorporated 2003 Stock Plan (the 2003 Plan). Under the 2003 Plan, our Board of Directors is authorized to grant both incentive and nonstatutory stock options to employees, directors and consultants of our Company to purchase shares of Common Stock. Options generally have a life of 10 years and exercise price equal to or greater than the fair market value of the Class B Common Stock as determined by the Board of Directors. A total of 5,000,000 shares of Class B Common Stock were reserved for issuance under the 2003 Plan. On February 4, 2006, our Board of Directors increased the number of shares reserved under the Plan to 9,715,000. The expiration date of the options cannot be more than 10 years from date of grant. A total of 4,024,446 and 4,460,759 options were available for future grant as of December 31, 2005 and 2006.

In August 2003, our Board of Directors authorized an option exchange program expiring on September 19, 2003 whereby option holders of Class A Common Stock issued under a previous plan were given the opportunity to exchange their options for options to purchase Class B Common Stock on a one for one basis. The new option grants were immediately vested on the date of exchange, September 29, 2003, had an exercise price of $0.35 and a life of 10 years from the date of grant. Upon completion of the option exchange program, the previous plan was terminated.

All of the outstanding options from the previous plan had exercise prices in excess of the fair value of our Class A Common Stock as of the date of the exchange. As such, the option exchange was accounted for as a

Table of Contents

repricing in accordance with FIN 44. We are required to apply variable plan accounting to the replacement grant and measure compensation based on the change in fair value of our Common Stock at each reporting period. A total of 172,525 options were exchanged in connection with this transaction, of which 39,596 and 22,335 were outstanding at December 31, 2005 and December 31, 2006, respectively.

Total non-cash share-based compensation expense for the years ended December 31, 2004, 2005 and 2006 was $39,680, $168,926 and $1,677,982 respectively.

As discussed above, on May 23, 2006, in anticipation of our initial public offering, all classes of our common stock and derivative securities exercisable for Class B Common Stock were reverse split on a 1-for-1.7691911 basis. All incentive stock option plan information is reported herein on an as-if converted basis giving effect to such reverse stock split on a retroactive basis.

Upon the completion of our initial public offering in June 2006, all of the outstanding shares of Class A Common Stock, Class B Common Stock and Class C Common Stock, and all options and warrants exercisable into Class B Common Stock, were automatically converted into one class of Common Stock, or options and warrants exercisable into Common Stock, respectively, on a one-for-one basis.

The following table sets forth the activity of our stock options to purchase common stock and gives pro-forma effect to the exchange of Class B common stock and to the reverse stock split discussed above in this Note 9.

	Options Outstanding				Options Exercisable		
	Number of Shares	Price per Share Range	Weighted Average	Aggregate Intrinsic Value(1)	Number of Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value(1)
Balance at December 31, 2003	2,257,600	0.35	0.35	$	1,179,359	0.35	$
Forfeited	(149,827)	0.35	0.35				
Exercised	(9,326)	0.35	0.35				
Granted	144,134	0.35	0.35				
Balance at December 31, 2004	2,242,581	0.35	0.35	$ 515,366	1,594,885	0.35	$ 366,519
Forfeited	(603,687)	0.35	0.35				
Exercised	(238,173)	0.35	0.35				
Granted	2,574,834	0.35 1.77	0.82				
Balance at December 31, 2005	3,975,555	0.35 1.77	0.65	$ 3,962,864	1,519,445	0.36	$ 1,961,849
Forfeited	(178,444)	0.35	0.35				
Exercised	(271,648)	0.35	0.35				
Granted	1,457,131	1.77	1.77				
Balance at December 31, 2006	4,982,594	0.35 7.08	1.26	$ 12,215,503	2,322,665	2.99	$ 6,935,997

(1) The intrinsic value of an option represents the amount by which the market value of the stock exceeds the exercise price of the option of in-money options only. The aggregate intrinsic value is based on the price of $3.58 for the Company s stock on December 31, 2006 which represents the closing price of the Company s Common Stock on the NASD Global Market on that date. Intrinsic value is based upon estimated fair value of $0.35, $0.58, and $1.65 at December 31, 2003, 2004, and 2005, respectively. Fair values for periods prior to our initial public offering in 2006 were estimated at the time by our Board of Directors using available independent data and with assistance from independent valuation specialists.

	Options Outstanding				Options Exercisable	
Range of Exercise Price	Options Outstanding	Weighted Average Remaining Life in Years	Weighted Average Exercise Price	Options Exercisable	Weighted Average Exercise Price of Options Exercisable

Year ended December 31, 2004	$ 0.35	2,242,581	8.8	0.35	1,594,885	0.35
Year ended December 31, 2005	$ 0.35-$1.77	3,975,555	8.9	0.67	1,519,397	0.35
Year ended December 31, 2006	$ 0.35-$7.08	4,982,594	8.2	1.26	2,322,665	0.60

Table of Contents

10. Commitments and Contingencies

Obligations Under Operating Leases

We lease our facilities in Blacksburg, Charlottesville, Danville, Hampton and Roanoke, Virginia under non-cancelable operating leases that expire between May 2008 and September 2012. Certain of the leases include tenant incentives and are subject to fixed escalations. We recognize rent expense on such leases on a straight-line basis over the lease term. Rent expense under these leases was approximately $560,000, $600,000 and $862,000 for the years ended December 31, 2004, 2005 and 2006, respectively.

Minimum future rentals, as of December 31, 2006, under the aforementioned operating leases for each of the next five periods ending are:

(amounts in thousands)	
2007	$ 1,295
2008	1,350
2009	1,199
2010	1,178
2011	1,137
Thereafter	639
	$ 6,798

New Facility Lease

We have entered into an agreement with Carilion Medical Center to lease 20,000 square feet of office space at the Riverside Centre in Roanoke, Virginia that will serve as our headquarters. The landlord of this property, Carilion Medical Center, is an affiliate of Carilion Clinic (formerly Carilion Health System), currently our second largest stockholder. Dr. Edward Murphy, Chairman and Chief Executive Officer of Carilion Clinic became a member of our board of directors in connection with the investment of $7.0 million by Carilion Clinic in August 2005. The lease has a five year minimum term and began on September 11, 2006. Base rent is $480,000 per year, subject to annual escalations of two percent.

Obligation Under Capital Leases

We are obligated under capital leases covering certain equipment and software that expire at various dates during the next four years. Minimum lease payments as of December 31, 2006 were as follows:

2007	$ 88,578
2008	23,884
2009	4,621
2010	51
	117,134
Less amount representing interest	3,883
Present value of net minimum obligation	113,251
Less current obligations	85,378
Long term obligation	$ 27,873

74

Table of Contents

The gross amount of property and equipment and related accumulated amortization recorded under capital leases were as follows at December 31:

	2005	2006
Equipment	$ 292,580	$ 292,580
Software	164,085	164,085
	456,665	456,665
Less accumulated amortization	(297,410)	(360,623)
	$ 159,255	$ 96,042

Governor s Opportunity Fund

In March 2004, we received a $900,000 grant (the Grant) from the City of Danville, Virginia (the City) to be used for the expansion of economic and commercial growth within the City. Specifically, $450,000 of the grant is to be used to offset certain capital expenditures for leasehold improvements being made at our Danville facility, and the remaining $450,000 is to be used for our creation of new jobs upon satisfaction of the conditions described below.

The Grant stipulates that we must make estimated capital expenditures of at least $6,409,000 and create 54 new full time jobs at our Danville facility, at an average wage of at least $39,000 plus benefits within 30 months of the award, and then maintain such employment levels for an additional 30 months. We could be required to repay the grant funds on a pro-rata basis should we fail to satisfy the conditions stipulated in the agreement. As such, since we have not yet met the stipulations of the grant, we have included the $900,000 in deferred credits in the accompanying consolidated balance sheets as of December 31, 2005 and 2006.

Purchase Order

In March 2006, our Luna Technologies Division executed a non-cancelable, non-reschedulable $1.2 million purchase order for multiple shipments of tunable lasers to be delivered over an 18-month period beginning in July 2006. As of December 31, 2006, approximately $738,000 of this commitment remained.

Royalty Agreement

We have licensed certain third-party technology from a vendor that provides for minimum royalties aggregating $3.5 million payable over the remaining patent terms of the underlying technology.

11. Employee Profit Sharing Plan

We maintain a salary reduction/profit-sharing plan under provisions of Section 401(k) of the Internal Revenue Code. The plan is offered to employees who have completed three months of service with us. We contribute 50% of the salary deferral elected by each employee up to a maximum deferral of 10% of annual salary.

We may, at our option, contribute additional amounts to the plan. We contributed approximately $156,000, $213,000, and $400,000 to the plan for the years ended December 31, 2004, 2005 and 2006, respectively.

12. Transfers of Intellectual Property

Biotechnology Company

On December 1, 2003, our subsidiary, Luna Analytics, entered into a license agreement with a biotechnology company granting a worldwide exclusive license for the use of certain patents and technology subject to the terms of the agreement for work in the field of life sciences research applications. We also entered

75

Table of Contents

into a research and development agreement with the licensee to develop additional technology. In exchange for the license rights, we were paid a one-time technology access fee of $1.0 million. The agreement also called for additional payments aggregating to $1.5 million each upon achievement of certain milestones.

Since there was no objective and reliable evidence of fair value for deliverables in this arrangement, we deferred the up-front payment of $1.0 million and were recognizing it ratably over the 10 year collaboration period. In October 2004, this biotechnology company notified us of its desire to terminate the research and development agreement. Since we had no further obligations to this biotechnology company under this arrangement, we recognized the remaining revenues upon the termination of the agreement.

13. Litigation and Other Contingencies

We are not party to any material legal proceedings, nor are we currently aware of any threatened material proceedings. From time to time, we may become involved in litigation in relation to claims arising out of our operations in the normal course of business. While management currently believes the amount of ultimate liability, if any, with respect to these actions will not materially affect our financial position, results of operations, or liquidity, the ultimate outcome of any litigation is uncertain. Were an unfavorable outcome to occur, or if protracted litigation were to ensue, the impact could be material to us.

In July 2005, we received a letter from legal counsel retained by a former employee and consultant that such law firm is investigating whether such former employee has any claims against us, including breaches of contract, fiduciary duty, implied covenants of good faith and fair dealing as well as potential violations of minority stockholder rights that such former employee may have as a stockholder in one of our subsidiaries. On May 30, 2006, we were served process of a complaint filed by the former employee in the Circuit Court for the City of Roanoke, Virginia, alleging that we breached our consulting contract with the former employee, and that we are indebted to the former employee in an unspecified amount of at least $100,000 . We have answered the complaint and intend to defend the company vigorously in this matter. While we believe the former employee s claims are without merit, counsel for such former employee has indicated that it may file additional claims against us. We cannot predict whether such former employee will file additional litigation against us or our subsidiaries or the ultimate outcome of any such litigation.

In December 2006, we settled a contractual dispute with certain former shareholders of one of our subsidiary companies. Total costs incurred in this settlement, including legal fees, were approximately $0.3 million.

We have made, and will continue to make, efforts to comply with current and future environmental laws. We anticipate that we could incur additional capital and operating costs in the future to comply with existing environmental laws and new requirements arising from new or amended statutes and regulations. In addition, because the applicable regulatory agencies have not yet promulgated final standards for some existing environmental programs, we cannot at this time reasonably estimate the cost for compliance with these additional requirements. The amount of any such compliance costs could be material. We cannot predict the impact that future regulations will impose upon our business.

14. Carilion Transactions

In August 2005, we entered into a Class C Common Stock Financing Agreement with Carilion Clinic (Carilion) whereby Carilion committed to providing approximately $15.0 million in equity financing in three tranches subject to certain conditions outlined in the agreement. Carilion purchased 1,492,032 shares of our Class C Common Stock (the first tranche) for an aggregate purchase price of $7.0 million at closing.

On December 30, 2005, we reached an agreement with Carilion to terminate the August 2005 equity Financing Agreement and enter into a new Class C Common Stock Financing Agreement (the New Agreement). Under the New Agreement, Carilion agreed to provide $5.0 million in exchange for five

Table of Contents

$1.0 million convertible promissory notes, and $3.0 million in exchange for 639,442 shares of Class C Common Stock, subject to certain conditions.

The notes sold to Carilion are convertible into Common Stock at a fixed rate of $4.69159 per share. These notes accrue simple interest at a rate of 6.0% per year and are due and payable on December 30, 2009 or a later date if extended by the holders of a majority of the aggregate principal amount of the notes, absent acceleration due to an event of default. The holders of a majority of the aggregate principal amount of the notes may also extend the maturity date of these notes for one additional year by providing notice to us and may further extend the maturity date for up to an additional three consecutive one year periods if we are not eligible for or have elected not to pursue SBIR funding. After the first extension, if any, we will have the right to repay any accrued interest in cash rather than common stock. In addition, the holders may convert their notes (subject to certain limitations) into shares of common stock if we are no longer eligible for SBIR grants or have not applied for an SBIR grant within the preceding 12 months.

In connection with the New Agreement, we amended and restated the investor rights agreement granting Carilion and certain other shareholders the rights to require us to register their shares of Common Stock for resale. Although we could be required to register shares held by these shareholders, there is no liquidated damages provision in the event such shares are not registered and the conversion of such debt can be satisfied with unregistered shares of Common Stock.

15. Relationship with Major Customers

During the years ended December 31, 2004, 2005 and 2006, approximately 51%, 70% and 71%, respectively, of our consolidated revenues were attributable to prime contracts with the U.S. government. In addition, during the years ended December 31, 2004 and 2005, two of our non-government customers accounted for approximately 35% and 14% of our consolidated revenues, respectively, although these customers are not expected to be an ongoing source of revenues of that amount in the future. Our revenues from these major customers were as follows:

	Year ended December 31,		
	2004	2005	2006
U.S. Government	$ 11,509,964	$ 11,471,447	$ 16,651,929
Certain Non-Government Customers	7,918,571	2,245,762	N/A

Our invoiced and outstanding accounts receivable from the U.S. government were $1,525,794 and $2,480,604 at December 31, 2005 and 2006, respectively.

16. Financial Information About Segments

Our operations are divided into two operating segments- Technology Development and Product and Licensing. The Technology Development segment provides applied research to customers in our areas of focus. Our engineers and scientists collaborate with our network of government, academic and industry experts to identify technologies and ideas with promising market potential. We then compete to win fee-for-service contracts from government agencies and industrial customers who seek innovative solutions to practical problems that require new technology. The Technology Development segment derives its revenue primarily from services.

The Product and Licensing segment develops and sells products or licenses technologies based on commercially viable concepts developed by the Technology Development segment. The Product and Licensing segment derives its revenue from product sales, funded product development and technology licenses.

The Chief Executive Officer and his direct reports collectively represent our chief operating decision makers, and they evaluate segment performance based primarily on revenue and operating income or loss. The

Table of Contents

accounting policies of our segments are the same as those described in the Summary of Significant Accounting Policies.

There are no significant inter-segment sales.

	Twelve Months Ended December 31,		
	2004	2005	2006
Technology Development Revenue	$ 13,834,751	$ 15,379,667	$ 18,787,863
Product and License Revenue	8,752,155	1,074,221	4,757,779
Total Revenue	$ 22,586,906	$ 16,453,888	$ 23,545,642
Technology Development Loss	(416,983)	$ (2,519,786)	$ (4,243,331)
Product and License Income (Loss)	4,948,490	8,136	(5,723,223)
Total Operating Income (Loss)	$ 4,531,507	$ (2,511,650)	$ (9,966,554)

Additional segment information is as follows:

	December 31,	
	2005	2006
Total segment assets:		
Technology Development	21,583,007	29,108,744
Product and License	2,550,823	6,108,470
Total	$ 24,133,830	$ 35,217,214

Table of Contents

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE
None.

ITEM 9A. CONTROLS AND PROCEDURES
Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this report, we conducted an evaluation, under the supervision and with the participation of our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in rules 13a- 15 (e) and 15d- (e) under the Securities Exchange Act of 1934 (the Exchange Act.)) based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are effective to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission and (ii) is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Internal Control Over Financial Reporting

This annual report does not include a report of management s assessment regarding internal control over financial reporting or an attestation report of our registered public accounting firm due to a transition period established by the rules of the Securities and Exchange Commission for newly public companies.

Changes in Internal Control Over Financial Reporting

During 2006, we have hired a new Chief Financial Officer and other additional accounting personnel. These individuals have prior experience with external financial reporting in a public company environment and should improve our ability to prepare timely consolidated financial statements as well as to address more complex accounting matters, such as business combinations and share-based payments.

We also intend to continue to establish new and enhanced systems of internal control that we believe will be necessary to allow management to report on, and our independent auditors to attest to, our internal controls. We have implemented a detailed closing schedule to enhance overall completeness and quality of our reporting. We have also taken measures to improve our cutoff and accrual procedures and to improve our estimation of subcontractor expenses and their related revenue. We will continue to review these and other processes to monitor the sufficiency of our policies and procedures.

We do not believe we have material weaknesses or significant deficiencies related to our policies and procedures that pertain to maintenance of records, authorization of receipts and disbursements, or prevention or timely detection of the unauthorized acquisition, use, or disposal of our assets. However, we have not performed specific tests to determine the effectiveness of key controls within these policies and procedures. We intend to monitor those policies and procedures in connection with the establishment of a formally documented system of internal control. We are continuing documentation of our internal controls processes in order to identify additional areas for improvement as well as in anticipation of our future requirements under the Sarbanes-Oxley Act of 2002.

ITEM 9B. OTHER INFORMATION
We believe that all information that was required to be disclosed in a report on Form 8-K during the fourth quarter of 2006 was reported on a Form 8-K during that period.

Table of Contents

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this item regarding our named executive officers and its directors is set forth under Director Compensation and Executive Compensation in our 2007 Proxy Statement to be filed pursuant to Regulation 14A, and in Part I, Item 1, of this Form 10-K, which information is incorporated herein by reference.

Information required by this item regarding Section 16 reporting compliance is set forth under Section 16(a) Beneficial Ownership Reporting Compliance in our 2007 Proxy Statement to be filed pursuant to Regulation 14A, which information is incorporated herein by reference.

Information required by this item regarding our Code of Business Conduct and Ethics (the Code of Ethics) for the Company s senior management and all other employees and directors is set forth under Code of Business Conduct and Ethics in our 2007 Proxy Statement to be filed pursuant to Regulation 14A, which information is incorporated herein by reference. A copy of the Code of Ethics is also posted on our website at www.lunainnovations.com.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item regarding the compensation of our named executive officers and its directors is set forth under Executive Compensation in our 2007 Proxy Statement to be filed pursuant to Regulation 14A, which information is incorporated herein by reference.

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

Information required by this item regarding security ownership of certain beneficial owners, directors and executive officers is set forth under Securities Ownership of Certain Beneficial Owners and Management and Equity Compensation Plans in our 2007 Proxy Statement to be filed pursuant to Regulation 14A, which information is incorporated herein by reference.

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

Information required by this item regarding certain relationships and related transactions is set forth under Certain Relationships and Related Transactions in our 2007 Proxy Statement to be filed pursuant to Regulation 14A, which information is incorporated herein by reference.

Information required by this item regarding director independence is set forth under Director Independence in our 2007 Proxy Statement to be filed pursuant to Regulation 14A, which information is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required under this item may be found under the caption Audit and Related Fees for Fiscal Years 2005 and 2006 in our 2007 Proxy Statement to be filed pursuant to Regulation 14A, and is incorporated herein by reference.

Table of Contents

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

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

(1) Financial Statements. See Index to Consolidated Financial Statements at Item 8 of this Report on Form 10-K.

(2) All other schedules are omitted as the required information is inapplicable or the information is presented in the Consolidated Financial Statements and notes thereto in Item 8 of Part II of this Annual Report on Form 10-K.

(3) Exhibits. The exhibits filed as part of this report are listed under Exhibits at subsection (b) of this Item 15.

(b) Exhibits

Table of Contents

EXHIBIT INDEX

Exhibit No.	Exhibit Document
3.1(1)	Amended and Restated Certificate of Incorporation of the Registrant (Exhibit 3.2)
3.2(2)	Amended and Restated Bylaws of the Registrant (Exhibit 3.4)
4.1(3)	Specimen Common Stock certificate of the Registrant (Exhibit 4.1)
4.2(2)	2003 Stock Plan (Exhibit 10.7)
4.3(4)	2006 Equity Incentive Plan (Exhibit 10.9)
4.4(2)	Form of Senior Convertible Promissory Note (Exhibit 4.2)
4.5(2)	Warrant to Purchase 1,047 Shares of Class B Common Stock of Luna Innovations Incorporated, issued on September 30, 2005 (Exhibit 4.3)
4.6(2)	Warrant to Purchase 2,636 Shares of Class B Common Stock of Luna Innovations Incorporated, issued on November 11, 2005 (Exhibit 4.4)
4.7(2)	Warrant to Purchase 2,554 Shares of Class B Common Stock of Luna Innovations Incorporated, issued on September 30, 2005 (Exhibit 4.5)
4.8(2)	Form of Warrant to Purchase Shares of Common Stock of Luna Innovations Incorporated (Exhibit 4.6)
4.9(2)	Form of Stock Option Agreement (Exhibit 4.7)
10.1(2)	Form of Indemnification Agreement for directors and executive officers (Exhibit 10.1)
10.2(5)	Employment Agreement by and between the Company and Kent A. Murphy (Exhibit 10.1)
10.3(6)	Employment Agreement by and between the Company and Dale E. Messick (Exhibit 10.1)
10.4(5)	Employment Agreement by and between the Company and John T. Goehrke (Exhibit 10.2)
10.5(7)	Amended and Restated Employment Agreement by and between the Company and Scott A. Graeff (Exhibit 10.1)
10.6(3)	Amended Loan Agreement, dated as of May 12, 2006, by and between Luna Innovations Incorporated and First National Bank (Exhibit 10.6)
10.7(2)	Amended and Restated Investor Rights Agreement, dated December 30, 2005, by and among Luna Innovations Incorporated, Carilion Health System and certain stockholders (Exhibit 10.8)
10.8(8)	Amended Lease, dated July 20, 2006, by and between Carilion Medical Center and Luna Innovations Incorporated. (Riverside Center, Roanoke, Virginia) (Exhibit 10.1)
10.9(9)	Industrial Lease Agreement, dated March 21, 2006, by and between Luna Innovations Incorporated and the Industrial Development Authority of Montgomery County, Virginia (3157 State Street, Blacksburg, Virginia) (Exhibit 10.27)
10.10(3)	First Amendment to Industrial Lease Agreement, dated May 11, 2006, by and between Luna Innovations Incorporated and the Industrial Development Authority of Montgomery County, Virginia (3150 State Street, Blacksburg, Virginia) (Exhibit 10.34)
10.11(2)	Commercial Lease, dated March 17, 2003, between Canvasback Real Estate & Investments LLC and Luna Innovations Incorporated (705 Dale Avenue, Charlottesville, Virginia) (Exhibit 10.14)
10.12(2)	Full Service Office Lease, dated August 2003, between Hampton R&D Properties, LLC and Luna Innovations Incorporated (130 Research Drive, Hampton, Virginia) (Exhibit 10.15)

Table of Contents

Exhibit No.	Exhibit Document
10.13(2)	Lease, effective as of January 1, 2005, between the Industrial Development Authority of Danville and Luna Innovations Incorporated (521 Bridge Street, Danville, Virginia) (Exhibit 10.17)
10.14(2)	Grant Agreement, dated March 25, 2004, by and between the City of Danville, Virginia, and Luna Innovations Incorporated (Exhibit 10.21)
10.15(3)	License Agreement No. DN-982, dated June 10, 2002, by and between the National Aeronautics and Space Administration (NASA) and Luna Innovations Incorporated; Modification No. 1 to License Agreement No. DN-982, dated January 23, 2006, by and between NASA and Luna Innovations Incorporated (Exhibit 10.22)
10.16(3)	License Agreement No. DN-951, dated December 20, 2000, by and between NASA and Luna Technologies, Inc. (Exhibit 10.23)
10.17(3)	License Agreement No. DE-384, dated October 28, 2004, by and between NASA and Luna Technologies, Inc. (Exhibit 10.24)
10.18(3)	Fiber Optic Patent License, dated September 22, 2003, by and between United Technologies Corporation and Luna Innovations Incorporated (Exhibit 10.25)
10.19(3)	Amended and Restated License Agreement, dated March 19, 2004, by and between Virginia Tech Intellectual Properties, Inc. and Luna Innovations Incorporated (Exhibit 10.26)
10.20(10)	Co-Operation Agreement, dated August 10, 2006, by and between Luna Technologies, Inc. and Acterna France SAS (Exhibit 10.6)
10.21	Asset Transfer and License Agreement by and between Luna Innovations Incorporated and Coherent, Inc.
10.22	Form of Stock Sale Restriction Letter Agreement
10.23(11)	Amended and Restated Stock Sale Restriction Agreement by and between Luna Innovations Incorporated and Kent A. Murphy, dated as of January 23, 2007. (Exhibit 10.1)
10.24(11)	Amended and Restated Stock Sale Restriction Agreement by and between Luna Innovations Incorporated and Dale E. Messick, dated as of January 23, 2007. (Exhibit 10.2)
10.25(11)	Amended and Restated Stock Sale Restriction Agreement by and between Luna Innovations Incorporated and Scott A. Graeff, dated as of January 23, 2007. (Exhibit 10.3)
10.26(11)	Amended and Restated Stock Sale Restriction Agreement by and between Luna Innovations Incorporated and Robert P. Lenk, dated as of January 23, 2007. (Exhibit 10.4)
10.27(11)	Amended and Restated Stock Sale Restriction Agreement by and between Luna Innovations Incorporated and Scott A. Meller, dated as of January 23, 2007. (Exhibit 10.5)
10.28(11)	Amended and Restated Stock Sale Restriction Agreement by and between Luna Innovations Incorporated and Michael F. Gunther, dated as of January 23, 2007. (Exhibit 10.6)
21.1	List of Subsidiaries
23.1	Consent of Grant Thornton LLP, Independent Registered Public Accounting Firm
24.1	Power of Attorney (see signature page)
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

Table of Contents

Exhibit No.	Exhibit Document
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

(1) Incorporated by reference to the exhibit to the Registrant s Current Report on Form 8-K, Commission File No. 000-52008, dated June 2, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form 8-K.

(2) Incorporated by reference to the exhibit to the Registrant s Registration Statement on Form S-1, Commission File No. 333-131764, filed on February 10, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form S-1.

(3) Incorporated by reference to the exhibit to Amendment No. 5 of the Registrant s Registration Statement on Form S-1, Commission File No. 333-131764, filed on May 19, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form S-1.

(4) Incorporated by reference to the exhibit to Amendment No. 3 of the Registrant s Registration Statement on Form S-1, Commission File No. 333-131764, filed on April 28, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form S-1.

(5) Incorporated by reference to the exhibit to the Registrant s Current Report on Form 8-K, Commission File No. 000-52008, dated July 14, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form 8-K.

(6) Incorporated by reference to the exhibit to the Registrant s Current Report on Form 8-K, Commission File No. 000-52008, dated August 29, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form 8-K.

(7) Incorporated by reference to the exhibit to the Registrant s Current Report on Form 8-K, Commission File No. 000-52008, dated December 20, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form 8-K.

(8) Incorporated by reference to the exhibit to the Registrant s Current Report on Form 8-K, Commission File No. 000-52008, dated July 20, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form 8-K.

(9) Incorporated by reference to the exhibit to Amendment No. 2 of the Registrant s Registration Statement on Form S-1, Commission File No. 333-131764, filed on April 10, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form S-1.

(10) Incorporated by reference to the exhibit to the Registrant s Quarterly Report on Form 10-Q, Commission File No. 000-52008, dated November 13, 2006. The number given in parentheses indicates the corresponding exhibit number in such Form 10-Q.

(11) Incorporated by reference to the exhibit to the Registrant s Current Report on Form 8-K, Commission File No. 000-52008, dated January 23, 2007. The number given in parentheses indicates the corresponding exhibit number in such Form 8-K. Confidential treatment is requested.

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 to be signed on its behalf by the undersigned thereunto duly authorized.

LUNA INNOVATIONS INCORPORATED

By: /s/ KENT A. MURPHY
Kent A. Murphy, Ph.D.
President and Chief Executive Officer

March 30, 2007

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Kent A. Murphy, Ph.D. and Dale E. Messick, and each of them acting individually, as his true and lawful attorneys-in-fact and agents, with full power of each to act alone, with full powers of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, with full power of each to act alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report 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/ KENT A. MURPHY **Kent A. Murphy, Ph.D.**	President, Chief Executive Officer and Director (Principal Executive Officer)	March 30, 2007
/s/ DALE E. MESSICK **Dale E. Messick**	Chief Financial Officer (Principal Financial and Accounting Officer)	March 30, 2007
/s/ N. LEIGH ANDERSON **N. Leigh Anderson, Ph.D.**	Director	March 30, 2007
John C. Backus	Director	
Bobbie Kilberg	Director	
/s/ EDWARD G. MURPHY **Edward G. Murphy, M.D.**	Director	March 30, 2007

/s/ RICHARD W. ROEDEL **Richard W. Roedel**	Director	March 30, 2007
Paul E. Torgersen, Ph.D.	Director	