INOVIO BIOMEDICAL CORP
Form 10-K
March 26, 2010

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Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2009

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

FOR THE TRANSITION PERIOD FROM TO
COMMISSION FILE NO. 001-14888

INOVIO BIOMEDICAL CORPORATION
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE	**33-0969592**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1787 SENTRY PARKWAY WEST **BUILDING 18, SUITE 400** **BLUE BELL, PENNSYLVANIA**	**19422**
(Address of principal executive offices)	(Zip Code)

REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE: **(267) 440-4200**

SECURITIES REGISTERED PURSUANT TO SECTION 12(B) OF THE ACT:

COMMON STOCK, $0.001 PAR VALUE	**NYSE Amex**
(Title of Class)	(Name of Each Exchange on Which Registered)

SECURITIES REGISTERED PURSUANT TO SECTION 12(G) OF THE ACT: **NONE**

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

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 o No ý

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 ý No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes o No o

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. ý

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

Large accelerated filer o	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company ý

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

The aggregate market value of the voting and non-voting common equity (which consists solely of shares of Common Stock) held by non-affiliates of the Registrant as of June 30, 2009 was approximately $68,702,726 based on $0.80, the closing price on that date of the Registrant's Common Stock on the NYSE Amex.

The number of shares outstanding of the Registrant's Common Stock, $0.001 par value, was 102,765,682 as of March 4, 2010.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement to be filed with the Commission pursuant to Regulation 14A in connection with the registrant's 2010 Annual Meeting of Stockholders (the "Proxy Statement') are incorporated by reference into Part III of this Report. Such Proxy Statement will be filed with the Commission not later than 120 days after the conclusion of the registrant's fiscal year ended December 31, 2009.

Table of Contents

TABLE OF CONTENTS

Unless stated to the contrary, or unless the context otherwise requires, references to "Inovio," "the company," "our company," "our," or "we" in this report include Inovio Biomedical Corporation and subsidiaries.

Table of Contents

PART I

ITEM 1. BUSINESS

This Annual Report (including the following section regarding Management's Discussion and Analysis of Financial Condition and Results of Operations) contains forward-looking statements regarding our business, financial condition, results of operations and prospects. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements, but are not the exclusive means of identifying forward-looking statements in this Annual Report. Additionally, statements concerning future matters, including statements regarding our business, our financial position, the research and development of our products and other statements regarding matters that are not historical are forward-looking statements.

Although forward-looking statements in this Annual Report reflect the good faith judgment of our management, such statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties and actual results and outcomes may differ materially from the results and outcomes discussed in or anticipated by the forward-looking statements. Factors that could cause or contribute to such differences in results and outcomes include without limitation those discussed under the heading "Risk Factors" below, as well as those discussed elsewhere in this Annual Report. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report. We undertake no obligation to revise or update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this Annual Report. Readers are urged to carefully review and consider the various disclosures made in this Annual Report, which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operations and prospects.

Overview

Inovio is engaged in the discovery, development, and delivery of a new generation of vaccines, called DNA vaccines, focused on cancers and infectious diseases. Our SynCon technology enables the design of "universal" DNA-based vaccines capable of providing cross-protection against new, unmatched strains of pathogens such as influenza. Our electroporation DNA delivery technology uses brief, controlled electrical pulses to increase cellular DNA vaccine uptake. Initial human data has shown this method can safely and significantly increase gene expression and immune responses. Our clinical programs include human papillomavirus ("HPV")/cervical cancer (therapeutic), avian influenza (preventative), hepatitis C virus ("HCV") and human immunodeficiency virus ("HIV") vaccines. We are advancing preclinical research for a universal seasonal/pandemic influenza vaccine. Our partners and collaborators include University of Pennsylvania, National Microbiology Laboratory of the Public Health Agency of Canada, NIAID (NIH), Merck, Tripep, University of Southampton, and HIV Vaccines Trial Network ("HVTN").

Industry Background

Historical Importance of Vaccines

We believe vaccines have saved more lives and prevented more human suffering than any other human invention. As recently as a century ago, infectious diseases were the main cause of death worldwide, even in the most developed countries. For instance, the Spanish flu pandemic of 1918 killed more people than all the bullets and bombs did during the Great War. Today, there is a vast range of vaccines available to protect against more than two dozen infectious diseases, especially for children. Our society has found that the only way to control or even eliminate diseases is consistent, widespread use of vaccines. For most of the past 25 years the vaccine industry was dominated by a few large

Table of Contents

pharmaceutical companies. Only in recent years improved pricing and technology have helped turned the vaccine market into a growth business. As a result, with pharmaceutical innovation slowing down, many large pharmaceutical companies have turned to vaccines to sustain their growth.

Challenges Facing Vaccines

Despite the advances made to quality of life as a result of the development and use of vaccines over the past century, several significant challenges continue to exist. The technical limitations of conventional vaccine technology have constrained the development of effective vaccines for many diseases. Development of vaccines based on conventional methods requires significant infrastructure in research and manufacturing, and can be time consuming. Safety risks associated with conventional vaccine approaches may offset their potential benefits, as the conventional vaccines we have depended upon employ weakened or dead viruses or different parts of the viruses as vaccines. Further, conventional vaccines are still grown in eggs or cells and harvested over weeks of time with a very inefficient manufacturing process.

In addition, it is important to note a changing dynamic in the broader vaccine marketplace. Traditionally, vaccines have been predominantly focused on the pediatric market, intended to protect children from diseases that could cause them serious harm. Today, there is a growing interest in vaccines against diseases that may affect adolescents and adults, which include both sexually transmitted diseases and infections that strike opportunistically, such as during pregnancy, in immuno-compromised individuals, and in the geriatric population

Inovio's Solution

We believe our DNA vaccine platform comprising our SynCon DNA vaccine constructs and our proprietary electroporation delivery technology has the potential to develop and deliver a new generation of vaccines that are safer than traditional vaccines (our platform uses a non-live, non replicating vaccine), have stronger immune-stimulating power than traditional vaccines and have added advantages with respect to development time and cost. Preclinical studies in animals have demonstrated the safety and potential efficacy of our approach.

The Next Generation of Vaccines: DNA Vaccines

DNA vaccines may be designed to prevent a disease (prophylactic vaccines) or treat an existing disease (therapeutic vaccines). A DNA vaccine consists of a DNA plasmid encoding a selected antigen(s) that is introduced into cells of humans or animals with the purpose of evoking an immune response to the encoded antigen. Information encoded in the DNA plasmid directs the cells to produce antigenic proteins that may then trigger the immune system to mount one or both of two responses: the production of antibodies, known as a humoral immune response, and/or the activation of T-cells, known as a cellular or cell-mediated immune response. These responses can neutralize or eliminate infectious agents (e.g. viruses, bacteria, and other microorganisms) or abnormal cells (e.g. malignant tumor cells). DNA vaccines have several advantages over traditional vaccines in that they are non-pathogenic (meaning they cannot cause the disease), may be effective against diseases which cannot be controlled by traditional vaccines, and are relatively fast, easy and inexpensive to design and produce. DNA vaccines are stable under normal environmental conditions for extended periods of time and do not require continuous refrigeration. Another potentially major advantage of DNA vaccines is their relatively short development cycle. For example, DNA vaccines against newly identified viral agents may be developed within weeks or months, as opposed to the years often required to develop a traditional vaccine candidate. DNA vaccines against cancer use a portion of the genetic code of a cancer antigen to cause a host to produce proteins of the antigen that may induce an immune response.

Table of Contents

Inovio's SynCon DNA Vaccines

Our DNA vaccines are designed to generate specific antibody and/or T-cell responses, but our vaccine design process reaches further. Employing bioinformatics, combining extensive genetic data, sophisticated algorithms, and ultra-powerful computing, our design process is able to synthetically define antigens and gene sequences common across different viral sub-types or taxonomic groups (families) of HIV, HCV, HPV, and influenza. By synthetically deriving this consensus of genes that look similar to a diverse panel of viral antigens, our SynCon DNA vaccine constructs may provide a solution to the genetic "shift" and "drift" that is typical of these infectious diseases and be able to fight newly emergent, unmatched strains of a virus. SynCon immunogens are able to elicit broad, diverse immune responses, which in theory are important to protect against variable pathogens such as influenza, HCV and possibly HIV.

More technically speaking, SynCon DNA vaccine antigens are designed by aligning numerous primary sequences and choosing DNA-based triplets for the most common amino acid at each site. These antigens are further optimized for codon usage, improved mRNA stability, and enhanced leader sequences for ribosome loading. The DNA inserts are therefore optimized at the genetic level to give them high expression capability in human cells.

We believe these design capabilities allow us to better target appropriate immune system mechanisms and produce a higher level of the coded antigen to enhance the overall ability of the DNA vaccine to induce the desired immune response.

Pre-clinical studies have shown that immunization of mice and non-human primates using SynCon DNA vaccine constructs elicited an immune response against multiple sub-types of the HIV, HCV, HPV, and influenza viruses. Vaccine candidates for all these diseases are being advanced through preclinical and clinical studies.

Electroporation DNA Delivery Technology

Our DNA vaccine candidates are being delivered into cells of the body using our highly efficient, proprietary electroporation (EP) DNA delivery technology, which uses the brief application of high-intensity, pulsed electric fields to create temporary and reversible permeability, or pores, in the cell membrane. Efficient delivery of DNA vaccines in humans has been thought to be the shortcoming of earlier generations of DNA vaccines. Most drugs and biologics must enter into a cell through a cell membrane in order to perform their intended function. However, gaining entry into a cell through the outer cell membrane can be a significant challenge. Electronic pulse-induced permeabilization of the cellular membrane, generally referred to as electroporation, has the observable effect that there is a less restricted exchange of molecules between the cell exterior and interior the benefit being that it allows and enhances the uptake of, for example, a biopharmaceutical agent previously injected into local tissue. The extent of membrane permeabilization depends upon various electrical, physical, chemical, and biological parameters.

The transient, reversible nature of this electrical permeabilization of membranes is the underlying basis of our electroporation systems, which are designed to harness this phenomenon by delivering controlled electrical pulses into tissue to facilitate the uptake of useful biopharmaceuticals. Our technology generates localized electric fields in targeted tissue to induce electroporation, which increases cellular uptake even for large molecules such as DNA. Most cell types and tissue can be successfully electroporated as long as applicators with the appropriate configuration of needle electrodes can be used to expose cells and tissues to the electric field.

Alternative delivery approaches based on the use of viruses and lipids are complex and expensive, and have in the past created concerns regarding safety and cause unwanted immune responses against themselves. We believe electroporation provides a relatively straightforward, cost effective method for

Table of Contents

delivering DNA into cells with high efficiency and minimal complications (as compared to viral vectors) and, importantly, inducing clinically relevant levels of gene expression.

Products and Product Development

Independently and together with our licensees and collaborators, we are currently developing a number of DNA-based vaccines and therapeutics for the prevention or treatment of cancer and chronic infectious diseases. The table below summarizes progress in our independent, collaborative and out-licensed product development programs as of December 31, 2009.

		Pre-Clinical Studies		Development Status				
Product Area	**Product Target and Indication(s)**	**In Vitro**	**In Vivo**	**Phase I**	**Phase II**	**Phase III**	**Phase IV**	**Development Lead**
DNA Vaccine tumor-associated antigen therapeutic vaccines	HER-2 and CEA-expressing cancers	X	X	X				Merck
	Prostate Cancer	X	X	X*				Univ. of Southampton
	hTERT-expressing cancers	X	X	IP				Merck
	Cervical Cancer (VGX-3100)	X	X	IP				Inovio
DNA Delivery Infectious disease vaccine	Avian Influenza (VGX-3400)	X	X	IP				Inovio
	Universal Influenza (VGX-3500)	X	X					Inovio
	HCV Vaccine	X	X	IP				Tripep
	Preventative HIV Vaccine (PENNVAX -B)(1)	X	X	X				HVTN
	Preventative HIV Vaccine (PENNVAX -B)	X	X	IP				HVTN
	Therapeutic HIV Vaccine (PENNVAX -B)	X	X	IP				UPENN
	Preventative HIV Vaccine (PENNVAX -G)	X	X					US Army
	Preventative HIV Vaccine (PENNVAX -GP)	X	IP					NIH/NIAID
	Biodefense Targets	X	IP					US Army
	Unspecified Targets	X	IP					Inovio

X = Completed

IP = In Progress

* = Final data pending

(1) = without electroporation

Infectious Diseases: DNA Vaccines

Therapeutic Hepatitis C Virus (HCV) Vaccine

Hepatitis is a disease characterized by inflammation of the liver. HCV is a major cause of acute hepatitis. HCV is spread primarily by direct contact with human blood, the major causes worldwide being the use of unscreened blood transfusions, and re-use of needles and syringes that have not been adequately sterilized. As many as 70% - 90% of newly infected patients may progress to develop chronic infection (WHO: 2002). Of those with chronic liver disease, 5% - 20% may develop cirrhosis.

Table of Contents

About 5% of infected persons may die from the consequences of long term infection (due to liver cancer or cirrhosis). Globally, an estimated 170 million people are chronically infected with HCV, which represents a reservoir sufficiently large for HCV to persist, and 3 to 4 million persons are newly infected each year. In the US, while new incidences of HCV have dropped dramatically, an estimated 4.1 million (1.6%) Americans have been infected with HCV, of whom 3.2 million are chronically infected (Centers for Disease Control and Prevention: 2006).

In January 2006, we signed an agreement with Sweden-based Tripep to co-develop a therapeutic vaccine for HCV using electroporation. The vaccine is based on Tripep's proprietary HCV antigen construct and delivered to infected individuals using our MedPulser® DNA Delivery System. The study is being conducted at the Karolinska Institute's University Hospital in Sweden. The terms of the development agreement call for each party to fund a portion of the Phase I and subsequent Phase II trials and thereafter share profit according to their contribution. We have 33% ownership in the overall product with the option to increase this to 50% after the completion of the Phase I/II trial.

In November 2009, we announced the completion of the Phase I clinical study with Tripep of ChronVac-C hepatitis C virus DNA vaccine delivered using our electroporation technology. The study established the safety and tolerability of this therapy, with vaccine-induced immune responses and transient effects on the serum levels of HCV in these chronically infected patients providing proof-of-concept of DNA vaccines delivered using electroporation.

We believe the results of this clinical study will contribute to the advancement of all our programs for DNA vaccines delivered using electroporation, including those for influenza, HIV, cervical cancer, and other infectious diseases discussed below.

Preventative and Therapeutic HIV Vaccines

Since its discovery in 1981, AIDS has killed more than 25 million people. In 2005, the total number of HIV-infected people worldwide reached an estimated 38.6 million, with 4.1 million newly infected individuals. In 2005, the disease claimed approximately 3.1 million lives. UNAIDS estimates that 60,000 individuals were newly infected with HIV across the U.S. and Western Europe in 2005, bringing the number of HIV-infected people to approximately 1.75 million. Over half of these individuals live in the U.S.

In 2005, the HIV market accounted for 1.8% of global pharmaceutical sales and 17% of total anti-infective sales. Although this is relatively small compared to other therapeutic areas, the HIV market has experienced strong growth. It generated $7.4 billion of sales in 2005 and experienced a compound annual growth rate of 13.3% from 2001-2005, making it one of the fastest growing infectious disease markets.

Effective vaccines have been actively pursued for over 20 years, without success. HIV represents one of the most confounding targets in medicine. The virus' high mutagenicity (ability to mutate) has made effective vaccine development very challenging. Its outer envelope, swathed in sugar molecules, is difficult to attack, and HIV strikes the very cells that the immune system launches to thwart such an infection. Although several drugs (antiretrovirals) are available to treat the patients once they are infected, vaccines are necessary to stop the spread of disease and perhaps reduce the need for antiretroviral treatment.

Table of Contents

After many years of rapid development and introduction of new anti-retroviral drugs for treatment of HIV infection, the introduction of new drugs to the market for treatment of HIV infection appears to be waning. Available drugs, despite several limitations, have set a high standard that must be met in terms of efficacy. However, there is still a significant need for better HIV therapies and patents are beginning to expire on early HIV drugs. For example, zidovudine is already available as a generic drug and other early HIV drugs will soon face such generic competition. To maintain HIV-related revenues, as well as meet the needs of HIV-infected patients, pharmaceutical companies must develop new drugs with improved profiles, especially in terms of toxicity and increased barriers to development of viral resistance. As a result, the medical and commercial needs are fueling continued interest in the development of new nucleosides (NRTIs), non-NRTIs, and protease inhibitors (PI) for treatment of HIV infection.

Noting that many long-term survivors have high counts of killer CD8+ T cells, the HIV vaccine field has turned to stimulating the immune system to generate those cells. Recent HIV vaccine candidates adopted the use of an adenovirus or a common human cold virus that had been altered to prevent viral replication. These vaccines have proven to not be effective. We believe a different approach is needed to develop an effective vaccine for HIV.

Our HIV vaccines consist of candidates for HIV prevention as well as therapy or treatment. Furthermore, our vaccines are differentiated according to the targeted region of the world with the greatest prevalence of certain HIV subtypes. PENNVAX -B is designed to target HIV clade B (most commonly found in the U.S., North America, Australia and the European Union (EU). PENNVAX -G is designed to target HIV clades A, C and D, which are more commonly found in Asia, Africa, Russia and South America.

Our PENNVAX -B vaccine (without electroporation delivery) Phase I trial (HVTN-070) was completed in 2009. This 120 patient study was sponsored by the National Institute of Allergy and Infectious Diseases' (NIAID) Division of AIDS (DAIDS) and was conducted by the HVTN to evaluate the vaccine's safety and immunogenicity in healthy volunteers. Following this study, in October 2009, along with the HVTN, we initiated a follow-on Phase I study (HVTN-080) of PENNVAX -B (with or without a cytokine) delivered with electroporation using the CELLECTRA® delivery device in healthy, uninfected individuals.

A second IND is now open, allowing testing of PENNVAX -B in a therapeutic setting. This Phase I trial (HIV-001) is being conducted in collaboration with the University of Pennsylvania and targets HIV-positive individuals. The electroporation-delivered PENNVAX -B arm of this trial will start in early 2010. If the Phase I studies are successful in demonstrating enhanced immunological responses to the HIV antigens, then we will partner with the HVTN or another governmental organization to further develop the HIV candidate vaccines through Phase II and Phase III clinical studies. It is anticipated that given the critical need for preventive and therapeutic vaccines for HIV, any commercialization will likely be through a big pharmaceutical company partner for the North American and EU markets and a world health agency for the developing world markets.

In 2010, we plan to initiate a new prophylactic HIV Phase I trial (RV262) in collaboration with the US Army. The study will test PENNVAX -G delivered with electroporation in conjunction with a modified vaccinia Ankara- Chiang Mai double recombinant boost.

Due to its prevalence and global health importance, there is a large amount of funding available through various governmental and non-governmental organizations. Most notably, the National Institutes of Health (NIH) awarded us a contract to develop a preventive HIV DNA vaccine candidate in conjunction with electroporation technology for intradermal delivery of DNA vaccines. The contract was awarded under the NIAID's HIV Vaccine Design and Development Teams program and brings together HIV vaccine experts from the University of Pennsylvania School of Medicine and our company. The contract provides up to $23.5 million of funding over seven years, including a base

Table of Contents

period and follow-on option years. The program is focusing on the vaccine candidate, PENNVAX -GP, was developed in the laboratory of DNA vaccines pioneer Professor David B. Weiner at the University of Pennsylvania School of Medicine and licensed to us. The DNA-based vaccine will be delivered using our novel intradermal electroporation technology. This program expands our portfolio of candidate HIV vaccines. The funding and development program covers preclinical optimization, immunogenicity and challenge studies in animal models, IND -enabling toxicology studies, cGMP (current good manufacturing practices) manufacturing of all components of the DNA vaccine and CELLECTRA® device, and the conduct of a Phase I human clinical trial. cGMP manufacture of the PENNVAX -GP constructs to support clinical trials will be conducted at the state of the art manufacturing facility of our affiliate VGX International, Inc. ("VGX Int'l").

HIV remains a challenging and tremendously important area of medical research, and we value the NIH's support to further evaluate the immunogenicity and efficacy of our electroporation delivery system and novel preventive HIV vaccine candidate.

Avian Influenza (H5N1) Vaccine VGX-3400

Influenza is one of the most communicable diseases and it typically affects children and the elderly most severely. Complications from influenza cause more than 200,000 hospitalizations and lead to approximately 36,000 deaths each year in the U.S. alone, according to the Centers for Disease Control. The world is annually subjected to two influenza sessions (one per hemisphere), between three and five million cases of severe illness, and up to 500,000 deaths. A pandemic occurs every ten to twenty years, which infects a large proportion of the world's population and can kill tens of millions of people as the "Spanish Flu" did in just two years (50-100 million deaths during 1918-1919).

New influenza viruses are constantly produced by mutation or reassortment, and can develop resistance to standard antiviral drugs. H5N1 has been spreading from Asia despite the belief that it was under control immediately after outbreaks there in 2004. In 2005, there were reports of H5N1 in wild birds in Europe. In 2006, there were reports of a H5N1 strain in wild birds and poultry in Africa and the Near East. According to the World Health Organization, the H5N1 bird flu has infected 467 people in 15 countries since 2003, with 282 deaths (60% death rate). While H5N1 has never spread widely, one concern is the potential for the lethal H5N1 to "reassort" with another of the influenza sub-types that have been prone to spread more rapidly, possibly creating a more dangerous influenza strain. Through 2006, over 140 million birds have been killed and over $10 billion has been spent to try to contain H5N1 avian influenza.

In pre-clinical studies, vaccination with VGX-3400 generated broadly protective levels of hemagglutination inhibition titers in 100% of the immunized animals in five separate animal models mice, ferrets, rabbits, pigs, and rhesus monkeys. Vaccination with VGX-3400 also protected animals from an unmatched, lethal H5N1 virus challenge in mouse, ferret, and monkey models. VGX-3400 also induced significant levels of antigen-specific CD8+ killer T cell responses.

In March 2010, we announced that VGX received approval in Korea to begin a Phase I clinical trial in healthy volunteers for our SynCon preventive DNA vaccine (VGX-3400) targeting H5N1 avian influenza. We are co-developing VGX-3400 with Korea-based VGX Int'l. The 30-subject 2-dose Phase I study will be conducted in multiple clinical research sites in Korea. A parallel study in the U.S. is also planned for this year. The planned Phase I trial will evaluate three levels of the vaccine for safety and immunogenicity. One dose will be chosen for expanded safety and immunogenicity (Phase II/III) studies.

Although a number of companies have well-developed avian influenza programs and lead vaccine candidates have entered into national stockpiles (US and EU), we believe there exists a need for new antigen-sparing, rapidly adaptable and easily scalable technologies to prepare for the as yet unknown target presented by the next form of avian influenza. Our SynCon platform provides protection from

Table of Contents

known avian influenza viruses (in animal studies) and has also shown the ability to protect against newly emergent, unmatched strains.

Universal Influenza (Pandemic/Season Flu) Vaccine VGX-3500

Conventional vaccines are strain-specific and have limited ability to protect against genetic shifts in the influenza strains they target. They are therefore modified annually in anticipation of the next flu season's new strain(s). If a significantly different, unanticipated new strain emerges, such as the 2009 swine-origin pandemic strain, then the current vaccines provide little or no protective capability. In contrast, we believe that our design approach to characterize a broad consensus of antigens across variant strains of each influenza sub-type creates the ability to protect against new strains that have common genetic roots, even though they are not perfectly matched. By formulating a single vaccine with some or all of the key sub-types, protection may be achieved against seasonal as well as pandemic strains such as swine flu or pandemic-potential strains such as avian influenza noted above. We are focused on developing DNA-based influenza vaccines able to provide broad protection against known as well as newly emerging, unknown seasonal and pandemic influenza strains.

Instead of targeting a specific strain or strains, we have developed a universal vaccine strategy to deal with the ever-changing flu threats. Using our SynCon process, our scientists designed DNA vaccines targeting an optimal consensus of HA, NA, and NP proteins derived from multiple strains of each of the sub-types H1N1, H2N2, H3N2 (these three influenza sub-types having been responsible for the majority of seasonal and pandemic influenza outbreaks in humans during the last century), as well as H5N1. In theory, consensus HA vaccine constructs from each sub-type, delivered in a single shot with our electroporation device, could potentially protect vaccinated subjects from 90-95% of all human seasonal and pandemic influenza concerns.

Moreover, using our approach the vaccines might not have to be administered annually after the first few priming sessions. Rather, the same combination could be used to boost the immune system every few years.

By using SynCon -based consensus sequences, we have developed potent and cross-protective DNA vaccines against multiple influenza strains. Accordingly, we are evaluating the development of two additional DNA vaccines for influenza: VGX-3500, which would protect against the pandemic flu (H1N1 and H5N1) and a "universal" influenza vaccine, to protect against these two sub-types as well as other sub-types. The universal flu vaccine, which consists of plasmids encoding H1HA, H2HA, H3HA, H5HA, NA, and NP, is currently being evaluated in animal models. These vaccines are delivered via the CELLECTRA® electroporation system and induce robust humoral immune responses, which are required for protection from pathogenic influenza infection. The vaccine can be administered with either intradermal or intramuscular injection, although the former raises a greater antibody response.

Cancer: DNA-Based Immunotherapies

In December 2004, we initiated a Phase I clinical trial sponsored by the H. Lee Moffitt Cancer Center using our MedPulser® DNA Electroporation System to deliver plasmid DNA coding for IL-12

Table of Contents

to tumors with the aim of treating malignant melanoma. The study was designed to assess the use of electrical pulses generated by our proprietary electroporation technology to deliver into tumor cells a plasmid DNA encoding a cytokine, interleukin-12, which stimulates adaptive and innate immunity. In December, 2008, we reported that final results of this trial were presented in the peer-reviewed *Journal of Clinical Oncology* in a paper prepared by Drs. Adil Daud, Richard Heller et al, titled, "Phase I Trial of Interleukin-12 Plasmid Electroporation in Patients With Metastatic Melanoma."

The paper concluded: "This first human trial, to our knowledge, of gene transfer utilizing in vivo DNA electroporation in metastatic melanoma showed that it is safe, effective, reproducible, and titratable." The findings showed not only regression of treated melanoma skin lesions, but also regression of distant untreated lesions, suggesting a systemic immune response to the localized treatment.

Cancer: DNA Vaccines

In April 2005, The University of Southampton initiated a U.K. Medicines and Healthcare products Regulatory Agency (MHRA) approved a Phase I/II clinical trial undertaken in collaboration with us. The study used our electroporation technology to deliver a therapeutic plasmid-based DNA vaccine to skeletal muscle with the aim of treating recurrent prostate cancer. The trial, sponsored and led by the University of Southampton, is investigating whether the DNA vaccine, developed at the University of Southampton, can stimulate patients to develop immune responses against prostate cancer and whether use of our electroporation system enhances this response. This academic study is a Phase I/II study of 30 patients with biochemical failure of prostate cancer. The study is testing a DNA fusion vaccine, developed in Southampton, encoding for an immunostimulant sequence from tetanus (DOM) linked to a sequence from prostate specific membrane antigen (PSMA27). The study is also evaluating electroporation as a novel delivery strategy for DNA vaccines compared to DNA delivered without electroporation.

Patient enrollment for this study has been completed. Resultant data has affirmed that this therapy is safe and well-tolerated. Published data of antibody responses in the 30 patients vaccinated in this study indicated that the use of electroporation yielded significantly enhanced antibody responses to DOM while the absence of electroporation resulted in low anti-DOM antibody responses (25-fold mean increase over baseline compared to a 1.5-fold mean increase, respectively). Importantly, the level of antibody response further increased following additional boosts of DNA vaccine delivery via electroporation at later time points. Furthermore, antibody responses persisted out to 18 months of follow-up, a significant result that would be useful in the context of a practical vaccine regimen. This vaccine was found to be safe and well tolerated. Analyses of T-cell immune responses to the PSMA antigen are ongoing.

In December 2007, we received an additional $2.0 million milestone payment from Merck, resulting from the filing of a second Investigational New Drug (IND) application to the Food and Drug Administration (FDA) by Merck for a DNA-based vaccine using our DNA delivery technology. The milestone relates to our collaboration and license with Merck initiated in May 2004 for the development of certain DNA vaccines. Further development of the product may lead to additional milestone payments and royalties to us. We received this milestone payment for our contribution to the collaboration, which has so far demonstrated the high level of gene delivery and expression that is thought to be necessary for the induction of a therapeutic immune response. Merck has funded all clinical development costs of these candidates to date.

As of October 2008, Merck had begun to enroll patients for this study, which is using a DNA vaccine encoding for hTERT to target non-small cell lung, breast and prostate cancers. The vaccine is delivered using our electroporation DNA delivery technology.

Table of Contents

Therapeutic Cervical Cancer Vaccine VGX-3100

Worldwide it is estimated there are 473,000 cases of cervical cancer, and 253,500 deaths per year. In 2008 an estimated 3,870 women in the US were predicted to die of cervical cancer, and around 11,000 new cases are expected to be diagnosed. Cervical cancer is caused by various types of HPV. Many people who may have HPV do not show any signs or symptoms and can therefore pass the virus to others without even knowing it. Prophylactic vaccines aimed at inducing natural immunity against HPV infection in naive (without the disease) individuals have been approved and are effective against HPV infection, but once a person has an established infection, the vaccines are ineffective for preventing development of cervical cancer. There is a need for an effective therapeutic vaccine that could treat HPV caused cervical tumor cells in young women and replace surgical procedures that can affect their reproductive potential. It is estimated that approximately $1.7 billion are spent in the United States each year on treatment of cervical cancer.

Although prophylactic vaccines for HPV, including Merck's Gardasil® and GSK's Cervarix®, have been recently approved, no therapeutic vaccine for HPV/cervical cancer is available. Furthermore, studies suggest that these approved prophylactic vaccines do not have any therapeutic effects in women who are already infected with HPV. Our product is designed to treat cervical cancers arising from HPV 16 and HPV 18, which account for over 70% of the global cases of cervical cancer.

We are currently conducting a Phase I study of our therapeutic cervical cancer vaccine (VGX-3100). VGX-3100 is a DNA vaccine targeting the E6 and E7 proteins of HPV types 16 and 18 and is delivered via in vivo electroporation. In February 2010, we presented additional interim safety and immunogenicity data from the trial. Similar to previously reported data from the initial lowest dose cohort of this Phase I trial, the vaccine was found to be generally safe and well tolerated. While previously reported data showed significant cellular and humoral immune responses, data from this second, intermediate dose group highlighted a significantly increased and dose-related immune response specific to the antigens targeted by the vaccine.

The dose escalation study is designed to test the safety and immunogenicity of VGX-3100 in women with a previous history of cervical intraepithelial neoplasia (CIN) 2/3, a precursor lesion prior to the development of cancer. The trial is enrolling patients in three cohorts of six subjects each with DNA vaccine doses at 0.6 mg (0.3 mg each of two DNA plasmids), 2.0 mg, and 6.0 mg. The immunization regimen consists of each subject receiving the respective dose at day 0, month 1 and month 3. The vaccine is delivered using our proprietary CELLECTRA® intramuscular electroporation delivery device.

All six patients in the second, intermediate dose cohort have been enrolled; samples from the first four patients have been evaluated for immune responses. As with the first cohort, the vaccination procedures were well-tolerated by the subjects in the second cohort. In general, reported adverse events and injection site reactions were mild to moderate and required no treatment.

The preliminary immunological analysis of blood samples collected before and after vaccination indicated the induction of antigen-specific immune responses against the target proteins produced by the vaccine. Antigen-specific cytotoxic T-lymphocyte (CTL) responses were observed against all four antigens (E6 and E7 proteins for HPV types 16 and 18). In this cohort, 2 of 4 vaccinated subjects (50%) developed significant CTL responses, with average responses of 532 spot forming units per million cells after three immunizations. This was a 71% increase in CTL responses compared to the lowest dose cohort, which also yielded 50% responders (3 out of 6) and average CTL responses of 311 SFU per million cells. Generation of tumor-specific T cell responses is believed to be an important characteristic of a potential cancer therapeutic vaccine.

We also tested the samples for antibody responses against the target antigens and observed strong antibody responses in 4 of 4 subjects (100%). Antibodies were generated against all four antigens, as

Table of Contents

tested by the enzyme-linked immunosorbent assay . The current results were an improvement over the results from the first cohort, in which 5 of 6 vaccinated subjects (83%) developed strong antibody responses. The level of antibody responses in the current cohort was 5 - 10 fold higher than that observed in the lowest-dose cohort. The average antibody titer to both HPV E7 proteins in the current cohort was greater than 1:50,000.

Specific antibody responses to tumor antigens can function as an important surrogate potency marker for determining the immunogenicity of a vaccine, i.e. the ability of a vaccine to induce an immune response. We believe our results underscore the potential usefulness of our DNA vaccine platform against infectious disease targets, where generation of antibodies has been shown to be protective.

We expect full enrollment of all three cohorts in the first half of 2010 and complete immunogenicity and safety data to be reported in Q4 2010.

DNA Vaccines for Biodefense

A number of infectious agents that are relatively rare today are poised for an upsurge in incidence by either "natural" or terrorism-related means. For example, natural threats are led by the influenza strain H5N1. An engineered influenza virus for intentional release would pose a significant human threat. Human pathogens that could be employed for terrorist purposes must be easily deliverable.

Since 2001, the U.S. government has spent or allocated over a billion dollars in funding to address the threat of biological weapons. U.S. funding for bioweapons-related activities focuses primarily on research for and acquisition of medicines for defense. Biodefense funding also goes toward stockpiling protective equipment, increased surveillance and detection of biological agents, and improving state and hospital preparedness. The increase in this type of funding is mainly due to the Project BioShield Act adopted in 2004.

There are opportunities to secure development funding and for proof-of principle DNA vaccine studies for biowarfare pathogens and related efforts within our business strategy. Over the past 5 years, we have been successful at securing funding from the US government.

As resources obtained from government funding can be employed to enhance the development of technology in the area of cancer and chronic infectious disease, we plan to continue to pursue opportunities in the area of biodefense. In September 2008 we announced a contract for $933,000 from the Department of Defense (US Army) to continue research and development of DNA-based vaccines delivered via our proprietary electroporation system. The contract will run through May 2010. This project is focused on identifying DNA vaccine candidates with the potential to provide rapid, robust immunity to protect against bio-warfare and bioterror attacks. .

Animal Health/Veterinary

VGX Animal Health, Inc. (VGX AH) a majority-owned subsidiary, has licensed LifeTide , a plasmid-based growth hormone releasing hormone (GHRH) technology for swine. LifeTide is one of only four DNA-based treatments approved for use in animals and is the only DNA-based agent delivered using electroporation that has been granted marketing approval (Australia).

Additional Applications of Inovio's DNA Delivery Technology

In addition to using our technology for human drug and vaccine delivery, it can be used for research to validate new drug targets, to generate monoclonal antibodies, deliver siRNA and other molecules. The use of our technology for research increases general awareness for the technology and may facilitate its transition into clinical development for these other applications. In addition, we

Table of Contents

believe there may be a benefit to exploring future potential applications for our technology in the area of gene therapy to treat genetic disorders.

We continue to pursue limited opportunities in the areas of stem cells, ex-vivo applications and RNAi, where collaborators would provide the majority of required development resources.

Inovio's Electroporation DNA Delivery Technology

Choice of Tissue for DNA Delivery

Skeletal muscle has been a core focus for delivery of DNA vaccines via electroporation because it is mainly composed of large elongated cells with multiple nuclei. Muscle cells are non-dividing, hence long-term expression can be obtained without integration of the gene of interest into the genome. Muscle cells have been shown to have a capacity for secretion of proteins into the blood stream. Secreted therapeutic proteins may therefore act systemically and produce therapeutic effects in distant tissues of the body. In this respect, the muscle functions as a factory for the production of the biopharmaceutical needed by the body. It is envisioned that delivery of DNA by electroporation to muscle cells will circumvent the costly and complicated production procedures of viral gene delivery vectors, protein-based drugs, conventional vaccines and monoclonal antibodies. This approach may provide long-term stable expression of a therapeutic protein or monoclonal antibody at a sustained level.

For vaccination the DNA causes muscle cells to produce antigenic proteins that the immune system will identify as foreign and against which it will mount an immune response. As with conventional vaccines, the immune system will then develop memory of this antigen (and related disease) for future reference. Intramuscular delivery by electroporation of DNA encoded antigens has been shown to induce both humoral (antibody) and cellular (T-cell) immune responses. Table of Contents

While we have generated preclinical and preliminary clinical evidence that intramuscular electroporation-based DNA delivery will be effective for a number of vaccines, electroporation of the skin may also be a relevant route of administration. Skin or intradermal administration is important and is becoming an attractive site for immunization given its high density of antigen presenting cells (APCs). Unlike muscle, skin is the first line of defense against most pathogens and is therefore very rich in immune cells and molecules. Skin specifically contains certain cells that are known to help in generating a robust immune response. With intradermal administration of electroporation, we may be able to demonstrate a comparable immune response to muscle delivery.

We have also investigated *in vivo* delivery of genes directly into tumor cells. Tumor cells can be readily transfected with genes encoded with selected cytokines or potentially lethal proteins for the treatment of a variety of cancers. The goal of effective tumor delivery is the ultimate elimination of the transfected tumor, and we have experienced very few concerns regarding the safety of the procedure in our trials to date.

Our Electroporation Systems

Existing generations of electroporation systems consist of an electrical pulse generator box the size of a large laptop attached by a cord to a separate needle-electrode applicator. We recently unveiled our new CELLECTRA®-SP series of hand-held, cordless electroporation devices. The new CELLECTRA®-SP devices bring together groundbreaking design and engineering advancements to combine all components into a self-contained, easy-to-use portable device the size of a cordless hand tool.

Table of Contents

CELLECTRA® System

There are several configurations in the CELLECTRA® device family. The first covers intramuscular (IM) delivery of DNA; the second covers the intradermal/subcutaneous delivery (ID) of DNA. Both devices have been validated, manufactured under cGMP and are ready for use in human clinical trials. We have filed a device master file (MAF) with the FDA covering the use of the CELLECTRA®-IM EP device in human clinical trials. The device is intended to be used in combination with a DNA plasmid-based vaccine.

The new CELLECTRA®-SP products combine the functionality of our current generation of skin and intramuscular electroporation devices in clinical testing with enhanced form, design, and portability. All components from the pulse generator and applicator are integrated into a cordless, rechargeable device. The rechargeable battery can enable vaccination of several hundred subjects, making the device highly amenable to mass vaccination. The devices are designed to accommodate different electrode arrays to meet the requirements of the particular vaccine and tissue for delivery (skin or muscle).

Elgen System

The Elgen® DNA Delivery System, is designed primarily for muscle delivery. It consists of a computer-controlled, motorized two needle delivery device that injects DNA and delivers electroporation pulses through one pair of needles. An earlier prototype version of this experimental system is currently under evaluation in our clinical trial for a prostate cancer vaccine at the University of Southampton in the U.K.

MedPulser® DNA Electroporation System

Our MedPulser® DNA Electroporation System was designed to create conditions to deliver DNA into tumor cells that promote optimal responses to gene-based immunotherapeutic cytokines. The cytokine-encoding plasmid is first injected with a syringe/needle into the selected tumor. Using a remote control, the pulse generator is switched on. High-voltage electrical pulses are generated and delivered through an attached electrical cord into the injected tissue through an electrode-needle array on the applicator. The electrode-needle array consists of a total of six needle-electrodes. The needle-electrode arrays are available in different sizes and configurations to facilitate access to tumors of different sizes and in different locations.

MedPulser® DNA Delivery System

The MedPulser® DNA Delivery System (DDS) was developed to optimize the delivery of DNA into muscle cells. The modified system is similar to the MedPulser® Electroporation System. The primary differences are in the parameters of the electric pulses delivered by the generator and the needle-electrode configuration of the applicator. The pulse is designed specifically for DNA delivery with a lower strength electrical field of longer duration than for tumor electroporation. The applicator has a four needle-electrode array consisting of one set of opposite pairs. They are available in a range of configurations to meet the requirements of a variety of applications.

All of our electroporation-based DNA vaccine delivery systems noted above can increase levels of gene expression (i.e. production of the immune-system-stimulating protein the vaccine was coded to produce) of "naked" DNA vaccines by 100-fold or more compared to delivery of naked DNA vaccines via conventional injection alone. Delivery of our SynCon™ DNA vaccines into muscle or skin tissue with our electroporation systems have generated robust immune responses in disease models including influenza (H5N1 and H1N1), smallpox, and HIV. The strong immune responses have resulted in protection of immunized animals, most notably ferrets and primates, from death and illness following a challenge with the respective pathogens.

Table of Contents

More significantly, we have translated these animal study findings into positive clinical results. Our clinical studies with electroporation delivery of DNA vaccines in cancer patients have been among the first to demonstrate a generation of potent antigen-specific immune responses in humans. We recently announced that our therapeutic cervical cancer vaccine VGX-3100 showed significant dose-related T-cell and antibody responses in an on-going Phase I study.

Collaborations and Licensing Agreements

We have entered into various arrangements with corporate, academic, and government collaborators, licensors, licensees and others. These arrangements are summarized below and elsewhere in this annual report. In addition, we conduct ongoing discussions with potential collaborators, licensors and licensees.

On March 24, 2010, we entered into a Collaboration and License Agreement (the "Agreement") with VGX Int'l. Under the Agreement, we granted VGX Int'l an exclusive license to Inovio's SynCon™ universal influenza vaccine delivered with electroporation to be developed in certain countries in Asia (the "Product").

As consideration for the license granted to VGX Int'l, we will receive a research and development initiation fee, as well as research support, annual license maintenance fees, and royalties on net Product sales. In addition, contingent upon achievement of clinical and regulatory milestones, we will receive development payments over the term of the Agreement. The Agreement also provides Inovio with exclusive rights to supply devices for clinical and commercial purposes (including single use components) to VGX Int'l for use in the Product.

The term of the Agreement commenced upon execution and will extend on a country by country basis until the last to expire of all Royalty Periods for the territory (as such term is defined in the Agreement) for any Product in that country, unless the Agreement is terminated earlier in accordance with its provisions as a result of breach, by mutual agreement, or by VGX Int'l right to terminate without cause upon prior written notice.

In January 2010, we announced that the Company expanded its existing license agreement with the University of Pennsylvania, adding exclusive worldwide licenses for technology and intellectual property for novel DNA vaccines against pandemic influenza, Chikungunya, and foot-and-mouth disease. The amendment also encompasses new chemokine and cytokine molecular adjuvant technologies. The technology was developed in the University of Pennsylvania laboratory of Professor David B. Weiner, a pioneer in the field of DNA vaccines and chairman of our scientific advisory board. Under the terms of the original license agreement completed in 2007, we obtained exclusive worldwide rights to develop multiple DNA plasmids and constructs with the potential to treat and/or prevent HIV, HCV, HPV and influenza and included molecular adjuvants. These prior and most recent agreements and amendments provide for royalty payments, based on future sales, to the University of Pennsylvania.

In March 2009, we announced an agreement with the PATH Malaria Vaccine Initiative to evaluate in a preclinical feasibility study our SynCon DNA vaccine development platform. More specifically, this collaboration was to design and test DNA vaccine candidates using target antigens from *Plasmodium* species and deliver them intradermally using the CELLECTRA® electroporation device. The collaboration brings together vaccine development and malaria experts from the University of Pennsylvania School of Medicine and Inovio. The program funding is over a year and may have follow-on funding.

In May 2004, we announced a licensing arrangement with Merck for the development of Merck's DNA cancer and infectious disease vaccines. The terms of the agreement include milestone and royalty payments for successful completion of the clinical development of the vaccines by Merck. Under the terms of the agreement, Merck reimbursed us for the co-development of a proprietary electroporation

Table of Contents

system for the delivery of Merck's DNA vaccines. This development and commercialization agreement was an extension of an initial evaluation agreement established in 2003. Merck received the right to use our proprietary technology for two specific antigens with an option to extend the agreement to include a limited number of additional target antigens. In addition, Merck obtained a non-exclusive license to the intellectual property related to the initial two specific antigens. Merck is responsible for all development costs and clinical programs.

In May 2005, we announced that Merck exercised an option for a non-exclusive license for an additional antigen to be used with our MedPulser® DNA Delivery System. This option exercise was provided for under the 2004 license and research collaboration agreement, and brought the total number of antigens licensed by Merck to three. We received an option fee for the additional target antigen. Under the terms of our license agreement with Merck, we are eligible for milestone and royalty payments if certain development goals and commercialization of the device are achieved by Merck.

Market

We anticipate that over the next several years a number of key demographic and technological factors should accelerate growth in the market for vaccines and medical therapies to prevent and treat infectious diseases and cancer, particularly in our product categories. These factors include the following:

Rise in emerging infectious diseases and the threat of pandemics. The attention received by the pandemic potential of avian influenza has mobilized cross-border agencies including governments, world health organizations and private and public corporations to develop effective vaccination and therapeutics strategies. Our candidate vaccines for avian influenza, Chikungunya and dengue are among those intended to serve these needs.

Increased consumer awareness. In areas such as cervical cancer, increased consumer awareness related to human papillomavirus (HPV) infection, the primary cause of cervical cancer, has led to renewed efforts for developing effective therapies. The current vaccines for cervical cancer prevention (Gardasil® and Cervarix®), while being effective measures for prevention in the unexposed population, are ineffective in people infected with HPV.

Large unmet need. In areas such as human immunodeficiency virus (HIV) and hepatitis C virus (HCV) (prevention and therapy) there is a large unmet need with no vaccine options on the market. With the exit of several players in the recent years from the HIV vaccine development area, if our vaccines prove successful we believe we are positioned to obtain a significant market position.

We believe there is a significant unmet clinical need to develop more efficacious vaccines that stimulate cellular immunity (i.e. can induce T-cell responses) and can be applied to diseases such as cancer, hepatitis C or HIV infection. For these applications, our scientists believe that DNA vaccines may offer an improvement over conventional vaccination. Our scientists believe that electroporation of DNA is critical to maximizing the efficiency of DNA vaccination and meeting unmet clinical needs for therapeutic vaccines, which some industry analysts consider to be a multi-billion dollar market opportunity.

Competition

We are aware of several development-stage and established enterprises, including major pharmaceutical and biotechnology firms, which are actively engaged in infectious disease and cancer vaccine research and development. These include Crucell, Sanofi-Aventis, Novartis, GlaxoSmithKline plc, MedImmune, Inc., a wholly owned subsidiary of AstraZeneca, Merck and

Table of Contents

Pfizer Inc. We may also experience competition from companies that have acquired or may acquire technologies from companies, universities and other research institutions. As these companies develop their technologies, they may develop proprietary technologies which may materially and adversely affect our business.

In addition, a number of companies are developing products to address the same diseases that we are targeting. For example, Sanofi-Aventis, Novartis, MedImmune, GlaxoSmithKline, CSL (in collaboration with Merck), and others have products or development programs for influenza. Merck and GlaxoSmithKline have products on the market for cervical cancer in the therapeutic setting; Transgene/Roche have a cervical cancer product in Phase II trials. Much of the development for a HIV vaccine is being done by government and non-government organizations such as the NIH and Bill & Melinda Gates Foundation.

We compete with companies that are developing DNA delivery technologies, such as viral delivery systems, lipid-based systems, or electroporation technology with an aim to carry out in vivo gene delivery for the treatment of various diseases. Currently there are five key DNA delivery technologies: viral, lipids, naked DNA, "gene gun" and electroporation. All are promising technologies, but they each also have their unique obstacles to overcome. We believe our electroporation system is strongly positioned to succeed as the dominant delivery method for DNA vaccines.

Viral DNA Delivery

This technology utilizes a virus as a carrier to deliver genetic material into target cells. The method is very efficient for delivering vaccine antigens and has the advantage of mimicking real viral infection so that the recipient will mount a broad immune response against the vaccine. The greatest limitation of the technology stems from problems with unwanted immune responses against the viral vector, limiting its use to patients who have not been previously exposed to the viral vector and making repeated administration difficult. In addition, complexity and safety concerns increase the cost of vaccines and complicate regulatory approval.

Ballistic DNA Delivery (Gene Gun)

This technology utilizes micron sized DNA-coated gold particles that are shot into the skin using compressed gas. The method has matured considerably over the last 15 years and has been shown to be an efficient method to deliver a number of vaccine antigens. Since the DNA is dry coated, excellent stability of the vaccine can be achieved. The method is limited to use in skin and only a few micrograms of genetic material can be delivered each time. This may limit the utility of the method for targets such as cancer where higher doses of vaccine antigens and stronger T-cell responses are needed.

Lipid DNA Delivery

A number of lipid formulations have been developed that increase the effect of DNA vaccines. These work by either increasing uptake of the DNA into cells or by acting as an adjuvant, alerting the immune system. While there has been steady progress in this field, lipid delivery tends to be less efficient than viral vectors and is hampered by concerns regarding toxicity and increased complexity.

"Naked" DNA Delivery

The simplest DNA delivery mode is the injection of "naked" plasmid DNA into target tissue, usually skeletal muscle. This method is safe and economical but inefficient in terms of cell transfection, the process of transferring DNA into a cell across the outer cell membrane. Unfortunately, it is the least effective way of delivering DNA since only an extremely small fraction (approximately one out of twenty million) of the DNA molecules are taken up by the cells. While the method may have provided

Table of Contents

some utility for the field of gene therapy, a number of clinical studies over the last decade have shown that the method is inadequate for delivering DNA vaccines into large animals and humans.

"Naked" DNA Delivery With Electroporation

When naked DNA injection is followed by electroporation of the target tissue, transfection is significantly greater with resultant gene expression generally enhanced from 100 to 1000-fold. This increase makes many DNA vaccine candidates potentially feasible without unduly compromising safety or cost.

In December 2004, the first patient was treated using Inovio's electroporation system to deliver a plasmid DNA-based immunotherapy and we have initiated, together with partners, additional Phase I clinical trials using our electroporation technology to deliver DNA-based immunotherapies or DNA vaccines. To date our scientists have not observed any serious adverse events that can be attributed to the use of electroporation in these clinical DNA studies.

We believe that the greatest obstacle to making DNA vaccines and immunotherapies a reality has been the lack of safe, efficient, and economical delivery of DNA plasmid constructs into target cells and that electroporation may become the method of choice for DNA delivery into cells in many applications.

There are other companies with electroporation intellectual property and devices. We believe we have significant competitive advantages over other companies focused on electroporation for multiple reasons:

- We have an extensive history and experience in developing the methods and devices that optimize the use of electroporation in conjunction with DNA-based agents. This experience has been validated with multiple sets of interim data from multiple clinical studies assessing DNA-based immunotherapies and vaccines against cancers and infectious disease. Together with our partners and collaborators, we have been the leader in establishing proof-of-principle of electroporation-delivered DNA vaccines and immunotherapies.

- We have a broad product line of electroporation instruments designed to enable DNA delivery in tumors, muscle, and skin.

- We have been very proactive in filing for patents, as well as acquiring and licensing additional patents, to expand our international patent estate.

If any of our competitors develop products with efficacy or safety profiles significantly better than our products, we may not be able to commercialize our products, and sales of any of our commercialized products could be harmed. Some of our competitors and potential competitors have substantially greater product development capabilities and financial, scientific, marketing and human resources than we do. Competitors may develop products earlier, obtain FDA approvals for products more rapidly, or develop products that are more effective than those under development by us. We will seek to expand our technological capabilities to remain competitive, however, research and development by others may render our technologies or products obsolete or noncompetitive, or result in treatments or cures superior to ours.

Our competitive position will be affected by the disease indications addressed by our product candidates and those of our competitors, the timing of market introduction for these products and the stage of development of other technologies to address these disease indications. For us and our competitors, proprietary technologies, the ability to complete clinical trials on a timely basis and with the desired results, and the ability to obtain timely regulatory approvals to market these product candidates are likely to be significant competitive factors. Other important competitive factors will

Table of Contents

include the efficacy, safety, ease of use, reliability, availability and price of products and the ability to fund operations during the period between technological conception and commercial sales.

The FDA and other regulatory agencies may expand current requirements for public disclosure of DNA-based product development data, which may harm our competitive position with foreign and U.S. companies developing DNA-based products for similar indications.

Government Regulation

DNA Vaccine Product Regulation

Any pharmaceutical products we develop will require regulatory clearances prior to clinical trials and additional regulatory approvals prior to commercialization. New gene-based products for vaccine or therapeutic applications are subject to extensive regulation by the FDA and comparable agencies in other countries. The precise regulatory requirements with which we will have to comply are uncertain at this time due to the novelty of the gene-based products and indications, or uses, that are currently under development. Our potential products will be regulated either as biological products or as drugs. In the United States, drugs are subject to regulation under the Federal Food, Drug and Cosmetic Act, or the FDC Act. Biological products, in addition to being subject to provisions of the FDC Act, are regulated in the United States under the Public Health Service Act. Both statutes and related regulations govern, among other things, testing, manufacturing, safety, efficacy, labeling, storage, record keeping, advertising, and other promotional practices.

Obtaining FDA approval or comparable approval from similar agencies in other countries is a costly and time-consuming process. Generally, FDA approval requires that preclinical studies be conducted in the laboratory and in animal model systems to gain preliminary information on efficacy and to identify any major safety concerns. In the United States, the results of these studies are submitted as a part of an IND application which the FDA must review and allow before human clinical trials can start. The IND application includes a detailed description of the proposed clinical investigations.

A company must submit an IND application or equivalent application in other countries for each proposed product and must conduct clinical studies to demonstrate the safety and efficacy of the product necessary to obtain FDA approval or comparable approval from similar agencies in other countries. For example, in the United States, the FDA receives reports on the progress of each phase of clinical testing and may require the modification, suspension, or termination of clinical trials if an unwarranted risk is presented to patients.

To obtain FDA approval prior to marketing a pharmaceutical product in the United States typically requires several phases of clinical trials to demonstrate the safety and efficacy of the product candidate. Clinical trials are the means by which experimental treatments are tested in humans, and are conducted following preclinical testing. Clinical trials may be conducted within the United States or in foreign countries. If clinical trials are conducted in foreign countries, the products under development as well as the trials are subject to regulations of the FDA and/or its counterparts in the other countries. Upon successful completion of clinical trials, approval to market the treatment for a particular patient population may be requested from the FDA in the United States and/or its counterparts in other countries.

Clinical trials for therapeutic products are normally done in three phases. Phase I clinical trials are typically conducted with a small number of patients or healthy subjects to evaluate safety, determine a safe dosage range, identify side effects, and, if possible, gain early evidence of effectiveness. Phase II clinical trials are conducted with a larger group of patients to evaluate effectiveness of an investigational product for a defined patient population, and to determine common short-term side effects and risks associated with the drug. Phase III clinical trials involve large scale, multi-center,

Table of Contents

comparative trials that are conducted to evaluate the overall benefit-risk relationship of the investigational product and to provide an adequate basis for product labeling. In some special cases where the efficacy testing of a product may present a special challenge to testing in humans, such as in the case of a vaccine to protect healthy humans from a life-threatening disease that is not a naturally occurring threat, effectiveness testing may be required in animals.

After completion of clinical trials of a new product, FDA marketing approval must be obtained or equivalent approval in comparable agencies in other countries. For the FDA, if the product is regulated as a biologic, a Biologics License Application, or BLA, is required and if the product is classified as a new drug, a New Drug Application, or NDA, is required. The NDA or BLA must include results of product development activities, preclinical studies, and clinical trials in addition to detailed chemistry, manufacturing and control information.

Applications submitted to the FDA are subject to an unpredictable and potentially prolonged approval process. Despite good-faith communication and collaboration between the applicant and the FDA during the development process, the FDA may ultimately decide, upon final review of the data, that the application does not satisfy its criteria for approval or requires additional product development or further preclinical or clinical studies. Even if FDA regulatory clearances are obtained, a marketed product is subject to continual review, and 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.

Before marketing clearance for a product can be secured, the facility in which the product is manufactured must be inspected by the FDA and must comply with cGMP regulations. In addition, after marketing clearance is secured, the manufacturing facility must be inspected periodically for cGMP compliance by FDA inspectors.

In addition to the FDA requirements, the NIH has established guidelines for research involving human genetic materials, including recombinant DNA molecules. The FDA cooperates in the enforcement of these guidelines, which apply to all recombinant DNA research that is conducted at facilities supported by the NIH, including proposals to conduct clinical research involving gene therapies. The NIH review of clinical trial proposals and safety information is a public process and often involves review and approval by the Recombinant DNA Advisory Committee, of the NIH.

Sponsors of clinical trials are required to register and report results for all controlled clinical investigations, other than Phase I investigations, of a product subject to FDA regulation. Trial registration may require public disclosure of confidential commercial development data resulting in the loss of competitive secrets, which could be commercially detrimental.

Medical Device Manufacturing Regulation

In addition, we are subject to regulation as a medical device manufacturer. We must comply with a variety of manufacturing, product development and quality regulations in order to be able to distribute our electroporation devices commercially around the world. In Europe, we must comply with the Medical Device Directives. We have a Quality System certified by its international Notified Body to be in compliance with the international Quality System Standard, ISO13485, and meeting the Annex II Quality System requirements of the MDD. We completed Annex II Conformity Assessment procedures to allow for the CE Mark of our electroporation devices.

In the U.S., we are required to maintain facilities, equipment, processes and procedures that are in compliance with quality systems regulations. Our systems have been constructed to be in compliance with these regulations and our ongoing operations are conducted within these systems. Commercially distributed devices within the U.S. must be developed under formal design controls and be submitted to the FDA for clearance or approval. All development activity is performed according to formal procedures to ensure compliance with all design control regulations.

Table of Contents

We employ modern manufacturing methods and controls to optimize performance and control costs. Internal capabilities and core competencies are strategically determined to optimize our manufacturing efficiency. We utilize contract manufacturers for key operations, such as clean room assembly and sterilization, which are not economically conducted in-house. We outsource significant sub-assemblies, such as populated printed circuit boards, for which capital requirements or manufacturing volumes do not justify vertical integration.

Other Regulations

We also are subject to various federal, state and local laws, regulations, and recommendations relating to safe working conditions, laboratory and manufacturing practices, the experimental use of animals, and the use and disposal of hazardous or potentially hazardous substances, including radioactive compounds and infectious disease agents, used in connection with our research. The extent of government regulation that might result from any future legislation or administrative action cannot be accurately predicted.

Commercialization and Manufacturing

Because of the broad potential applications of our technologies, we intend to develop and commercialize products both on our own and through our collaborators and licensees. We intend to develop and commercialize products in well-defined specialty markets, such as infectious diseases and cancer. Where appropriate, we intend to rely on strategic marketing and distribution alliances.

We believe our plasmids can be produced in commercial quantities through uniform methods of fermentation and processing that are applicable to all plasmids. We believe we will be able to obtain sufficient supplies of plasmids for all foreseeable clinical investigations.

Relationship with VGX Int'l

We acquired an equity interest in VGX Int'l in 2005. As of December 31, 2009 we owned 19.65% of the outstanding capital stock of VGX Int'l and VGX Int'l owned 294,360 shares of our common stock. None of our current officers, directors, or key employees beneficially owns, directly or indirectly, any securities of VGX Int'l. Dr. J. Joseph Kim, our CEO, Young Park, our corporate secretary and Bryan Kim, our vice president of Asian operations, currently constitute three of the four members of VGX Int'l's board of directors and receive customary compensation from VGX Int'l for their service in such capacity. Dr. Kim also served as chief executive officer of VGX Int'l prior to our acquisition of VGX Pharmaceuticals, Inc. in June 2009. Bryan Kim currently serves as the president and chief executive officer of VGX Int'l.

In 2008 we sold our manufacturing operations (including patent rights to certain manufacturing technology) to VGXI, Inc, a wholly-owned U.S. subsidiary of VGX Int'l. In connection with this transfer we entered into a Supply Agreement pursuant to which VGXI, Inc., a cGMP contract manufacturer, produces and supplies the DNA plasmids for all of our research and clinical trials. The price of the plasmids we purchase from VGXI, Inc. is determined by us and VGX Int'l at the time of order placement or, with respect to product supplied in connection with a grant contract, based on the contracted bid provided by the applicable agency. We agreed to treat VGX Int'l and its subsidiary as our most favored supplier for DNA plasmids and VGX Int'l and its subsidiary agreed to treat us as their most favored customer. Before we can manufacture DNA plasmids on our own behalf or engage a third party other than VGX Int'l or its subsidiary to manufacture DNA plasmids for us, we must first offer such manufacturing work to VGX Int'l or its subsidiary.

We have also entered into a license and collaboration agreements pursuant to which we have granted VGX Int'l exclusive rights to certain of our product candidates in certain jurisdictions. For example, VGX Int'l has exclusive rights in countries including Korea to our VGX-3400 for treatment of

Table of Contents

the avian flu. In exchange for these rights VGX Int'l shares the development costs for some of our product candidates.

For the year ended December 31, 2009, we recognized revenue from VGX Int'l of $59,000, which consisted of milestone fees, device lease fees and consulting and other fees. Operating expenses related to VGXI, Inc. for the year ended December 31, 2009 were $1.7 million relating to manufacturing and engineering services as well as $56,000 for regulatory and technical support and other consulting services received. At December 31, 2009 we had an accounts receivable balance of $59,000 from VGX Int'l and its subsidiaries.

Intellectual Property

Patents and other proprietary rights are essential to our business. We file patent applications to protect our technologies, inventions and improvements to our inventions that we consider important to the development of our business. We believe we have a comprehensive patent portfolio in the United States and in key foreign markets. We also rely upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain our competitive position

Our intellectual property portfolio covers our proprietary technologies, including electroporation delivery and vaccine related technologies. As of February 1, 2010, our patent portfolio included over 81 issued U.S. patents and 233 issued foreign counterpart patents.

Key vaccine related technology patents and published patent applications include the following:

European patent no. 1809336B1, entitled, "Growth Hormone Releasing Hormone (GHRH) Enhances Vaccination Response"

International publication WO 08/014521, entitled, "Improved Vaccines and Methods for Using the Same," which includes HCV, HPV, influenza, HIV, and cancer (hTERT) SynCon™ DNA.

International publication WO2009/099716, entitled, "Novel Vaccines Against Multiple Subtypes Of Dengue Virus."

International publication WO2009/073330, entitled, "Novel Vaccines Against Multiple Subtypes Of Influenza Virus."

US Pat No. 7,245,963, entitled, "Constant Current Electrode Assembly for Electroporation," which covers the CELLECTRA® electroporation device.

Key electroporation related patents covering range of field strengths include the following:

US Pat No. 5,273,525 issued December 28, 1993 (expires 2013)

US Pat No. 6,110,161 issued August 29, 2000

US Pat No. 6,261,281 issued July 17, 2001

US Pat No. 6,958,060 issued October 25, 2005

US patent 6,939,862 issued September 6, 2005

If we fail to protect our intellectual property rights adequately our competitors might gain access to our technology and our business would thus be harmed. In addition, defending our intellectual property rights might entail significant expense. Any of our intellectual property rights may be challenged by others or invalidated through administrative processes or litigation. In addition, our patents, or any other patents that may be issued to us in the future, may not provide us with any competitive advantages, or may be challenged by third parties. Furthermore, legal standards relating to the validity, enforceability and scope of protection of intellectual property rights are uncertain. Effective patent, trademark, copyright and trade secret protection may not be available to us in each

Table of Contents

country where we operate. The laws of some foreign countries may not be as protective of intellectual property rights as those in the United States, and domestic and international mechanisms for enforcement of intellectual property rights in those countries may be inadequate. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon or misappropriating our intellectual property or otherwise gaining access to our technology. We may be required to expend significant resources to monitor and protect our intellectual property rights. We may initiate claims or litigation against third parties for infringement of our proprietary rights or to establish the validity of our proprietary rights. Any such litigation, whether or not it is ultimately resolved in our favor, would result in significant expense to us and divert the efforts of our technical and management personnel.

Significant Customers and Research and Development

During the year ended December 31, 2009 we derived 50% of our revenue from Wyeth and 33% of our revenue from the NIAID; during the year ended December 31, 2008 we derived 40% of our revenue from Wyeth. Revenues from Wyeth were generated under a collaboration and licensing agreement, which Wyeth terminated in July 2009.

Since our inception, virtually all of our activities have consisted of research and development efforts related to developing our electroporation technologies and DNA vaccines. Research and development expense consists of expenses incurred in performing research and development activities including salaries and benefits, facilities and other overhead expenses, clinical trials, contract services and other outside expenses. Our research and development expense was $9.4 million in 2009 and $5.8 million in 2008.

Corporate History and Headquarters

Inovio was originally incorporated on June 29, 1983, under the laws of California as Biotechnologies & Experimental Research, Inc. The entity changed its corporate name to BTX, Inc. on December 10, 1991, and Genetronics, Inc. on February 8, 1994. On April 14, 1994, the board of directors approved a share exchange agreement with Consolidated United Safety Technologies Inc. On September 2, 1997, the company listed on the Toronto Stock Exchange as Genetronics Biomedical Ltd, under the laws of British Columbia, Canada, which wholly-owned Genetronics, Inc. On June 15, 2001, the entity completed a change in jurisdiction of incorporation from British Columbia, Canada, to the state of Delaware and became Genetronics Biomedical Corporation, a Delaware corporation. On January 17, 2003, Genetronics voluntarily de-listed from the Toronto Stock Exchange. On March 31, 2005, the corporate name changed from Genetronics Biomedical Corporation to Inovio Biomedical Corporation. On June 1, 2009, Inovio completed the acquisition of VGX Pharmaceuticals, Inc. ("VGX"), a privately-held company, pursuant to the terms of an Amended and Restated Agreement and Plan of Merger dated December 5, 2008, as further amended on March 31, 2009 by and among Inovio, Inovio's wholly-owned subsidiary Inovio Acquisition, LLC and VGX (the "Merger"). Upon the closing of the Merger, Inovio Acquisition, LLC assumed all of VGX's business, properties and assets and assumed its obligations, changed its name to VGX Pharmaceuticals, LLC, and remains a wholly-owned subsidiary of the Company, utilizing a single, integrated management team with Inovio. Inovio conducts its business through its U.S. wholly-owned subsidiaries, Genetronics, Inc and VGX Pharmaceuticals, LLC and a wholly-owned subsidiary in the Republic of Singapore, Inovio Asia Pte. Ltd., which may be a platform for future research and development efforts.

Inovio's principal executive offices are located at 450 Sentry Parkway East, Blue Bell, Pennsylvania 19422, and the telephone number is (267) 440-4200.

Table of Contents

Available Information

Our Internet website address is *www.inovio.com*. We make our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, Forms 3, 4, and 5 filed on behalf of directors and executive officers, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities and Exchange Act of 1934, available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (the "SEC"). You can also read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. You can obtain additional information about the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet site (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including us.

Employees

As of March 5, 2010, we employed 40 people on a full-time basis and 2 people under consulting and project employment agreements. Of the combined total, 20 were in product research, which includes research and development, quality assurance, clinical, engineering, and manufacturing, and 22 were in general and administrative, which includes corporate development, information technology, legal, investor relations, finance, and corporate administration. None of our employees are subject to collective bargaining agreements.

ITEM 1A. RISK FACTORS

You should carefully consider the following factors regarding information included in this Annual Report. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. If any of the following risks actually occur, our business, financial condition and operating results could be materially adversely affected.

Risks Related to Our Business and Industry

We have incurred losses since inception, expect to incur significant net losses in the foreseeable future and may never become profitable.

We have experienced significant operating losses to date; as of December 31, 2009 our accumulated deficit was approximately $177.2 million. We have generated limited revenues, primarily consisting of license and grant revenue, and interest income. We expect to continue to incur substantial additional operating losses for at least the next several years as we advance our clinical trials and research and development activities. We may never successfully commercialize our vaccine product candidates or electroporation-based DNA vaccine delivery technology and thus may never have any significant future revenues or achieve and sustain profitability.

We have limited sources of revenue and our success is dependent on our ability to develop our vaccine and other product candidates and electroporation equipment.

Other than a DNA therapy for food animals, whose sales have not been significant, we do not sell any products and may not have any other products commercially available for several years, if at all. Our ability to generate future revenues depends heavily on our success in:

- developing and securing U.S. and/or foreign regulatory approvals for our product candidates, including securing regulatory approval for conducting clinical trials with product candidates;
- developing our electroporation-based DNA delivery technology;

Table of Contents

commercializing any products for which we receive approval from the FDA and foreign regulatory authorities; and

developing a market for LifeTide and/or our other animal health product candidates.

Our electroporation equipment and product candidates will require extensive additional clinical study and evaluation, regulatory approval in multiple jurisdictions, substantial investment and significant marketing efforts before we generate any revenues from product sales. We are not permitted to market or promote our electroporation equipment and product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities. If we do not receive regulatory approval for and successfully commercialize any products, we will not generate any revenues from sales of electroporation equipment and products, and we may not be able to continue our operations.

None of our human vaccine product candidates has been approved for sale, and we may not develop commercially successful vaccine products.

Our human vaccine programs are in the early stages of research and development, and currently include vaccine product candidates in discovery, pre-clinical studies and Phase I clinical studies. There is limited data regarding the efficiency of DNA vaccines compared with conventional vaccines, and we must conduct a substantial amount of additional research and development before any regulatory authority will approve any of our vaccine product candidates. The success of our efforts to develop and commercialize our vaccine product candidates could fail for a number of reasons. For example, we could experience delays in product development and clinical trials. Our vaccine product candidates could be found to be ineffective or unsafe, or otherwise fail to receive necessary regulatory clearances. The products, if safe and effective, could be difficult to manufacture on a large scale or uneconomical to market, or our competitors could develop superior vaccine products more quickly and efficiently or more effectively market their competing products.

In addition, adverse events, or the perception of adverse events, relating to vaccines and vaccine delivery technologies may negatively impact our ability to develop commercially successful vaccine products. For example, pharmaceutical companies have been subject to claims that the use of some pediatric vaccines has caused personal injuries, including brain damage, central nervous system damage and autism. These and other claims may influence public perception of the use of vaccine products and could result in greater governmental regulation, stricter labeling requirements and potential regulatory delays in the testing or approval of our potential products.

We will need substantial additional capital to develop our electroporation-based DNA vaccine delivery technology and vaccine and other product candidates and for our future operations.

Conducting the costly and time consuming research, pre-clinical and clinical testing necessary to obtain regulatory approvals and bring our vaccine delivery technology and product candidates to market will require a commitment of substantial funds in excess of our current capital. Our future capital requirements will depend on many factors, including, among others: the progress of our current and new product development programs; the progress, scope and results of our pre-clinical and clinical testing; the time and cost involved in obtaining regulatory approvals; the cost of manufacturing our products and product candidates; the cost of prosecuting, enforcing and defending against patent infringement claims and other intellectual property rights; competing technological and market developments; and our ability and costs to establish and maintain collaborative and other arrangements with third parties to assist in potentially bringing our products to market.

Additional financing may not be available on acceptable terms, or at all. Domestic and international capital markets have been experiencing heightened volatility and turmoil, making it more difficult to raise capital through the issuance of equity securities. Furthermore, as a result of the recent volatility in the capital markets, the cost and availability of credit has been and may continue to be

Table of Contents

adversely affected by illiquid credit markets and wider credit spreads. Concern about the stability of the markets generally and the strength of counterparties specifically has led many lenders and institutional investors to reduce, and in some cases cease to provide, funding to borrowers. To the extent we are able to raise additional capital through the sale of equity securities or we issue securities in connection with another transaction, the ownership position of existing stockholders could be substantially diluted. If additional funds are raised through the issuance of preferred stock or debt securities, these securities are likely to have rights, preferences and privileges senior to our common stock and may involve significant fees, interest expense, restrictive covenants and the granting of security interests in our assets. Fluctuating interest rates could also increase the costs of any debt financing we may obtain. Raising capital through a licensing or other transaction involving our intellectual property could require us to relinquish valuable intellectual property rights and thereby sacrifice long term value for short-term liquidity.

Our failure to successfully address ongoing liquidity requirements would have a substantially negative impact on our business. If we are unable to obtain additional capital on acceptable terms when needed, we may need to take actions that adversely affect our business, our stock price and our ability to achieve cash flow in the future, including possibly surrendering our rights to some technologies or product opportunities, delaying our clinical trials or curtailing or ceasing operations.

If we are unable to attract and retain key personnel and advisors, it may adversely affect our ability to obtain financing, pursue collaborations or develop or market our product candidates.

To pursue our business strategy, we will need to attract and retain qualified scientific personnel and managers, including personnel with expertise in clinical trials, government regulation, manufacturing, marketing and other areas. Competition for qualified personnel is intense among companies, academic institutions and other organizations. If we are unable to attract and retain key personnel and advisors, it may negatively affect our ability to successfully develop, test, commercialize and market our products and product candidates.

We may not successfully integrate the VGX Pharmaceuticals business or realize all of the anticipated benefits of our acquisition of VGX.

On June 1, 2009, we completed our acquisition of VGX Pharmaceuticals, Inc. (the "Merger"). To be successful after the Merger, we need to combine and integrate the separate organizations and operations of the two companies. The combination of two independent companies is a complex, costly, and time-consuming process. As a result, we must devote significant management attention and resources to integrating the diverse business practices and operations of the two companies. We may encounter difficulties that could harm the combined businesses, adversely affect our financial condition, and cause our stock price to decline, including the following:

- We may have difficulty maintaining employee morale and retaining key managers and other employees as we take steps to combine the personnel and business cultures of two separate organizations into one, and to eliminate duplicate positions and functions;

- We may have difficulty preserving important relationships with others, such as strategic partners, customers, and suppliers, who may delay or defer decisions on agreements with us, or seek to change existing agreements with us, because of the Merger;

- We may encounter unanticipated issues in integrating complex information technology, communications, and other systems used by the separate companies; and

- Our integration efforts will result in significant costs, including costs relating to employees and facilities, and may result in substantially greater costs and expenses than currently anticipated, and we may identify liabilities of the combined business that were not anticipated.

Table of Contents

The integration process may divert the attention of our officers and management from day-to-day operations and disrupt our business, particularly if we encounter these types of difficulties. We have not previously completed a merger or acquisition comparable in size or scope to this transaction. The failure of the combined company to meet the challenges involved in the integration process could cause an interruption of, or a loss of momentum in, the activities of the combined company and could seriously harm our results of operations.

Even if the operations of the two organizations are integrated successfully, the combined company may not fully realize the expected benefits of the transaction, including the synergies, cost savings or growth opportunities, whether within the anticipated time frame, or any time in the future.

We face intense and increasing competition and many of our competitors have significantly greater resources and experience.

Many other companies are pursuing other forms of treatment or prevention for diseases that we target. For example, many of our competitors are working on developing and testing H5N1, H1N1 and universal influenza vaccines, and several H1N1 vaccines developed by our competitors have been approved for human use. Our competitors and potential competitors include large pharmaceutical and medical device companies and more established biotechnology companies. These companies have significantly greater financial and other resources and greater expertise than us in research and development, securing government contracts and grants to support research and development efforts, manufacturing, pre-clinical and clinical testing, obtaining regulatory approvals and marketing. This may make it easier for them to respond more quickly than us to new or changing opportunities, technologies or market needs. Many of these competitors operate large, well-funded research and development programs and have significant products approved or in development. Small companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical companies or through acquisition or development of intellectual property rights. Our potential competitors also include academic institutions, governmental agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for product and clinical development and marketing. Research and development by others may seek to render our technologies or products obsolete or noncompetitive.

If we lose or are unable to secure collaborators or partners, or if our collaborators or partners do not apply adequate resources to their relationships with us, our product development and potential for profitability will suffer.

We have entered into, or may enter into, distribution, co-promotion, partnership, sponsored research and other arrangements for development, manufacturing, sales, marketing and other commercialization activities relating to our products. For example, we have entered into a license and collaboration agreement with Merck. The amount and timing of resources applied by our collaborators are largely outside of our control.

Wyeth terminated one of our existing collaboration agreements. If any of our other current or future collaborators breaches or terminates our agreements, or fails to conduct our collaborative activities in a timely manner, our commercialization of products could be diminished or blocked completely. It is possible that collaborators will change their strategic focus, pursue alternative technologies or develop alternative products, either on their own or in collaboration with others. Further, we may be forced to fund programs that were previously funded by our collaborators, and we may not have, or be able to access, the necessary funding. The effectiveness of our partners, if any, in marketing our products will also affect our revenues and earnings.

We desire to enter into new collaborative agreements. However, we may not be able to successfully negotiate any additional collaborative arrangements and, if established, these relationships may not be

Table of Contents

scientifically or commercially successful. Our success in the future depends in part on our ability to enter into agreements with other highly-regarded organizations. This can be difficult due to internal and external constraints placed on these organizations. Some organizations may have insufficient administrative and related infrastructure to enable collaborations with many companies at once, which can extend the time it takes to develop, negotiate and implement a collaboration. Once news of discussions regarding possible collaborations are known in the medical community, regardless of whether the news is accurate, failure to announce a collaborative agreement or the entity's announcement of a collaboration with another entity may result in adverse speculation about us, resulting in harm to our reputation and our business.

Disputes could also arise between us and our existing or future collaborators, as to a variety of matters, including financial and intellectual property matters or other obligations under our agreements. These disputes could be both expensive and time-consuming and may result in delays in the development and commercialization of our products or could damage our relationship with a collaborator.

A small number of licensing partners and government contracts account for a substantial portion of our revenue.

We currently derive, and in the past we have derived, a significant portion of our revenue from a limited number of licensing partners and government grants and contracts. For example, during the year ended December 31, 2009, Wyeth accounted for approximately 49% of our consolidated revenue and our contract with the National Institute of Allergy and Infectious Diseases (NIAID) accounted for approximately 33% of our consolidated revenue. During the year ended December 31, 2008, Merck accounted for approximately 30% of our consolidated revenue. Wyeth terminated its agreement with us in July 2009, and we believe that development activities for Merck will be limited for the foreseeable future. If we fail to sign additional future contracts with major licensing partners and the government, if a contract is delayed or deferred, or if an existing contract expires or is cancelled and we fail to replace the contract with new business, our revenue would be adversely affected.

We have agreements with government agencies, which are subject to termination and uncertain future funding.

We have entered into agreements with government agencies, such as the NIAID and the US Army, and we intend to continue entering into these agreements in the future. Our business is partially dependent on the continued performance by these government agencies of their responsibilities under these agreements, including adequate continued funding of the agencies and their programs. We have no control over the resources and funding that government agencies may devote to these agreements, which may be subject to annual renewal and which generally may be terminated by the government agencies at any time.

Government agencies may fail to perform their responsibilities under these agreements, which may cause them to be terminated by the government agencies. In addition, we may fail to perform our responsibilities under these agreements. Many of our government agreements are subject to audits which may occur several years after the period to which the audit relates. If an audit identifies significant unallowable costs, we could incur a material charge to our earnings or reduction in our cash position. As a result, we may be unsuccessful entering or ineligible to enter into future government agreements.

Table of Contents

Our quarterly operating results may fluctuate significantly.

We expect our operating results to be subject to quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- variations in the level of expenses related to our electroporation equipment, product candidates or future development programs;
- merger integration expenses;
- addition or termination of clinical trials or funding support;
- any intellectual property infringement lawsuit in which we may become involved;
- any legal claims that may be asserted against us or any of our officers;
- regulatory developments affecting our electroporation equipment and product candidates or those of our competitors;
- our execution of any collaborative, licensing or similar arrangements, and the timing of payments we may make or receive under these arrangements; and
- if any of our products receives regulatory approval, the levels of underlying demand for our products.

If our quarterly operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Furthermore, any quarterly fluctuations in our operating results may, in turn, cause the price of our stock to fluctuate substantially. We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

If we are unable to obtain FDA approval of our products, we will not be able to commercialize them in the United States.

We need FDA approval prior to marketing our electroporation equipment and products in the United States. If we fail to obtain FDA approval to market our electroporation equipment and product candidates, we will be unable to sell our products in the United States, which will significantly impair our ability to generate any revenues.

This regulatory review and approval process, which includes evaluation of pre-clinical studies and clinical trials of our products as well as the evaluation of our manufacturing processes and our third-party contract manufacturers' facilities, is lengthy, expensive and uncertain. To receive approval, we must, among other things, demonstrate with substantial evidence from well-controlled clinical trials that our electroporation equipment and product candidates are both safe and effective for each indication for which approval is sought. Satisfaction of the approval requirements typically takes several years and the time needed to satisfy them may vary substantially, based on the type, complexity and novelty of the product. We do not know if or when we might receive regulatory approvals for our electroporation equipment and any of our product candidates currently under development. Moreover, any approvals that we obtain may not cover all of the clinical indications for which we are seeking approval, or could contain significant limitations in the form of narrow indications, warnings, precautions or contra-indications with respect to conditions of use. In such event, our ability to generate revenues from such products would be greatly reduced and our business would be harmed.

The FDA has substantial discretion in the approval process and may either refuse to consider our application for substantive review or may form the opinion after review of our data that our application is insufficient to allow approval of our electroporation equipment and product candidates. If the FDA does not consider or approve our application, it may require that we conduct additional clinical,

Table of Contents

pre-clinical or manufacturing validation studies and submit that data before it will reconsider our application. Depending on the extent of these or any other studies, approval of any applications that we submit may be delayed by several years, or may require us to expend more resources than we have available. It is also possible that additional studies, if performed and completed, may not be successful or considered sufficient by the FDA for approval or even to make our applications approvable. If any of these outcomes occur, we may be forced to abandon one or more of our applications for approval, which might significantly harm our business and prospects.

It is possible that none of our products or any product we may seek to develop in the future will ever obtain the appropriate regulatory approvals necessary for us or our collaborators to commence product sales. Any delay in obtaining, or an inability to obtain, applicable regulatory approvals would prevent us from commercializing our products, generating revenues and achieving and sustaining profitability.

Clinical trials involve a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.

Clinical testing is expensive and can take many years to complete, and its outcome is uncertain. Failure can occur at any time during the clinical trial process. The results of pre-clinical studies and early clinical trials of our products may not be predictive of the results of later-stage clinical trials. Results from one study may not be reflected or supported by the results of similar studies. Results of an animal study may not be indicative of results achievable in human studies. Human-use equipment and product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through pre-clinical studies and initial clinical testing. The time required to obtain approval by the FDA and similar foreign authorities is unpredictable but typically takes many years following the commencement of clinical trials, depending upon numerous factors. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change. We have not obtained regulatory approval for any human-use products.

Our products could fail to complete the clinical trial process for many reasons, including the following:

- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that our electroporation equipment and a product candidate is safe and effective for any indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate that our electroporation equipment and a product candidate's clinical and other benefits outweigh its safety risks;
- we may be unable to demonstrate that our electroporation equipment and a product candidate presents an advantage over existing therapies, or over placebo in any indications for which the FDA requires a placebo-controlled trial;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from pre-clinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a new drug application or other submission or to obtain regulatory approval in the United States or elsewhere;

Table of Contents

the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of us or third-party manufacturers with which we or our collaborators contract for clinical and commercial supplies; and

the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

Delays in the commencement or completion of clinical testing could result in increased costs to us and delay or limit our ability to generate revenues.

Delays in the commencement or completion of clinical testing could significantly affect our product development costs. We do not know whether planned clinical trials will begin on time or be completed on schedule, if at all. In addition, ongoing clinical trials may not be completed on schedule, or at all. The commencement and completion of clinical trials can be delayed for a number of reasons, including delays related to:

obtaining regulatory approval to commence a clinical trial;

adverse results from third party clinical trials involving gene based therapies and the regulatory response thereto;

reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

future bans or stricter standards imposed on gene based therapy clinical trials;

manufacturing sufficient quantities of our electroporation equipment and product candidates for use in clinical trials;

obtaining institutional review board, or IRB, approval to conduct a clinical trial at a prospective site;

slower than expected recruitment and enrolment of patients to participate in clinical trials for a variety of reasons, including competition from other clinical trial programs for similar indications;

retaining patients who have initiated a clinical trial but may be prone to withdraw due to side effects from the therapy, lack of efficacy or personal issues, or who are lost to further follow-up; and

collecting, reviewing and analyzing our clinical trial data.

Clinical trials may also be delayed as a result of ambiguous or negative interim results. In addition, a clinical trial may be suspended or terminated by us, the FDA, the IRB overseeing the clinical trial at issue, any of our clinical trial sites with respect to that site, or other regulatory authorities due to a number of factors, including:

failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols;

inspection of the clinical trial operations or trial sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;

unforeseen safety issues; and

lack of adequate funding to continue the clinical trial.

Table of Contents

If we experience delays in completion of, or if we terminate, any of our clinical trials, the commercial prospects for our electroporation equipment and our product candidates may be harmed and our ability to generate product revenues will be delayed. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of a product candidate. Further, delays in the commencement or completion of clinical trials may adversely affect the trading price of our common stock.

We and our collaborators rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we and our collaborators may not be able to obtain regulatory approval for or commercialize our product candidates.

We and our collaborators have entered into agreements with contract research organizations ("CROs") to provide monitors for and to manage data for our on-going clinical programs. We and the CROs conducting clinical trials for our electroporation equipment and product candidates are required to comply with current good clinical practices, or GCPs, regulations and guidelines enforced by the FDA for all of our products in clinical development. The FDA enforces GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or the CROs conducting clinical trials of our product candidates fail to comply with applicable GCPs, the clinical data generated in the clinical trials may be deemed unreliable and the FDA may require additional clinical trials before approving any marketing applications.

If any relationships with CROs terminate, we or our collaborators may not be able to enter into arrangements with alternative CROs. In addition, these third-party CROs are not our employees, and we cannot control whether or not they devote sufficient time and resources to our on-going clinical programs or perform trials efficiently. These CROs may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical studies or other drug development activities, which could harm our competitive position. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements, or for other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our financial results and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed. Cost overruns by or disputes with our CROs may significantly increase our expenses.

Even if our products receive regulatory approval, they may still face future development and regulatory difficulties.

Even if U.S. regulatory approval is obtained, the FDA may still impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies. This governmental oversight may be particularly strict with respect to gene based therapies. Our products will also be subject to ongoing FDA requirements governing the labeling, packaging, storage, advertising, promotion, recordkeeping and submission of safety and other post-market information. In addition, manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current good manufacturing practices, or cGMP, regulations. If we or a regulatory agency discover previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product, the manufacturer or us, including requiring withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates or the

Table of Contents

manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue Warning Letters or untitled letters;
- impose civil or criminal penalties;
- suspend regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve pending applications or supplements to applications filed by us;
- impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products or require us to initiate a product recall.

Even if our products receive regulatory approval in the United States, we may never receive approval or commercialize our products outside of the United States.

In order to market any electroporation equipment and product candidates outside of the United States, we must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the United States as well as other risks. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval could have the same adverse effects detailed above regarding FDA approval in the United States. Such effects include the risks that our product candidates may not be approved for all indications requested, which could limit the uses of our product candidates and have an adverse effect on their commercial potential or require costly, post-marketing follow-up studies.

We face potential product liability exposure and, if successful claims are brought against us, we may incur substantial liability.

The use of our electroporation equipment and DNA vaccine candidates in clinical trials and the sale of any products for which we obtain marketing approval expose us to the risk of product liability claims. Product liability claims might be brought against us by consumers, health care providers, pharmaceutical companies or others selling or otherwise coming into contact with our products. For example, pharmaceutical companies have been subject to claims that the use of some pediatric vaccines has caused personal injuries, including brain damage, central nervous system damage and autism, and these companies have incurred material costs to defend these claims. If we cannot successfully defend ourselves against product liability claims, we could incur substantial liabilities. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- decreased demand for our product candidates;
- impairment of our business reputation;

withdrawal of clinical trial participants;

costs of related litigation;

distraction of management's attention from our primary business;

Table of Contents

substantial monetary awards to patients or other claimants;

loss of revenues; and

inability to commercialize our products.

In the United States, the National Childhood Vaccine Injury Act of 1986 (the "Vaccine Act") was created to provide a federal no-fault system for compensating certain vaccine-related injuries or death by establishing a claims procedure involving the United States Court of Federal Claims and special masters. Litigation is pending before the Supreme Court of the United States to decide whether the Vaccine Act categorically preempts all design-defect claims against vaccine manufacturers, or whether instead the preemption of particular design-defect claims must be decided on a case-by-case basis. If the Supreme Court holds that preemption under the Vaccine Act must be decided on a case-by-case basis, vaccine manufacturers will likely be exposed to greater litigation risk from plaintiffs alleging injuries from vaccines.

We have obtained product liability insurance coverage for our clinical trials, but our insurance coverage may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive, and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. On occasion, large judgments have been awarded in class action lawsuits based on products that had unanticipated side effects. A successful product liability claim or series of claims brought against us could cause our stock price to decline and, if judgments exceed our insurance coverage, could adversely affect our business.

We currently have no marketing and sales organization and have no experience in marketing products. If we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell our products, we may not be able to generate product revenues.

We currently do not have a sales organization for the marketing, sales and distribution of our electroporation equipment and product candidates. In order to commercialize any products, we must build our marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. We contemplate establishing our own sales force or seeking third-party partners to sell our products. The establishment and development of our own sales force to market any products we may develop will be expensive and time consuming and could delay any product launch, and we may not be able to successfully develop this capability. We will also have to compete with other pharmaceutical and biotechnology companies to recruit, hire, train and retain marketing and sales personnel. To the extent we rely on third parties to commercialize our approved products, if any, we will receive less revenues than if we commercialized these products ourselves. In addition, we may have little or no control over the sales efforts of third parties involved in our commercialization efforts. In the event we are unable to develop our own marketing and sales force or collaborate with a third-party marketing and sales organization, we would not be able to commercialize our product candidates which would negatively impact our ability to generate product revenues.

If any of our products for which we receive regulatory approval does not achieve broad market acceptance, the revenues that we generate from their sales will be limited.

The commercial success of our electroporation equipment and product candidates for which we obtain marketing approval from the FDA or other regulatory authorities will depend upon the acceptance of these products by both the medical community and patient population. Coverage and reimbursement of our product candidates by third-party payors, including government payors, generally

Table of Contents

is also necessary for optimal commercial success. The degree of market acceptance of any of our approved products will depend on a number of factors, including:

- our ability to provide acceptable evidence of safety and efficacy;
- the relative convenience and ease of administration;
- the prevalence and severity of any actual or perceived adverse side effects;
- limitations or warnings contained in a product's FDA-approved labeling, including, for example, potential "black box" warnings
- availability of alternative treatments;
- pricing and cost effectiveness;
- the effectiveness of our or any future collaborators' sales and marketing strategies;
- our ability to obtain sufficient third-party coverage or reimbursement; and
- the willingness of patients to pay out of pocket in the absence of third-party coverage.

If our electroporation equipment and product candidates are approved but do not achieve an adequate level of acceptance by physicians, health care payors and patients, we may not generate sufficient revenue from these products, and we may not become or remain profitable. In addition, our efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may never be successful.

We are subject to uncertainty relating to reimbursement policies which, if not favorable to our product candidates, could hinder or prevent our products' commercial success.

Our ability to commercialize our electroporation equipment and product candidates successfully will depend in part on the extent to which governmental authorities, private health insurers and other third-party payors establish appropriate coverage and reimbursement levels for our product candidates and related treatments. As a threshold for coverage and reimbursement, third-party payors generally require that drug products have been approved for marketing by the FDA. Third-party payors also are increasingly challenging the effectiveness of and prices charged for medical products and services. We may not be able to obtain third-party coverage or reimbursement for our products in whole or in part.

Healthcare reform measures could hinder or prevent our products' commercial success.

Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in health care systems to contain health care costs and improve quality. While reform proposals often involve expanding coverage to more individuals, health care reform may also involve increased government price controls, additional regulatory mandates and other measures designed to lower medical and pharmaceutical costs.

The continuing efforts of the government, insurance companies, managed care organizations and other payors of health care services to contain or reduce costs of health care may adversely affect:

our ability to set a price we believe is fair for our products;

our ability to generate revenues and achieve or maintain profitability;

the availability of capital; and

our ability to obtain timely approval of our products.

Table of Contents

If we fail to comply with applicable healthcare regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected.

Certain federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights may be applicable to our business. We could be subject to healthcare fraud and abuse and patient privacy regulation by both the federal government and the states in which we conduct our business, without limitation. The laws that may affect our ability to operate include:

- the federal healthcare program Anti-Kickback Statute, which prohibits, among other things, persons from soliciting, receiving or providing remuneration, directly or indirectly, to induce either the referral of an individual, for an item or service or the purchasing or ordering of a good or service, for which payment may be made under federal healthcare programs such as the Medicare and Medicaid programs;

- federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which prohibits executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters and which also imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information;

- the Federal Food, Drug, and Cosmetic Act, which among other things, strictly regulates drug product marketing, prohibits manufacturers from marketing drug products for off-label use and regulates the distribution of drug samples; and

- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Additionally, the compliance environment is changing, with more states, such as California and Massachusetts, mandating implementation of compliance programs, compliance with industry ethics codes, and spending limits, and other states, such as Vermont, Maine, and Minnesota requiring reporting to state governments of gifts, compensation, and other remuneration to physicians. Federal legislation, the Physician Payments Sunshine Act of 2009, has been proposed and is moving forward in Congress. This legislation would require disclosure to the federal government of payments to physicians. These laws all provide for penalties for non-compliance. The shifting regulatory environment, along with the requirement to comply with multiple jurisdictions with different compliance and/or reporting requirements, increases the possibility that a company may run afoul of one or more laws.

If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Moreover, achieving and sustaining compliance with applicable federal and state privacy, security and fraud laws may prove costly.

Table of Contents

If we and the contract manufacturers upon whom we rely fail to produce our systems and product candidates in the volumes that we require on a timely basis, or fail to comply with stringent regulations, we may face delays in the development and commercialization of our electroporation equipment and product candidates.

We manufacture some components of our electroporation systems and utilize the services of contract manufacturers to manufacture the remaining components of these systems and our product supplies for clinical trials. The manufacture of our systems and product supplies requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers often encounter difficulties in production, particularly in scaling up for commercial production. These problems include difficulties with production costs and yields, quality control, including stability of the equipment and product candidates and quality assurance testing, shortages of qualified personnel, as well as compliance with strictly enforced federal, state and foreign regulations. If we or our manufacturers were to encounter any of these difficulties or our manufacturers otherwise fail to comply with their obligations to us, our ability to provide our electroporation equipment to our partners and products to patients in our clinical trials or to commercially launch a product would be jeopardized. Any delay or interruption in the supply of clinical trial supplies could delay the completion of our clinical trials, increase the costs associated with maintaining our clinical trial program and, depending upon the period of delay, require us to commence new trials at significant additional expense or terminate the trials completely.

In addition, all manufacturers of our products must comply with cGMP requirements enforced by the FDA through its facilities inspection program. These requirements include, among other things, quality control, quality assurance and the generation and maintenance of records and documentation. Manufacturers of our products may be unable to comply with these cGMP requirements and with other FDA, state and foreign regulatory requirements. We have little control over our manufacturers' compliance with these regulations and standards. A failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval. If the safety of any product is compromised due to our or our manufacturers' failure to adhere to applicable laws or for other reasons, we may not be able to obtain regulatory approval for or successfully commercialize our products, and we may be held liable for any injuries sustained as a result. Any of these factors could cause a delay of clinical trials, regulatory submissions, approvals or commercialization of our products, entail higher costs or result in our being unable to effectively commercialize our products. Furthermore, if our manufacturers fail to deliver the required commercial quantities on a timely basis, pursuant to provided specifications and at commercially reasonable prices, we may be unable to meet demand for our products and would lose potential revenues.

Our failure to successfully acquire, develop and market additional product candidates or approved products would impair our ability to grow.

We may acquire, in-license, develop and/or market additional products and product candidates. The success of these actions depends partly upon our ability to identify, select and acquire promising product candidates and products.

The process of proposing, negotiating and implementing a license or acquisition of a product candidate or approved product is lengthy and complex. Other companies, including some with substantially greater financial, marketing and sales resources, may compete with us for the license or acquisition of product candidates and approved products. We have limited resources to identify and execute the acquisition or in-licensing of third-party products, businesses and technologies and integrate them into our current infrastructure. Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts. We may not be able to acquire the rights to additional product candidates on terms that we find acceptable, or at all.

Table of Contents

In addition, future acquisitions may entail numerous operational and financial risks, including:

- exposure to unknown liabilities;
- disruption of our business and diversion of our management's time and attention to develop acquired products or technologies;
- incurrence of substantial debt or dilutive issuances of securities to pay for acquisitions;
- higher than expected acquisition and integration costs;
- increased amortization expenses;
- difficulty and cost in combining the operations and personnel of any acquired businesses with our operations and personnel;
- impairment of relationships with key suppliers or customers of any acquired businesses due to changes in management and ownership; and
- inability to retain key employees of any acquired businesses.

Further, any product candidate that we acquire may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA and applicable foreign regulatory authorities. All product candidates are prone to risks of failure typical of product development, including the possibility that a product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities.

Our business involves the use of hazardous materials and we and our third-party manufacturers must comply with environmental laws and regulations, which can be expensive and restrict how we do business.

Our and our third-party manufacturers' activities involve the controlled storage, use and disposal of hazardous materials, including the components of our product candidates and other hazardous compounds. We and our manufacturers are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous materials. In the event of an accident, state or federal authorities may curtail the use of these materials and interrupt our business operations. If we are subject to any liability as a result of our or our third-party manufacturers' activities involving hazardous materials, our business and financial condition may be adversely affected.

We may be subject to stockholder litigation, which would harm our business and financial condition.

We may have actions brought against us by stockholders relating to the Merger, past transactions, changes in our stock price or other matters. Any such actions could give rise to substantial damages, and thereby have a material adverse effect on our consolidated financial position, liquidity, or results of operations. Even if an action is not resolved against us, the uncertainty and expense associated with stockholder actions could harm our business, financial condition and reputation. Litigation can be costly, time-consuming and disruptive to business operations. The defense of lawsuits could also result in diversion of our management's time and attention away from business operations, which could harm our business.

Our results of operations and liquidity needs could be materially affected by market fluctuations and general economic conditions.

Our results of operations could be materially affected by economic conditions generally, both in the U.S. and elsewhere around the world. Recently, concerns over inflation, energy costs, geopolitical issues, the availability and cost of credit, the U.S. mortgage market and a declining residential real estate market in the U.S. have contributed to increased volatility and diminished expectations for the

38

Table of Contents

economy and the markets going forward. These factors, combined with volatile oil prices, declining business and consumer confidence and increased unemployment, have precipitated an economic recession. Domestic and international capital markets have also been experiencing heightened volatility and turmoil. These events and the continuing market upheavals may have an adverse effect on us. In the event of a continuing market downturn, our results of operations could be adversely affected. Our future cost of equity or debt capital and access to the capital markets could be adversely affected, and our stock price could decline. There may be disruption in or delay in the performance of our third-party contractors and suppliers. If our contractors, suppliers and partners are unable to satisfy their contractual commitments, our business could suffer. In addition, we maintain significant amounts of cash and cash equivalents at one or more financial institutions that are in excess of federally insured limits. Given the current instability of financial institutions, we may experience losses on these deposits.

Risks Related to Our Intellectual Property

It is difficult and costly to protect our intellectual property and our proprietary technologies, and we may not be able to ensure their protection.

Our commercial success will depend in part on obtaining and maintaining patent, trademark, trade secret, and other intellectual property protection relating to our electroporation equipment and product candidates, as well as successfully defending these intellectual property rights against third-party challenges.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the United States. The biotechnology patent situation outside the United States can be even more uncertain depending on the country. 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 intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our licensed patents, our patents or in third-party patents, nor can we predict the likelihood of our patents surviving a patent validity challenge.

The degree of future protection for our intellectual property rights is uncertain, because legal decision-making can be unpredictable, thereby often times resulting in limited protection, which may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- we, or the parties from whom we have acquired or licensed patent rights, may not have been the first to file the underlying patent applications or the first to make the inventions covered by such patents;
- the named inventors or co-inventors of patents or patent applications that we have licensed or acquired may be incorrect, which may give rise to disputes or invalidate the patents;
- others may independently develop similar or alternative technologies or duplicate any of our products or technologies that may not be covered by our patents, or they may design around our patents;
- pending patent applications may not result in issued patents;
- the issued patents covering our products and technologies may not provide us with any competitive advantages;
- the issued patents may be challenged and invalidated, or rendered unenforceable;
- the issued patents may be subject to reexamination, which could result in a narrowing of the scope of claims or cancellation of claims found unpatentable;

Table of Contents

- we may not develop or acquire additional proprietary technologies that are patentable;

- our trademarks may be invalid or subject to a third party's prior use; or

- our ability to enforce our patent rights will depend on our ability to detect infringement, and litigation to enforce patent rights may not be pursued due to significant financial costs, diversion of resources, and unpredictability of a favorable result or ruling.

We depend, in part, on our licensors and collaborators to protect a portion of our intellectual property rights. In such cases, our licensors and collaborators may be primarily or wholly responsible for the maintenance of patents and prosecution of patent applications relating to important areas of our business. If any of these parties fail to adequately protect these products with issued patents, our business and prospects would be harmed significantly.

We also may rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our trade secrets to competitors. Enforcing a claim that a third-party entity illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

If we or our licensors fail to obtain or maintain patent protection or trade secret protection for our product candidates or our technologies, third parties could use our proprietary information, which could impair our ability to compete in the market and adversely affect our ability to generate revenues and attain profitability.

If we are sued for infringing intellectual property rights of third parties, it will be costly and time consuming, and an unfavorable outcome in that litigation would have a material adverse effect on our business.

Other companies may have or may acquire intellectual property rights that could be enforced against us. If they do so, we may be required to alter our technologies, pay licensing fees or cease activities. If our products or technologies infringe the intellectual property rights of others, they could bring legal action against us or our licensors or collaborators claiming damages and seeking to enjoin any activities that they believe infringe their intellectual property rights.

Because patent applications can take many years to issue, there may be currently pending applications unknown to us or reissue applications that may later result in issued patents upon which our products or technologies may infringe. There could also be existing patents of which we are unaware that our products or technologies may infringe. In addition, if third parties file patent applications or obtain patents claiming products or technologies also claimed by us in pending applications or issued patents, we may have to participate in interference proceedings in the U.S. Patent and Trademark Office to determine priority of invention. If third parties file oppositions in foreign countries, we may also have to participate in opposition proceedings in foreign tribunals to defend the patentability of our filed foreign patent applications.

If a third party claims that we infringe its intellectual property rights, it could cause our business to suffer in a number of ways, including:

- we may become involved in time-consuming and expensive litigation, even if the claim is without merit, the third party's patent is ultimately invalid or we are ultimately found to have not infringed;

- we may become liable for substantial damages for past infringement if a court decides that our technologies infringe upon a third party's patent;

Table of Contents

- we may be ordered by a court to stop making, selling or licensing our products or technologies without a license from a patent holder, which may not be available on commercially acceptable terms, if at all, or which may require us to pay substantial royalties or grant cross-licenses to our patents; and

- we may have to redesign our products so that they do not infringe upon others' patent rights, which may not be possible or could require substantial investment or time.

If any of these events occur, our business could suffer and the market price of our common stock may decline.

Risks Related to Our Common Stock

The price of our common stock is expected to be volatile and an investment in our common stock could decline substantially in value.

In light of our small size and limited resources, as well as the uncertainties and risks that can affect our business and industry, our stock price is expected to be highly volatile and can be subject to substantial drops, with or even in the absence of news affecting our business. The following factors, in addition to the other risk factors described in this quarterly report, and the potentially low volume of trades in our common stock, may have a significant impact on the market price of our common stock, some of which are beyond our control:

- developments concerning any research and development, clinical trials, manufacturing, and marketing efforts or collaborations;

- fluctuating public or scientific interest in the potential for influenza pandemic or other applications for our vaccine or other product candidates;

- our announcement of significant acquisitions, strategic collaborations, joint ventures or capital commitments;

- fluctuations in our operating results

- announcements of technological innovations;

- new products or services that we or our competitors offer;

- the initiation, conduct and/or outcome of intellectual property and/or litigation matters;

- changes in financial or other estimates by securities analysts or other reviewers or evaluators of our business;

- conditions or trends in bio-pharmaceutical or other healthcare industries;

- regulatory developments in the United States and other countries;

- negative perception of gene based therapy;

changes in the economic performance and/or market valuations of other biotechnology and medical device companies;

additions or departures of key personnel;

sales or other transactions involving our common stock;

global unrest, terrorist activities, and economic and other external factors; and

catastrophic weather and/or global disease pandemics.

Table of Contents

The stock market in general has recently experienced relatively large price and volume fluctuations. In particular, the market prices of securities of smaller biotechnology and medical device companies have experienced dramatic fluctuations that often have been unrelated or disproportionate to the operating results of these companies. Continued market fluctuations could result in extreme volatility in the price of the common stock, which could cause a decline in the value of the common stock. In addition, price volatility may increase if the trading volume of our common stock remains limited or declines.

Anti-takeover provisions under our charter documents and Delaware law could delay or prevent a change of control which could limit the market price of our common stock.

Our amended and restated certificate of incorporation contains provisions that could delay or prevent a change of control of our company or changes in our board of directors that our stockholders might consider favorable. Some of these provisions include:

- the authority of our board of directors to issue shares of undesignated preferred stock and to determine the rights, preferences and privileges of these shares, without stockholder approval;
- all stockholder actions must be effected at a duly called meeting of stockholders and not by written consent; and
- the elimination of cumulative voting.

In addition, we are governed by the provisions of Section 203 of the Delaware General Corporate Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These and other provisions in our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors, including to delay or impede a merger, tender offer or proxy contest involving our company. Any delay or prevention of a change of control transaction or changes in our board of directors could cause the market price of our common stock to decline.

We have never paid cash dividends on our common stock and we do not anticipate paying dividends in the foreseeable future.

We have paid no cash dividends on our common stock to date, and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. In addition, the terms of any future debt or credit facility may preclude or limit our ability to pay any dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of potential gain for the foreseeable future.

Table of Contents

ITEM 2. PROPERTIES

We own no real property and have no plans to acquire any real property in the future. As of March 9, 2010, our corporate headquarters is located at 450 Sentry Parkway East in Blue Bell, Pennsylvania. Our corporate office in Blue Bell is leased space for 7,050 square feet and expires on April 30, 2010. On May 1, 2010, the office will relocate to 1787 Sentry Park West in Blue Bell, Pennsylvania. This new lease was signed on December 19, 2009 and runs through April 30, 2016. The annual rent for the approximately 6,442 square feet property will be $122,000 for the first year, $126,000 for the second year, $129,000 for the third year, $132,000 for the fourth year, $135,000 for the fifth year and $139,000 for the sixth year. At the end of the lease term, we have the option of renewing this lease for an additional three-year lease term at an annual rate equal to the fair market rental value of the property, as defined in the lease agreement.

The corporate office in San Diego is located at 11494 Sorrento Valley Road in San Diego, California. This lease originally ran through February 28, 2010 and was renewed and amended on July 17, 2009. Beginning on March 1, 2010, the remaining leased space is approximately 11,300 square feet and the lease will run through August 31, 2013. The annual rent based on the new lease terms is $160,000 in the first year, $196,000 in the second year, $223,000 for third year and $122,000 in the fourth year. At the end of the lease term, we have the option of renewing this lease for an additional five-year lease term at an annual rate equal to the fair market rental value of the property, as defined in the lease agreement.

In November 2007, our wholly owned subsidiary VGX Pharmaceuticals signed an amended facility lease for offices located at 2700 Research Forest Drive, The Woodlands, Montgomery County, Texas, for our research operations and our majority owned subsidiary VGX Animal Health, Inc. The leased space is for 13,185 square feet and expires on October 31, 2017. The annual rent for the leased space will be approximately $244,000 for the first year, $247,000 for the second year, $251,000 for the third year, $254,000 for the fourth year, $257,000 for the fifth year, $260,000 for the sixth year, $264,000 for the seventh year, $267,000 for the eighth year, $270,000 for the ninth year, and $274,000 for the tenth year. At the end of the lease term we have the option of renewing this lease for two additional terms of five years each at an amount equal to ninety-five percent of the market rental rate. In June 2008, a sublease agreement was executed between VGX Pharmaceuticals and our affiliated entity VGX International, Inc., for approximately 11,537 square feet of the total leased space through the end of the lease term. The affiliated entity will make monthly rent payments to VGX Pharmaceuticals of approximately 87.5% of the total lease expense.

We believe our current facilities will be adequate to meet our operating needs for the foreseeable future. Should we need additional space, we believe we will be able to secure additional space at commercially reasonable rates.

ITEM 3. LEGAL PROCEEDINGS

Not applicable.

ITEM 4. Reserved.

Table of Contents

PART II

ITEM 5. MARKET FOR COMPANY'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER REPURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is listed and traded on the NYSE Amex under the symbol "INO." The following table sets forth the quarterly high and low per share closing prices of our common stock for the two most recent fiscal years.

	Year Ended December 31,			
	2009		2008	
Period:	High	Low	High	Low
First Quarter	$ 0.56	$ 0.28	$ 1.45	$ 0.83
Second Quarter	$ 0.95	$ 0.31	$ 1.30	$ 0.78
Third Quarter	$ 3.18	$ 0.66	$ 1.13	$ 0.60
Fourth Quarter	$ 1.69	$ 1.04	$ 0.80	$ 0.16

As of March 3, 2010, we had approximately 240 common stockholders of record. This figure does not include beneficial owners who hold shares in nominee name. The closing price per share of our common stock on March 3, 2010 was $1.45, as reported on the NYSE Amex.

Dividends

The payment of any dividends on our common stock is within the discretion of our board of directors. We have not paid cash dividends on our common stock and the board of directors does not expect to declare cash dividends on the common stock in the foreseeable future.

Table of Contents

Performance Graph

The graph below matches Inovio Biomedical Corporation's cumulative 5-year total shareholder return on common stock with the cumulative total returns of the NYSE Amex Composite index and the S & P SuperCap Biotechnology index. The graph assumes that the value of the investment in our common stock and in each of the indexes (including reinvestment of dividends) was $100 on December 31, 2004 and tracks it through December 31, 2009.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Inovio Biomedical Corporation, The NYSE Amex Composite Index
And The S&P SuperCap Biotechnology Index

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*
$100 invested on 12/31/04 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

	12/04	12/05	12/06	12/07	12/08	12/09
Inovio Biomedical Corporation	100.00	57.61	83.50	23.35	13.20	28.93
NYSE Amex Composite	100.00	125.80	150.40	178.95	108.56	147.27
S&P SuperCap Biotechnology	100.00	119.44	120.73	113.99	124.45	117.67

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Table of Contents

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following table sets forth our selected consolidated financial data for the periods indicated, derived from consolidated financial statements prepared in accordance with U.S. generally accepted accounting principles.

	Year Ended December 31, 2009	Year Ended December 31, 2008	Year Ended December 31, 2007	Year Ended December 31, 2006	Year Ended December 31, 2005
Operations Data:					
License fee and milestone payments	$ 4,929,309	$ 791,401	$ 2,793,478	$ 1,337,105	$ 2,563,283
Revenue under collaborative research & development arrangements	125,996	1,077,967	1,854,303	962,207	1,492,145
Grants & miscellaneous revenue	4,064,806	228,264	159,948	1,168,866	1,411,825
Total revenues	9,120,111	2,097,632	4,807,729	3,468,178	5,467,253
Loss from operations	(13,957,755)	(13,658,464)	(15,898,420)	(13,346,194)	(15,506,970)
Interest & other income (expense)	(1,256,555)	692,842	4,693,977	1,002,252	210,118
Loss from investment in affiliated entity	(9,244,614)				
Net loss	(24,458,924)	(12,965,622)	(11,204,443)	(12,343,942)	(15,296,852)
Net loss attributable to non-controlling interest	47,439				
Imputed dividends on common stock					(8,329,112)
Imputed & declared dividends on preferred stock			(23,335)	(2,005,664)	(2,736,658)
Net loss attributable to Inovio Biomedical Corporation	$ (24,411,485)	$ (12,965,622)	$ (11,227,778)	$ (14,349,606)	$ (26,362,622)
Per common share basic & diluted:					
Net loss	$ (0.33)	$ (0.30)	$ (0.27)	$ (0.40)	$ (0.81)
Imputed dividends common stock					(0.44)
Imputed & declared dividends preferred stock				(0.06)	(0.14)
Net loss attributable to common stockholders	$ (0.33)	$ (0.30)	$ (0.27)	$ (0.46)	$ (1.39)
Balance Sheet Data:					
Cash and cash equivalents	$ 30,296,215	$ 14,115,281	$ 10,250,929	$ 8,321,606	$ 17,166,567
Short-term investments	10,397,530		16,999,600	14,700,000	
Long-term investments		9,169,471			
Total assets	80,628,917	38,987,028	39,775,021	35,949,615	28,978,954
Current liabilities	19,350,038	14,709,582	3,354,499	6,859,722	4,002,280
Accumulated deficit	(177,224,433)	(152,812,948)	(139,847,326)	(128,619,548)	(114,269,942)
Total stockholders equity	61,184,947	19,106,147	31,034,754	18,151,864	23,470,748

Table of Contents

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

This report contains forward-looking statements. These statements relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential" or "continue," the negative of such terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Moreover, neither we, nor any other person, assume responsibility for the accuracy and completeness of the forward-looking statements. We are under no obligation to update any of the forward-looking statements after the filing of this Annual Report to conform such statements to actual results or to changes in our expectations.

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes and other financial information appearing elsewhere in this Annual Report. Readers are also urged to carefully review and consider the various disclosures made by us which attempt to advise interested parties of the factors which affect our business, including without limitation the disclosures made in Item 1A of Part I of this Annual Report under the Caption "Risk Factors."

Risk factors that could cause actual results to differ from those contained in the forward-looking statements include but are not limited to: our history of losses; our lack of products that have received regulatory approval; uncertainties inherent in clinical trials and product development programs, including but not limited to the fact that pre-clinical and clinical results may not be indicative of results achievable in other trials or for other indications, that results from one study may not necessarily be reflected or supported by the results of other similar studies, that results from an animal study may not be indicative of results achievable in human studies, that clinical testing is expensive and can take many years to complete, that the outcome of any clinical trial is uncertain and failure can occur at any time during the clinical trial process, and that our electroporation technology and DNA vaccines may fail to show the desired safety and efficacy traits in clinical trials; the availability of funding; the ability to manufacture vaccine candidates; the availability or potential availability of alternative therapies or treatments for the conditions targeted by us or our collaborators, including alternatives that may be more efficacious or cost-effective than any therapy or treatment that we and our collaborators hope to develop; whether our proprietary rights are enforceable or defensible or infringe or allegedly infringe on rights of others or can withstand claims of invalidity; and the impact of government healthcare proposals.

Overview

Inovio Biomedical Corporation (the "Company" or "Inovio") is engaged in the discovery, development, and delivery of a new generation of vaccines, called DNA vaccines, focused on cancers and infectious diseases. Our SynCon technology enables the design of "universal" DNA-based vaccines capable of providing cross-protection against new, unmatched strains of pathogens such as influenza. Our electroporation DNA delivery technology uses brief, controlled electrical pulses to increase cellular DNA vaccine uptake. Initial human data has shown this method can safely and significantly increase gene expression and immune responses. Our clinical programs include human papillomavirus ("HPV")/cervical cancer (therapeutic), avian influenza (preventative) and human immunodeficiency virus ("HIV") vaccines. We are advancing preclinical research for a universal seasonal/pandemic influenza vaccine. Our partners and collaborators include University of Pennsylvania, National Microbiology Laboratory of the Public Health Agency of Canada, NIAID (NIH), Merck, Tripep, University of Southampton, and HIV Vaccines Trial Network.

Table of Contents

On June 1, 2009, we completed our acquisition of VGX Pharmaceuticals, Inc. ("VGX") whereby VGX became a wholly-owned subsidiary of Inovio (the "Merger"). We believe the Merger advances our ability to play a leadership role in the discovery, development, and delivery of DNA vaccines.

Recent Developments

On March 24, 2010, we entered into a Collaboration and License Agreement (the "Agreement") with VGX International ("VGX Int'l"). Under the Agreement, we granted VGX Int'l an exclusive license to Inovio's SynCon™ universal influenza vaccine delivered with electroporation to be developed in certain countries in Asia (the "Product").

As consideration for the license granted to VGX Int'l, we will receive a research and development initiation fee, as well as research support, annual license maintenance fees and royalties on net product sales. In addition, contingent upon achievement of clinical and regulatory milestones, we will receive development payments over the term of the Agreement. The Agreement also provides Inovio with exclusive rights to supply devices for clinical and commercial purposes (including single use components) to VGX Int'l for use in the Product.

The term of the Agreement commenced upon execution and will extend on a country by country basis until the last to expire of all Royalty Periods for the territory (as such term is defined in the Agreement) for any Product in that country, unless the Agreement is terminated earlier in accordance with its provisions as a result of breach, by mutual agreement, or by VGX Int'l right to terminate without cause upon prior written notice.

In January 2010, we announced that the Company expanded its existing license agreement with the University of Pennsylvania, adding exclusive worldwide licenses for technology and intellectual property for novel DNA vaccines against pandemic influenza, Chikungunya, and foot-and-mouth disease. The amendment also encompasses new chemokine and cytokine molecular adjuvant technologies. The technology was developed in the University of Pennsylvania laboratory of Professor David B. Weiner, a pioneer in the field of DNA vaccines, and chairman of Inovio's scientific advisory board. Under the terms of the original license agreement completed in 2007, the Company obtained exclusive worldwide rights to develop multiple DNA plasmids and constructs with the potential to treat and/or prevent HIV, HCV, HPV and influenza and included molecular adjuvants. These prior and most recent agreements and amendments provide for royalty payments, based on future sales, to the University of Pennsylvania.

On July 13, 2009, we received written notice from Wyeth Pharmaceuticals ("Wyeth") of the termination without cause of the Collaboration and License Agreement, dated as of November 2, 2006 (the "Agreement"). The termination is effective ninety (90) days from our receipt of the written notice of termination. Under the Agreement, we had granted Wyeth a worldwide non-exclusive license to use our electroporation technology for delivery of therapeutic DNA vaccines against certain targets.

Revenue under the Agreement had been a material portion of our revenue from collaborative research and development arrangements in past periods. We believe that termination of the Agreement enables us to further develop our clinical programs on an exclusive basis.

On July 29, 2009, we entered into a securities purchase agreement with certain institutional investors relating to the sale and issuance of (a) 11,111,110 shares of common stock and (b) warrants to purchase a total of 2,777,776 shares of common stock with an exercise price of $3.50 per share, for an aggregate purchase price of approximately $30 million. The warrants were exercisable beginning six months after issuance and expire six months from the date they are first exercisable. The shares of common stock and warrants were sold in units, consisting of one share of common stock and a warrant to purchase 0.25 of a share of common stock, at a purchase price of $2.70 per unit. The offering closed on July 31, 2009. We received proceeds from the transaction of approximately $28.4 million, after deducting offering expenses.

Table of Contents

As of December 31, 2009, we had an accumulated deficit of $177.2 million. We expect to continue to incur substantial operating losses in the future due to our commitment to our research and development programs, the funding of preclinical studies, clinical trials and regulatory activities and the costs of general and administrative activities.

Critical Accounting Policies

The SEC defines critical accounting policies as those that are, in management's view, important to the portrayal of our financial condition and results of operations and require management's judgment. Our discussion and analysis of our financial condition and results of operations is based on our audited consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses. We base our estimates on experience and on various assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from those estimates. Our critical accounting policies include:

Revenue Recognition. License fees are comprised of initial fees and milestone payments derived from collaborative licensing arrangements. We continue to recognize non-refundable milestone payments upon the achievement of specified milestones upon which we have earned the milestone payment, provided the milestone payment is substantive in nature and the achievement of the milestone was not reasonably assured at the inception of the agreement. We defer payments for milestone events which are reasonably assured and recognize them ratably over the minimum remaining period of our performance obligations. Payments for milestones which are not reasonably assured are treated as the culmination of a separate earnings process and are recognized as revenue when the milestones are achieved.

We have adopted a strategy of co-developing or licensing our gene delivery technology for specific genes or specific medical indications. Accordingly, we have entered into collaborative research and development agreements and have received funding for pre-clinical research and clinical trials. Payments under these agreements, which are non-refundable, are recorded as revenue as the related research expenditures are incurred pursuant to the terms of the agreements and provided collectability is reasonably assured.

We receive non-refundable grants under available government programs. Government grants towards current expenditures are recorded as revenue when there is reasonable assurance that we have complied with all conditions necessary to receive the grants, collectability is reasonably assured, and as the expenditures are incurred.

Research and development expenses. Since our inception, virtually all of our activities have consisted of research and development efforts related to developing our electroporation technologies and DNA vaccines. Research and development expenses consist of expenses incurred in performing research and development activities including salaries and benefits, facilities and other overhead expenses, clinical trials, contract services and other outside expenses. Research and development expenses are charged to operations as they are incurred.

Valuation of Goodwill and Intangible Assets. Goodwill represents the excess of acquisition cost over the fair value of the net assets of acquired businesses. Intangible assets are amortized over their estimated useful lives ranging from 5 to 18 years. Acquired intangible assets are still being developed for the future economic viability contemplated at the time of acquisition. We are concurrently conducting Phase I and pre-clinical trials using the acquired intangibles, and we have entered into certain significant licensing agreements for use of these acquired intangibles.

Table of Contents

Historically we have recorded patents at cost and amortized these costs using the straight-line method over the expected useful lives of the patents or 17 years, whichever is less. Patent cost consists of the consideration paid for patents and related legal costs. Effective June 1, 2009, in connection with our acquisition of VGX Pharmaceuticals, all new patent costs will be expensed as incurred. Patent cost currently capitalized will continue to be amortized over the expected life of the patent. The effect of this change was immaterial to prior periods. License costs are recorded based on the fair value of consideration paid and amortized using the straight-line method over the shorter of the expected useful life of the underlying patents or the term of the related license agreement. As of December 31, 2009, our intangible assets resulting from the acquisition of VGX and Inovio AS, and additional intangibles including previously capitalized patent costs and license costs, net of accumulated amortization, totaled $13.0 million.

The determination of the value of such intangible assets requires management to make estimates and assumptions that affect our consolidated financial statements. We assess potential impairments to intangible assets when there is evidence that events or changes in circumstances indicate that the carrying amount of an asset may not be recovered. Our judgments regarding the existence of impairment indicators and future cash flows related to intangible assets are based on operational performance of our acquired businesses, market conditions and other factors. If impairment is indicated, we reduce the carrying value of the intangible asset to fair value. While our current and historical operating and cash flow losses are potential indicators of impairment, we believe the future cash flows to be received from our intangible assets will exceed the intangible assets' carrying value, and accordingly, we have not recognized any impairment losses through December 31, 2009.

Although there are inherent uncertainties in this assessment process, the estimates and assumptions we use are consistent with our internal planning. If these estimates or their related assumptions change in the future, we may be required to record an impairment charge on all or a portion of our goodwill and intangible assets. Furthermore, we cannot predict the occurrence of future impairment-triggering events nor the impact such events might have on our reported asset values. Future events could cause us to conclude that impairment indicators exist and that goodwill or other intangible assets associated with our acquired businesses are impaired. Any resulting impairment loss could have an adverse impact on our results of operations.

Purchase Price Allocation. The purchase price allocation for acquisitions requires extensive use of accounting estimates and judgments to allocate the purchase price to the identifiable tangible and intangible assets acquired, including in-process research and development, and liabilities assumed based on their respective fair values. Additionally, we must determine whether an acquired entity is considered to be a business or a set of net assets, because a portion of the purchase price can only be allocated to goodwill in a business combination.

Stock-based Compensation. Stock-based compensation cost is estimated at the grant date based on the fair-value of the award and is recognized as an expense ratably over the requisite service period of the award. Determining the appropriate fair-value model and calculating the fair value of stock-based awards at the grant date requires considerable judgment, including estimating stock price volatility, expected option life and forfeiture rates. We develop our estimates based on historical data. If factors change and we employ different assumptions in future periods, the compensation expense that we record may differ significantly from what we have recorded in the current period. A small change in the estimates used may have a relatively large change in the estimated valuation. We use the Black-Scholes pricing model to value stock option awards. We recognize compensation expense using the straight-line amortization method.

Auction Rate Securities and Auction Rate Securities Rights. We account for Auction Rate Securities ("ARS") under the authoritative guidance for certain investments in debt and equity securities and fair value measurements. We account for ARS Rights using the fair value option for financial assets and

Table of Contents

financial liabilities. Our investments in ARS and our ARS Rights are recorded at their estimated fair value as there is currently no liquid market which indicates value. We have used a discounted cash flow model to determine the estimated fair value of our investment in ARS and our ARS Rights as of December 31, 2009. The assumptions used in preparing the discounted cash flow model include estimates for interest rates, timing and amount of cash flows and expected holding period of the ARS and ARS Rights. Changes in the estimated fair value of the ARS and ARS Rights are reflected in the consolidated statement of operations as "Other income/(expense), net."

Registered Common Stock Warrants. We account for registered common stock warrants pursuant to the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. We classify registered warrants on the consolidated balance sheet as a current liability which is revalued at each balance sheet date subsequent to the initial issuance. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment, including estimating stock price volatility and expected warrant life. We develop our estimates based on historical data. A small change in the estimates used may have a relatively large change in the estimated valuation. We use the Black-Scholes pricing model to value the registered warrants. Changes in the fair market value of the warrants are reflected in the consolidated statement of operations as "Other income/(expense), net."

Recent Accounting Pronouncements

Information regarding recent accounting pronouncements is contained in Note 3 to the Consolidated Financial Statements, included elsewhere in this report.

Table of Contents

Results of Operations

Comparison of Years Ended December 31, 2009 and 2008

The audited consolidated financial data for the years ended December 31, 2009 and December 31, 2008 is presented in the following table and the results of these two periods are used in the discussion thereafter.

	December 31, 2009	December 31, 2008	Increase/ (Decrease) $	Increase/ (Decrease) %
Revenues:				
License fee and milestone payments	$ 4,929,309	$ 791,401	$ 4,137,908	523%
Revenue under collaborative research and development arrangements	125,996	1,077,967	(951,971)	(88)
Grants and miscellaneous revenue	4,064,806	228,264	3,836,542	1,681
Total revenues	9,120,111	2,097,632	7,022,479	335
Operating expenses:				
Research and development	9,408,457	5,750,494	3,657,963	64
General and administrative	13,669,409	10,005,602	3,663,807	37
Total operating expenses	23,077,866	15,756,096	7,321,770	47
Loss from operations	(13,957,755)	(13,658,464)	(299,291)	(2)
Other income/(expense), net	(1,258,848)	49,006	(1,307,854)	(2,669)
Interest income, net	2,293	643,836	(641,543)	(100)
Loss from investment in affiliated entity	(9,244,614)		(9,244,614)	(100)
Net loss	(24,458,924)	(12,965,622)	(11,493,302)	(89)
Net loss attributable to non-controlling interest	47,439		47,439	100
Net loss attributable to Inovio Biomedical Corporation	$ (24,411,485)	$ (12,965,622)	$ (11,445,863)	(88)%

Revenue

Our revenue consists of license fees, milestone payments, and amounts received from collaborative research and development arrangements and grants.

Our total revenue increased $7.0 million or 335% for the year ended December 31, 2009, as compared to the year ended December 31, 2008 due to increases in license fee revenues and increase in grants and miscellaneous revenue, offset by a decrease in revenues under collaborative research and development arrangements.

The $4.1 million increase in license fees and milestone payments for the year ended December 31, 2009 as compared to 2008 was primarily due to the acceleration of $4.1 million of deferred revenues recognized as a result of the cancellation of the Wyeth collaboration and licensing agreement in July 2009. Revenue from other license agreements remained consistent during the years ended December 31, 2009 and 2008.

The $952,000 decrease in revenue under collaborative research and development arrangements during the year ended December 31, 2009 as compared to 2008 was due to a decrease in Merck collaborative research billings of $506,000, as well as no billings to Wyeth in 2009 from our collaborative agreement related to the commercialization of the Elgen device. Revenues from collaborative research and development arrangements are expected to continue to decline, as Wyeth terminated its collaboration and licensing agreement as of July 2009 and under our research and

Table of Contents

collaboration agreement with Merck, we have provided the majority of the required device development for use in their clinical trials and we believe that development activities will be limited until trial results are obtained.

The $3.8 million increase in grant and miscellaneous revenue for the year ended December 31, 2009 as compared to 2008 was primarily due to revenues recognized from our contract with the National Institute of Allergy and Infectious Diseases ("NIAID") and the PATH Malaria Vaccine Initiative ("MVI") of $3.0 million and $440,000, respectively, since June 1, 2009, and higher revenues recognized from the Department of Defense ("U.S. Army") grant of $373,000. The NIAID contract is for five years with two one-year options (period of performance is September 30, 2008 - September 29, 2015 including the two options). The value for the five years is $21.3 million with option years six and seven valued at $1.2 million and $1.1 million, respectively, for a total potential value of $23.6 million, and will fund research and development for HIV DNA-based vaccines delivered via our proprietary electroporation system. PATH is an international nonprofit organization funded by private donors. We have a research program and agreement with the PATH MVI to evaluate in a preclinical feasibility study our SynCon DNA vaccine development platform to target antigens from *Plasmodium* species and deliver them intradermally using the CELLECTRA® electroporation device. The agreement with MVI is for $685,000 and will run through February 2010. The U.S. Army grant has a total value of $933,000, will fund research and development of DNA-based vaccines delivered via our proprietary electroporation system and will run through May 2010. This project is focused on identifying DNA vaccine candidates with the potential to provide rapid, robust immunity to protect against bio-warfare and bioterror attacks. During the years ended December 31, 2009 and 2008, we recognized revenue of $57,000 and $135,000, respectively, attributable to the operations of our Norwegian subsidiary, Inovio AS, which amounted to approximately 1% and 6% of our total revenue. Inovio AS' revenue primarily consists of amounts received from grants and licensing revenue. Inovio AS was dissolved in December 2009. Operating activities for Inovio AS are now conducted in the United States.

Research and Development Expenses

The $3.7 million increase in research and development expenses for the year ended December 31, 2009 as compared to the year ended December 31, 2008, was primarily due to higher costs related to work performed for the NIAID contract as well as higher other outside services and contract labor expenses related to research and development projects. The increase was partially offset by a decrease in research and development expenses incurred by our Norwegian subsidiaries as these entities were winding down operations during 2009, as well as a decrease in outside lab testing and lab and engineering supply purchases. Research and development expenses attributable to Inovio AS were $311,000 and $751,000 for the years ended December 31, 2009 and 2008, respectively.

Our research and development activities reflect our efforts to advance our products through the various stages of product development. The expenditures that will be necessary to execute our development plans are subject to numerous uncertainties, which may affect our research and development expenditures and capital resources. Even if earlier results are positive, we may obtain different results in later stages of development, which could impact our development expenditures for a particular product. Although we spend a considerable amount of time planning our development activities, we may be required to alter our plan based on new circumstances or events. Any deviation from our plan may require us to incur additional expenditures or accelerate or delay the timing of our development spending.

Table of Contents

General and Administrative Expenses

General and administrative expenses include business development expenses and the amortization of intangible assets. The $3.7 million increase in general and administrative expenses for the year ended December 31, 2009, as compared to the year ended December 31, 2008, was primarily due to higher legal and related fees associated with the Merger and other corporate matters. We expect these legal fees to decrease in future periods. Upon closing of the Merger, we also incurred costs that would have not been incurred in the prior year, such as Merger related compensation to key employees, higher amortization expense as a result of the intangible assets that were acquired from VGX, and higher employee stock based compensation due to the accelerated vesting of all Inovio stock options. The increase was also attributed to higher accounting, audit and valuation fees related to the Merger and the combined company. These increases were partially offset by a decrease in outside consulting services related to partnering our SECTA therapy program and other corporate advisory services. Additionally, as a result of the dissolution of our Norwegian subsidiaries, general and administrative expenses were offset by the reversal of an $887,000 deferred tax liability previously recorded in connection with the original acquisition of the Norwegian entity. General and administrative costs attributable to Inovio AS were $341,000 and $376,000 for the years ended December 31, 2009 and 2008, respectively.

Stock-based Compensation.

Stock-based compensation cost is measured at the grant date, based on the fair value of the award reduced by estimated forfeitures, and is recognized as expense over the employee's requisite service period. Total compensation cost for our stock plans for the years ended December 31, 2009 and 2008 was $1.8 million and $1.0 million, of which $595,000 and $286,000 was included in research and development expenses and $1.2 million and $746,000 was included in general and administrative expenses, respectively. At December 31, 2009, there was $1.4 million of total unrecognized compensation cost, related to unvested stock options, which we expect to recognize over a weighted-average period of 2.5 years, as compared to $752,000 for the year ended December 31, 2008. Total stock-based compensation for options granted to non-employees for the years ended December 31, 2009 and 2008 was $339,000 and $58,000, respectively.

Other Income (Expense), net

We recorded other income (expense), net, for the years ended December 31, 2009 and 2008 of $(1.3 million) and $49,000, respectively. The increase in other income (expense), net, is primarily due to the revaluation of registered common stock warrants issued by us in October 2006, August 2007 and July 2009. We revalue the warrants at each balance sheet date to fair value. If unexercised, the warrants will expire at various dates between August 2010 and July 2014.

Interest Income (Expense), net

Interest income (expense), net, for the years ended December 31, 2009 and 2008 was $2,000 and $644,000, respectively. The decrease in interest income (expense), net, for the year ended December 31, 2009 as compared to the year ended December 31, 2008, was primarily due to a lower average cash and investments balance and lower average interest rate during the year, as well as an increase in interest expense related to the convertible debt obtained in connection with the Merger. This debt was converted to common stock in August 2009.

Gain (Loss) from investment in affiliated entity

Gain (loss) is a result of the change in the investment fair market value as of December 31, 2009.

Table of Contents

Income Taxes

Since inception, we have incurred operating losses and accordingly have not recorded a provision for income taxes for any of the periods presented. As of December 31, 2009, we had net operating loss carry forwards for federal, California and Pennsylvania income tax purposes of approximately $106.2 million, $67.5 million and $33.9 million, respectively. We also had federal and California research and development tax credits of approximately $2.6 million and $1.6 million, respectively. If not utilized, the net operating losses and credits will begin to expire in 2013. Utilization of net operating losses and credits are subject to a substantial annual limitation due to ownership change limitations provided by the Internal Revenue Code of 1986, as amended.

Comparison of Years Ended December 31, 2008 and 2007

The audited consolidated financial data for the years ended December 31, 2008 and December 31, 2007 is presented in the following table and the results of these two periods are used in the discussion thereafter.

	December 31, 2008	December 31, 2007	Increase/ (Decrease) $	Increase/ (Decrease) %
Revenues:				
License fee and milestone payments	$ 791,401	$ 2,793,478	$ (2,002,077)	(72)%
Revenue under collaborative research and development arrangements	1,077,967	1,854,303	(776,336)	(42)
Grants and miscellaneous revenue	228,264	159,948	68,316	43
Total revenues	2,097,632	4,807,729	(2,710,097)	(56)
Operating expenses:				
Research and development	5,750,494	9,625,947	(3,875,453)	(40)
General and administrative	10,005,602	11,080,202	(1,074,600)	(10)
Total operating expenses	15,756,096	20,706,149	(4,950,053)	(24)
Loss from operations	(13,658,464)	(15,898,420)	(2,239,956)	(14)
Other income, net	49,006	3,421,580	(3,372,574)	(99)
Interest income, net	643,836	1,272,397	(628,561)	(49)
Net loss	(12,965,622)	(11,204,443)	(1,761,179)	(16)
Imputed and declared dividends on preferred stock		(23,335)	23,335	100
Net loss attributable to common stockholders	$ (12,965,622)	$ (11,227,778)	$ (1,737,844)	(15)%

Revenue

Our revenue consists of license fees, milestone payments, and amounts received from collaborative research and development arrangements and grants.

Our total revenue decreased $2.7 million or 56% for the year ended December 31, 2008, as compared to the year ended December 31, 2007 due to decreases in milestone payments and revenue under collaborative research and development arrangements, offset partially by an increase in grants and other revenue.

The $2.0 million decrease in license fees and milestone payments for the year ended December 31, 2008, as compared to fiscal 2007 was primarily due to the recognition of a $2.0 million milestone payment during the year ended December 31, 2007, resulting from the achievement of a clinical

Table of Contents

milestone by Merck for the filing of an investigational new drug application for the second Merck product in a major market. Under our agreement with Merck, we may receive additional future milestone payments linked to the successful development of a product. Revenue from other license agreements remained consistent during the years ended December 31, 2008 and 2007.

The $776,000 decrease in revenue under collaborative research and development arrangements during the year ended December 31, 2008, as compared to the year ended December 31, 2007, was due to an $368,000 decrease in Wyeth billings based on our collaborative agreement related to the commercialization of the Elgen device, and $408,000 in lower Merck collaborative research billings during 2008 as compared to 2007. Billings from research and development work performed pursuant to the Wyeth and Merck agreements were recorded as revenue as the related research expenditures incurred.

The $68,000 increase in grant and miscellaneous revenue was due to more revenue recognized from U.S. Army grants during fiscal 2008 as compared to fiscal 2007. On September 26, 2008, we received a new contract for $933,000 from the Department of Defense (U.S. Army) to continue research and development of DNA-based vaccines delivered via our proprietary electroporation system. The contract, titled "Design and Engineering of the Elgen Gene Delivery System for Screening and Validation of Vaccine Candidates of Military Relevance," will run through May 2010. This project is focused on identifying DNA vaccine candidates with the potential to provide rapid, robust immunity to protect against bio-warfare and bioterror attacks.

During the years ended December 31, 2008 and 2007, we recognized revenue of $135,000 and $159,000, respectively, attributable to the operations of our Norwegian subsidiary, Inovio AS, which amounted to approximately 6% and 3% of our total revenue. Inovio AS' revenue primarily consists of amounts received from grants and licensing revenue.

Research and Development Expenses

The $3.9 million decrease in research and development expenses for the year ended December 31, 2008, as compared to fiscal 2007, was primarily due to a decrease in clinical trial expenses associated with patient enrollment, clinical site costs, data collection and monitoring costs related to the discontinued SECTA clinical trials. Additional decreases are associated with reduced use of consulting and advisory services, offset by higher labor and other development costs associated with expansion of in-house engineering and research expertise. Research and development expenses attributable to Inovio AS were $751,000 and $697,000 for the years ended December 31, 2008 and 2007, respectively.

General and Administrative Expenses

General and administrative expenses include business development expenses and the amortization of intangible assets. The $1.1 million decrease in general and administrative expenses for the year ended December 31, 2008, as compared to fiscal 2007, was primarily due to a decrease in outside consulting and advisory services related to partnering our SECTA therapy program as well as a decrease in personnel costs and employee stock-based compensation expense, offset by increased legal fees related to the execution of the definitive merger agreement with VGX as well as other corporate matters. General and administrative costs attributable to Inovio AS were $376,000 and $309,000 for the years ended December 31, 2008 and 2007, respectively.

Stock-based Compensation.

Stock-based compensation cost is measured at the grant date, based on the fair value of the award reduced by estimated forfeitures, and is recognized as expense over the employee's requisite service period. Total compensation cost for our stock plans for the years ended December 31, 2008 and 2007 was $1.0 million and $1.6 million, of which $286,000 and $354,000 was included in research and

Table of Contents

development expenses and $746,000 and $1.2 million was included in general and administrative expenses, respectively. At December 31, 2008, there was $752,000 of total unrecognized compensation cost, related to unvested stock options, which we expect to recognize over a weighted-average period of one year, as compared to $1.3 million for the year ended December 31, 2007. Total stock-based compensation for options granted to non-employees for the years ended December 31, 2008 and 2007 was $58,000 and $119,000, respectively.

Other Income/(Expense)

We recorded other income (expense) for the years ended December 31, 2008 and 2007 of $49,000 and $3.4 million, respectively. The decrease in other income (expense) is primarily due to the revaluation of registered common stock warrants issued by us in October 2006 and August 2007. We revalue the warrants at each balance sheet date to fair value. If unexercised, the warrants will expire in October 2011 and August 2012, respectively.

Interest Income/(Expense)

Interest income (expense) for the years ended December 31, 2008 and 2007 was $644,000 and $1.3 million, respectively. The decrease in interest and other income for fiscal 2008, as compared to fiscal 2007, was primarily due to a lower cash and investments balance and lower average interest rate.

Imputed and Declared Dividends on Preferred Stock

The holders of our Series C Preferred Stock were entitled to receive an annual dividend at a rate of 6%, in shares of common stock or cash, payable quarterly, through May 20, 2007. As part of this dividend, we paid cash of $23,000 during fiscal 2007 to holders of our Series C Preferred Stock. No dividends were paid to holders of our Series C Preferred Stock during the year ended December 31, 2008.

Income Taxes

Since inception, we have incurred operating losses and accordingly have not recorded a provision for income taxes for any of the periods presented. As of December 31, 2008, we had net operating loss carry forwards for federal and state income tax purposes of approximately $59.4 million and $58.0 million, respectively. We also had federal and state research and development tax credits of approximately $1.2 million and $1.5 million, respectively. If not utilized, the net operating losses and credits will begin to expire in 2013. Utilization of net operating losses and credits are subject to a substantial annual limitation due to ownership change limitations provided by the Internal Revenue Code of 1986, as amended.

Liquidity and Capital Resources

Historically, our primary uses of cash have been to finance research and development activities including clinical trial activities in the oncology, DNA vaccines and other immunotherapy areas of our business. Since inception, we have satisfied our cash requirements principally from proceeds from the sale of equity securities, such as the financing discussed in more detail below.

Working Capital and Liquidity

As of December 31, 2009, we had working capital of $25.2 million, as compared to $554,000 as of December 31, 2008. The increase in working capital during the year ended December 31, 2009 was primarily due to our recent financing. On July 29, 2009, we entered into a securities purchase agreement with certain institutional investors relating to the sale and issuance of (a) 11,111,110 shares of common stock and (b) warrants to purchase a total of 2,777,776 shares of common stock with an

Table of Contents

exercise price of $3.50 per share, for an aggregate purchase price of approximately $30.0 million. The warrants were exercisable beginning six months after issuance and expire six months from the date they are first exercisable. The shares of common stock and warrants were sold in units, consisting of one share of common stock and a warrant to purchase 0.25 of a share of common stock, at a purchase price of $2.70 per unit. The offering closed on July 31, 2009. We received proceeds from the funding of approximately $28.4 million, after deducting offering expenses.

The change in working capital is also due to ARS investment securities and the related ARS Rights being reclassified from long-term assets to current assets due to the time frame in which they can be readily convertible to cash, offset by expenditures related to our research and development activities, as well as various general and administrative expenses related to legal, consultants, accounting and audit, and corporate development. Based on management's projections and analysis, we believe that our cash and cash equivalents are sufficient to meet our planned working capital requirements through the second half of 2011.

Our ARS are municipal debt obligations with an underlying long-term maturity. Due to conditions in the global credit markets these securities, representing a par value of $13.6 million, are currently not liquid.

In December 2008, we, via our wholly-owned subsidiary Genetronics, which holds the ARS, accepted an offer of ARS Rights from UBS. The ARS Rights permit us to require UBS to purchase our ARS at par value at any time during the period of June 30, 2010 through July 2, 2012. If we do not exercise our ARS Rights, the ARS will continue to accrue interest as determined by the terms of the ARS. If the ARS Rights are not exercised before July 2, 2012 they will expire and UBS will have no further obligation to buy our ARS. UBS has the discretion to purchase or sell our ARS at any time without prior notice so long as we receive a payment at par upon any sale or disposition. UBS will only exercise its discretion to purchase or sell our ARS for the purpose of restructurings, dispositions or other solutions that will provide us with par value for our ARS. As a condition to accepting the offer of ARS Rights, we released UBS from all claims except claims for consequential damages relating to its marketing and sales of ARS. We also agreed not to serve as a class representative or receive benefits under any class action settlement or investor fund.

In conjunction with the acceptance of the ARS Rights, we also amended our existing loan agreement with UBS Bank USA, increasing the existing credit line up to $12.1 million, with the ARS pledged as collateral. The loan is treated as a "no net cost loan", as it bears interest at a rate equal to the average rate of interest paid to Genetronics on the pledged ARS, and the net interest cost to Genetronics is zero. We fully drew down on the line of credit in December 2008.

Historically, the fair value of ARS approximated par value. While we continue to earn interest on our ARS at the maximum contractual rates, these investments are not currently trading and therefore do not currently have a readily determinable market value. Accordingly, the estimated fair value of the ARS no longer approximates par value. We have used a discounted cash flow model to determine the estimated fair value of our investment in ARS and our ARS Rights as of December 31, 2009. The assumptions used in preparing the discounted cash flow model include estimates for interest rates, timing and amount of cash flows and expected holding period of the ARS and ARS Rights.

As of December 31, 2009, we had an accumulated deficit of $177.2 million. We have operated at a loss since 1994, and we expect this to continue for some time. The amount of the accumulated deficit will continue to increase, as it will be expensive to continue research and development efforts. If these activities are successful and if we receive approval from the FDA to market DNA vaccines and equipment, then even more funding will be required to market and sell the approved vaccine products and equipment. The outcome of the above matters cannot be predicted at this time. We are evaluating potential collaborations as an additional way to fund operations. We will continue to rely on outside sources of financing to meet our capital needs beyond mid-2011.

Table of Contents

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenue, expenses, and results of operations, liquidity, capital expenditures or capital resources.

Contractual Obligations

On December 19, 2008, we amended our existing loan agreement with UBS Bank USA, increasing the existing credit line up to $12.1 million, with our Auction Rate Securities pledged as collateral. We fully drew down on the line of credit on December 23, 2008. Advances under the Line of Credit bear interest at LIBOR plus 1.00% (the "Spread Over LIBOR"). UBS may change the Spread Over LIBOR at its discretion when the Collateral consisting of ARS may be sold, exchanged or otherwise conveyed by us for gross proceeds that are, in the aggregate, not less than the par value of such securities. The loan is treated as a "no net cost loan", as it bears interest at a rate equal to the average rate of interest paid to us on the pledged ARS, and the net interest cost to us is zero.

As of December 31, 2009, we did not have any other material long-term debt or other known contractual obligations, except for the operating leases for our facilities, which expire in 2013 through 2017, and operating leases for copiers, which expire in 2011.

We are contractually obligated to make the following operating lease payments as of December 31, 2009:

	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Operating lease obligations	$ 3,720,148	$ 631,433	$ 1,189,364	$ 949,376	$ 949,975

ITEM 7A. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

Market risk represents the risk of loss that may impact our consolidated financial position, results of operations or cash flows due to adverse changes in financial and commodity market prices and rates. We are exposed to market risk primarily in the area of changes in United States of America interest rates and conditions in the credit markets, and the recent fluctuations in interest rates and availability of funding in the credit markets primarily impacts the performance of our investments. We do not have any material foreign currency or other derivative financial instruments. Under our current policies, we do not use interest rate derivative instruments to manage exposure to interest rate changes. We attempt to increase the safety and preservation of our invested principal funds by limiting default risk, market risk and reinvestment risk. We mitigate default risk by investing in investment grade securities.

Fair Value Measurements

All of our investment securities are classified as trading securities and are reported on the consolidated balance sheet at market value. Our investment securities consist of auction rate securities ("ARS") issued primarily by municipalities, with a par value of approximately $13.6 million. As a result of the negative conditions in the global credit markets, our ARS are currently not liquid, and if we do not exercise our ARS Rights (discussed in the following paragraph) we could be required to hold them until they are redeemed by the issuer or to maturity. In the event we need to access the funds that are in an illiquid state, we will not be able to do so without a loss of principal, until the securities are redeemed by the issuer or they mature.

In December 2008, we, via our wholly-owned subsidiary Genetronics, which holds the ARS, accepted an offer of ARS Rights from our investment advisor, UBS Financial Services, Inc., a

Table of Contents

subsidiary of UBS AG, or UBS. The ARS Rights permit us to require UBS to purchase our ARS at par value at any time during the period of June 30, 2010 through July 2, 2012. If we do not exercise our ARS Rights, the ARS will continue to accrue interest as determined by the terms of the ARS. If the ARS Rights are not exercised before July 2, 2012 they will expire and UBS will have no further obligation to buy our ARS. UBS has the discretion to purchase or sell our ARS at any time without prior notice so long as we receive a payment at par upon any sale or disposition. UBS will only exercise its discretion to purchase or sell our ARS for the purpose of restructurings, dispositions or other solutions that will provide us with par value for our ARS. As a condition to accepting the offer of ARS Rights, we released UBS from all claims except claims for consequential damages relating to its marketing and sales of ARS. We also agreed not to serve as a class representative or receive benefits under any class action settlement or investor fund.

In conjunction with the acceptance of the ARS Rights, we also amended our existing loan agreement with UBS Bank USA, increasing the existing credit line up to $12.1 million, with the ARS pledged as collateral. The loan is treated as a "no net cost loan", as bears interest at a rate equal to the average rate of interest paid to us on the pledged ARS, and our net interest cost is zero. We fully drew down on the line of credit in December 2008.

Foreign Currency Risk

We have operated primarily in the United States of America and most transactions during the year ended December 31, 2009, have been made in U.S. dollars. Accordingly, we have not had any material exposure to foreign currency rate fluctuations, with the exception of the valuation of our equity investment in VGX Int'l. We do not have any foreign currency hedging instruments in place.

We have conducted clinical trials in Europe in conjunction with several Clinical Research Organizations ("CRO's"), where we have clinical sites being monitored by Clinical Research Associates ("CRA's"). While invoices relating to these clinical trials are generally denominated in U.S. dollars, our financial results could be affected by factors such as inflation in foreign currencies, in relation to the U.S. dollar, in markets where these vendors have assisted us in conducting these clinical trials.

Certain transactions related to our Company and our subsidiary Inovio Asia Pte. Ltd. ("IAPL"), are denominated primarily in foreign currencies, including Euros, British Pounds, Canadian Dollars, and Singapore Dollars. Our equity investment in VGX Int'l is denominated in South Korean Won. As a result, our financial results could be affected by factors such as changes in foreign currency exchange rates or weak economic conditions in foreign markets where Inovio conducts business, including the impact of the existing crisis in the global financial markets in such countries and the impact on both the U.S. dollar and the noted foreign currencies.

We do not use derivative financial instruments for speculative purposes. We do not engage in exchange rate hedging or hold or issue foreign exchange contracts for trading purposes. Currently, we do not expect the impact of fluctuations in the relative fair value of other currencies to be material in 2010.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this Item 8 is incorporated by reference to our Consolidated Financial Statements and the Report of Independent Registered Public Accounting Firm beginning at page F-1 of this report.

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

None.

Table of Contents

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of December 31, 2009, an evaluation was carried out by the company, with the participation of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934). Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that these disclosure controls and procedures were effective as of the end of the period covered by this report.

Internal Control Over Financial Reporting

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is a process designed under the supervision of our Chief Executive Officer and Chief Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

As of December 31, 2009, management, with the participation of the Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of our internal control over financial reporting based on the criteria for effective internal control over financial reporting established in "Internal Control Integrated Framework," issued by the Committee of Sponsoring Organizations ("COSO") of the Treadway Commission. Our assessment did not include evaluating the effectiveness of internal control over financial reporting of our recently acquired subsidiary, VGX Pharmaceuticals, Inc., which is included in our 2009 consolidated financial statements and constituted: $19.9 million total assets as of December 31, 2009 and $3.5 million and $14.7 million of revenues and net loss, respectively, for the year then ended. We did not assess the effectiveness of internal control over financial reporting at this newly acquired subsidiary due to the complexity associated with assessing internal controls during the integration efforts and limited company resources, thus making the completion of the process in 2009 impractical. Based on the assessment, management determined that we maintained effective internal control over financial reporting as of December 31, 2009.

Attestation Report of Independent Registered Public Accounting Firm

This annual report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our independent registered public accounting firm pursuant to temporary rules of the Securities and Exchange Commission that permit us to provide only management's report in this annual report.

Changes in Internal Control over Financial Reporting

There have not been any changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) that occurred during the fourth quarter of our fiscal year ended December 31, 2009, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

On March 24, 2010, we entered into a Collaboration and License Agreement (the "Agreement") with VGX International ("VGX Int'l"). Under the Agreement, we granted VGX Int'l an exclusive

Table of Contents

license to Inovio's SynCon universal influenza vaccine delivered with electroporation to be developed in certain countries in Asia (the "Product").

As consideration for the license granted to VGX Int'l, we will receive a research and development initiation fee, as well as research support, annual license maintenance fees and royalties on net Product sales. In addition, contingent upon achievement of clinical and regulatory milestones, we will receive development payments over the term of the Agreement. The Agreement also provides Inovio with exclusive rights to supply devices for clinical and commercial purposes (including single use components) to VGX Int'l for use in the Product.

The term of the Agreement commenced upon execution and will extend on a country by country basis until the last to expire of all Royalty Periods for the territory (as such term is defined in the Agreement) for any Product in that country, unless the Agreement is terminated earlier in accordance with its provisions as a result of breach, by mutual agreement, or by VGX Int'l right to terminate without cause upon prior written notice.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item 10 is hereby incorporated by reference from our definitive proxy statement, to be filed pursuant to Regulation 14A within 120 days after the end of our 2009 fiscal year.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item 11 is hereby incorporated by reference from our definitive proxy statement, to be filed pursuant to Regulation 14A within 120 days after the end of our 2009 fiscal year.

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

The information required by this Item 12 is hereby incorporated by reference from our definitive proxy statement, to be filed pursuant to Regulation 14A within 120 days after the end of our 2009 fiscal year.

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

Director independence and other information required by this Item 13 is hereby incorporated by reference from our definitive proxy statement, to be filed pursuant to Regulation 14A within 120 days after the end of our 2009 fiscal year.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item 14 is hereby incorporated by reference from our definitive proxy statement, to be filed pursuant to Regulation 14A within 120 days after the end of our 2009 fiscal year.

Table of Contents

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

1.

Financial Statements

Consolidated financial statements required to be filed hereunder are indexed on Page F-2 hereof.

2.

Financial Statement Schedules

Schedules not listed herein have been omitted because the information required to be set forth therein is not applicable or is included in the Financial Statements or notes thereto.

3.

Exhibits

The following exhibits are filed as part of this annual report on Form 10-K:

Exhibit Number	Description of Document
2.1#	Amended and Restated Agreement and Plan of Merger By and Among Inovio Biomedical Corporation, Inovio Acquisition, LLC, and VGX Pharmaceuticals, Inc. dated December 5, 2008 (included as *Annex A* to the registrant's Registration Statement on Form S-4). (File No. 333-156035), filed on January 23, 2009).
2.2	Amendment No. 1 to Amended and Restated Merger Agreement by and among Inovio Biomedical Corporation, Inovio Acquisition, LLC, and VGX Pharmaceuticals, Inc. dated March 31, 2009 (incorporated by reference to Exhibit 2.1 of the registrant's Current Report on Form 8-K filed on March 31, 2009).
3.1(a)	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).
(b)	Certificate of Amendment to Amended and Restated Certificate of Incorporation as filed with the Delaware Secretary of State on September 10, 2004 (incorporated by reference to Exhibit 3.1 of the registrant's Current Report on Form 8-K filed September 16, 2004).
(c)	Certificate of Amendment to the Amended and Restated Certificate of Incorporation as filed with the Delaware Secretary of State on March 31, 2005 (incorporated by reference to Exhibit 3.1 of the registrant's Current Report on Form 8-K filed on April 4, 2005).
3.2(a)	Certificate of Designations, Rights and Preferences of Series C Convertible Preferred Stock of Registrant (incorporated by reference to Exhibit 3.3 of the registrant's Registration Statement on Form S-3 filed on June 21, 2004).
(b)	Certificate of Decrease of Shares of Series C Cumulative Convertible Preferred Stock of Registrant (incorporated by reference to Exhibit 3.4 of the registrant's Registration Statement on Form S-3 filed on June 21, 2004).
3.3	Amended and Restated Bylaws of Inovio Biomedical Corporation (incorporated by reference to Exhibit 3.6 to the registrant's Current Report on Form 8-K filed on August 18, 2009).
4.3	Warrant to Purchase Common Stock, dated September 15, 2000 by and between the Registrant and the University of South Florida Research Foundation (incorporated by reference to Exhibit 10.6 of the registrant's Form 10-Q filed on November 9, 2000).
4.4	Warrant to Purchase Common Stock, dated September 15, 2000 by and between the Registrant and Dr. Richard Gilbert (incorporated by reference to Exhibit 10.7 of the registrant's Form 10-Q filed on November 9, 2000).

63

Table of Contents

Exhibit Number	Description of Document
4.5	Warrant to Purchase Common Stock, dated September 15, 2000 by and between the Registrant and Dr. Richard Heller (incorporated by reference to Exhibit 10.8 of the registrant's Form 10-Q filed on November 9, 2000).
4.6	Warrant to Purchase Common Stock, dated September 15, 2000 by and between the Registrant and Dr. Mark Jaroszeski (incorporated by reference to Exhibit 10.9 of the registrant's Form 10-Q filed on November 9, 2000).
4.12	Form of Common Stock Purchase Warrant dated as of September 15, 2006 by and between the registrant and each of the purchasers listed on Schedule 1 to the Securities Purchase Agreement (Exhibit 10.23 herein) (incorporated by reference to Exhibit 4.3 of the registrant's Current Report on Form 8-K filed on September 20, 2006).
4.13	Registration Rights Agreement dated as of September 15, 2006 by and among registrant and certain investors indicated on a schedule thereto (incorporated by reference to Exhibit 10.5 of the registrant's Quarterly Report on Form 10-Q filed on November 9, 2006).
4.14	Form of Common Stock Purchase Warrant to be used by and between the registrant and each of the purchasers listed on Schedule 1 to the Securities Purchase and Exchange Agreement (Exhibit 10.25 herein) (incorporated by reference to Exhibit 4.24 of the registrant's Annual Report on Form 10-K filed on March 16, 2007).
4.16+	Form of Restricted Stock Award Grants under the 2007 Omnibus Stock Incentive Plan (incorporated by reference to Exhibit 4.3 to the Registrant's Registration Statement on Form S-8 filed on May 14, 2007).
4.17+	Form of Incentive and Non-Qualified Stock Option Grants under the 2007 Omnibus Stock Incentive Plan (incorporated by reference to Exhibit 4.4 to the Registrant's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on May 14, 2007).
4.18	Form of Common Stock Greenshoe Warrant issued by Inovio Biomedical Corporation (incorporated by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed on July 30, 2009).
10.1	Lease Agreement by and between the registrant and 1787 Sentry Park West LLC dated December 10, 2009.
10.2	License Agreement dated September 20, 2000 by and between the registrant and the University of South Florida Research Foundation, Inc. (incorporated by reference to Exhibit 10.5 of the registrant's Form 10-Q filed on November 9, 2000).
10.3	Non-Exclusive License and Research Collaboration Agreement dated as of May 21, 2004 by and among the registrant and Merck & Co., Inc. and Genetronics, Inc., a subsidiary of the registrant (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed on August 13, 2004).
10.4	Form of Warrant to Purchase Common Stock (incorporated by reference to Exhibit 4.2 of the registrant's Current Report on Form 8-K filed August 6, 2007).
10.5+	Form of Employment Agreement by and between the registrant and Peter Kies, effective only upon closing of the Merger (incorporated by reference to Exhibit 10.24 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on December 10, 2008).

Table of Contents

Exhibit Number	Description of Document
10.6	Voting Trust Agreement dated June 1, 2009 by and among Inovio Biomedical Corporation, the stockholders listed on Schedule I thereto, Simon Benito, Tee Khiang Ng and Dr. Morton Collins (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on June 1, 2009).
10.7	Form of Placement Agent Agreement by and between Inovio Biomedical Corporation and Rodman & Renshaw LLC dated July 29, 2009 (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on July 30, 2009).
10.8	Securities Purchase Agreement dated July 29, 2009 by and among Inovio Biomedical Corporation and the purchasers identified on the signature pages thereto (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on July 30, 2009).
10.9	Form of Indemnification Agreement for Directors and Officers of Inovio Biomedical Corporation (incorporated by reference to Exhibit 10.1 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, filed on August 19, 2009).
10.10+	Amended and Restated Employment Agreement dated October 6, 2009 by and between Inovio Biomedical Corporation and Dr. Avtar Dhillon (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on October 6, 2009).
10.11#	Amended and Restated 2007 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2009, filed on November 13, 2009).
10.12	License Agreement dated June 26, 2000 by and among Baylor College of Medicine, Valentis, Inc. and Applied Veterinary Systems, Inc., as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.13	License Agreement dated January 25, 2001 by and between Baylor College of Medicine and Applied Veterinary Systems, Inc. as assigned to VGX Pharmaceuticals, Inc., as amended by First Amendment dated April 17, 2002, Second Amendment dated May 29, 2002, Third amendment dated March 5, 2002, Fourth Amendment dated April 14, 2004 and Fifth Amendment dated February 15, 2007 (incorporated by reference to Exhibit 10.27 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.14	License Agreement dated November 5, 2001 by and between The Trustees of the University of Pennsylvania and VGX Pharmaceuticals, Inc., as amended by First Amendment dated August 15, 2005(incorporated by reference to Exhibit 10.29 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.15	Agreement of Lease dated January 21, 2005 by and between 450 Sentry Parkway Associates and VGX Pharmaceuticals, Inc.; Addendum confirmed lease term dated June 16, 2005(incorporated by reference to Exhibit 10.30 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.16	R&D Alliance Agreement dated December 19, 2005 by and between Ganial Immunotherapeutics, Inc. and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.31 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).

Table of Contents

Exhibit Number	Description of Document
10.17	Asset Purchase Agreement dated February 21, 2007 by and among Ronald O. Bergan, Mary Alice Bergan, and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.32 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.18	License Agreement dated May 9, 2007 by and between Baylor University and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.34 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.19	R&D Collaboration and License Agreement dated June 27, 2007 by and between VGX International, Inc. and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.35 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.20	Non-Exclusive License Agreement dated September 1, 2007 by and between VGX Animal Health, Inc. and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.36 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.21	License Agreement dated September 1, 2007 by and between VGX Animal Health, Inc. and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.37 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.22	Assignment of Contingent Payments Agreement dated October 20, 2007 by and among Ronald O. Bergan, Mary Alice Bergan, VGX Animal Health, Inc., and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.38 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.23	R&D Collaboration and License Agreement dated December 18, 2006 by and between VGX International, Inc. and VGX Pharmaceuticals, Inc., as amended by First Amendment dated October 31, 2007 and as amended by Second Amendment dated August 4, 2008 (incorporated by reference to Exhibit 10.39 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.24	Sales and Marketing Agreement dated February 28, 2008 by and between VGX International and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.42 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.25	Employment Agreement dated March 31, 2008 by and between J. Joseph Kim, Ph.D. and VGX Pharmaceuticals, Inc., as amended by First Amendment of Employment Agreement dated March 31, 2008 (incorporated by reference to Exhibit 10.43 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.26	CELLECTRA Device License Agreement dated April 16, 2008 by and between VGX International and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.44 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.27	Asset Purchase Agreement dated June 10, 2008 by and among VGXI, Inc. and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.48 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.28	Sublease Agreement dated June 10, 2008 by and between VGXI, Inc. and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.49 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).

Table of Contents

Exhibit Number	Description of Document
10.29	Patent License Agreement dated April 27, 2007 by and between The Trustees of the University of Pennsylvania and VGX Pharmaceuticals, Inc., as amended by First Amendment dated June 12, 2008(incorporated by reference to Exhibit 10.50 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.30+	2001 Equity Compensation Plan for VGX Pharmaceuticals, Inc., as amended (incorporated by reference to Exhibit 10.62 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.31+	2007 Equity Compensation Plan for VGX Animal Health, Inc. (incorporated by reference to Exhibit 10.63 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.32	Memorandum of NIH Research Grant Agreement by and between National Institute of Allergy and Infectious Diseases and VGX Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.66 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.33	Form of Warrant to Purchase Common Stock issued by VGX Pharmaceuticals, Inc. since 2003 (incorporated by reference to Exhibit 10.67 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
10.34	Form of Warrant Purchase Agreement for Warrants to Purchase Common Stock issued by VGX Pharmaceuticals, Inc. since 2003 (incorporated by reference to Exhibit 10.68 as filed with the registrant's registration statement on Form S-4 (File No. 333-156035) on April 27, 2009).
21.1	Subsidiaries of the registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
24.1	Power of Attorney (included on signature page).
31.1	Certification of the Chief Executive Officer pursuant Securities Exchange Act Rule 13a-14(a).
31.2	Certification of the Chief Financial Officer pursuant Securities Exchange Act Rule 13a-14(a).
32.1	Certification pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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The registrant hereby agrees to furnish the staff, on a confidential basis, a supplemental copy of any omitted schedule upon the staff's request.

+

Designates management contract, compensatory plan or arrangement.

We have applied with the Secretary of the Securities and Exchange Commission for confidential treatment of certain information pursuant to Rule 24b-2 of the Securities Exchange Act of 1934. We have filed separately with our application a copy of the exhibit including all confidential portions, which may be made available for public inspection pending the Securities and Exchange Commission's review of the application in accordance with Rule 24b-2.

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 on March 26, 2010.

Inovio Biomedical Corporation

By: /s/ J. JOSEPH KIM

J. Joseph Kim
President, Chief Executive Officer and Director

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints J. Joseph Kim and Peter Kies, and each of them severally, his or her true and lawful attorney-in-fact with power of substitution and resubstitution to sign in his or her name, place and stead, in any and all capacities, to do any and all things and execute any and all instruments that such attorney may deem necessary or advisable under the Securities Exchange Act of 1934 and any rules, regulations and requirements of the U.S. Securities and Exchange Commission in connection with the Annual Report on Form 10-K and any and all amendments hereto, as fully for all intents and purposes as he or she might or could do in person, and hereby ratifies and confirms all said attorneys-in-fact and agents, each acting alone, and his or her substitute or 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/ J. JOSEPH KIM J. Joseph Kim	President, Chief Executive Officer and Director (Principal Executive Officer)	March 26, 2010
/s/ AVTAR DHILLON Avtar Dhillon	Executive Chairman	March 26, 2010
/s/ PETER KIES Peter Kies	Chief Financial Officer (Principal Accounting Officer and Principal Financial Officer)	March 26, 2010
/s/ SIMON X. BENITO Simon X. Benito	Director	March 26, 2010

Table of Contents

Signature	Title	Date
/s/ TEE KHIANG NG Tee Khiang Ng	Director	March 26, 2010
/s/ MORTON COLLINS Morton Collins	Director	March 26, 2010
/s/ DAVID WILLIAMS David Williams	Director	March 26, 2010
/s/ KEITH WELLS Keith Wells	Director	March 26, 2010

Table of Contents

INOVIO BIOMEDICAL CORPORATION

Index to Consolidated Financial Statements

Table of Contents

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Inovio Biomedical Corporation

We have audited the accompanying consolidated balance sheets of Inovio Biomedical Corporation as of December 31, 2009 and 2008 and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2009. 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's 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, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Inovio Biomedical Corporation at December 31, 2009 and 2008, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2009, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

San Diego, California
March 26, 2010

Table of Contents

Inovio Biomedical Corporation

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2009	**2008**
ASSETS		
Current assets:		
Cash and cash equivalents	$ 30,296,215	$ 14,115,281
Short-term investments	10,397,530	
Auction rate security rights	3,145,156	
Accounts receivable	259,207	671,187
Accounts receivable from affiliated entity	58,853	
Prepaid expenses and other current assets	409,845	477,285
Total current assets	44,566,806	15,263,753
Long-term investments		9,169,471
Auction rate security rights		4,281,494
Fixed assets, net	343,457	353,807
Intangible assets, net	12,968,934	5,850,540
Goodwill	10,113,371	3,900,713
Investment in affiliated entity	12,330,802	
Other assets	305,547	167,250
Total assets	$ 80,628,917	$ 38,987,028
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 3,445,750	$ 1,367,300
Accounts payable and accrued expenses due to affiliated entity	445,091	
Accrued clinical trial expenses	299,261	399,919
Line of credit	12,114,760	12,109,423
Common stock warrants	2,774,850	224,582
Deferred revenue	270,326	523,544
Deferred rent		84,814
Total current liabilities	19,350,038	14,709,582
Deferred revenue, net of current portion	82,594	4,269,151
Deferred rent, net of current portion	11,338	14,898
Deferred tax liabilities		887,250
Total liabilities	19,443,970	19,880,881
Commitments and contingencies		
Inovio Biomedical Corporation stockholders' equity:		
Preferred stock par value $0.001; Authorized shares: 10,000,000, issued and outstanding: 26 and 71 at December 31, 2009 and December 31, 2008, respectively		
Common stock par value $0.001; Authorized shares: 300,000,000, issued and outstanding: 102,746,058 and 102,746,058 at December 31, 2009 and 44,116,800 and 44,023,050 at December 31, 2008, respectively	102,746	44,022
Additional paid-in capital	237,577,970	171,868,914
Accumulated deficit	(177,224,433)	(152,812,948)
Accumulated other comprehensive income	105,796	6,159
Total Inovio Biomedical Corporation stockholders' equity	60,562,079	19,106,147
Non-controlling interest	622,868	

Total stockholders' equity	61,184,947	19,106,147
Total liabilities and stockholders' equity	$ 80,628,917	$ 38,987,028

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

Table of Contents

Inovio Biomedical Corporation

CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Years ended December 31,		
	2009	**2008**	**2007**
Revenues:			
License fee and milestone payments	$ 4,929,309	$ 791,401	$ 2,793,478
Revenue under collaborative research and development arrangements	125,996	1,077,967	1,854,303
Grants and miscellaneous revenue	4,064,806	228,264	159,948
Total revenues	9,120,111	2,097,632	4,807,729
Operating expenses:			
Research and development	9,408,457	5,750,494	9,625,947
General and administrative	13,669,409	10,005,602	11,080,202
Total operating expenses	23,077,866	15,756,096	20,706,149
Loss from operations	(13,957,755)	(13,658,464)	(15,898,420)
Other income (expense):			
Other income/(expense), net	(1,258,848)	49,006	3,421,580
Interest income, net	2,293	643,836	1,272,397
Loss from investment in affiliated entity	(9,244,614)		
Net loss	(24,458,924)	(12,965,622)	(11,204,443)
Net loss attributable to non-controlling interest	47,439		
Imputed and declared dividends on preferred stock			(23,335)
Net loss attributable to Inovio Biomedical Corporation	$ (24,411,485)	$ (12,965,622)	$ (11,227,778)
Loss per common share basic and diluted:			
Net loss per share attributable to Inovio Biomedical Corporation stockholders	$ (0.33)	$ (0.30)	$ (0.27)
Weighted average number of common shares outstanding basic and diluted	74,714,138	43,914,004	41,493,412

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

Table of Contents

Inovio Biomedical Corporation

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Preferred stock		Common stock					Accumulated other comprehensive		
	Number of shares	Amount	Number of shares	Amount	Additional paid-in capital	Receivables from stockholders	Accumulated deficit	(loss) income	Non-controlling interest	Total stockholders' equity
Balance at December 31, 2006	1,028,069	$ 1,028	35,639,521	$ 35,639	$ 146,783,730	$ (86,030)	$ (128,619,548)	$ 37,045	$	18,151,864
Exercise of stock options for cash			94,563	94	218,407					218,501
Exercise of warrants for cash			3,082	3	7,394					7,397
Cashless exercise of warrants			38,097	38	(38)					
Conversions of preferred stock to common stock	(914,687)	(915)	960,238	961	(46)					
Conversions of ordinary shares to common stock			2,201,644	2,202	5,347,793					5,349,995
Cash receipt towards stockholder notes receivable						36,030				36,030
Issuance of common stock for consulting services			263,750	264	610,762					611,026
Issuance of common stock for cash, net of issuance costs of $110,313			4,595,094	4,595	16,059,829					16,064,424
Stock-based compensation			18,750	19	1,702,790					1,702,809
Comprehensive loss:										
Net loss attributable to common stockholders							(11,227,778)			(11,227,778)
Unrealized gain on investments								9,945		9,945
Foreign currency translation gain								110,541		110,541
Total comprehensive loss										(11,107,292)
Balance at December 31, 2007	113,382	$ 113	43,814,739	$ 43,815	$ 170,730,621	$ (50,000)	$ (139,847,326)	$ 157,531	$	31,034,754
Exercise of stock options for cash			1,250	1	1,087					1,088
Conversions of preferred stock to common stock	(113,311)	(113)	113,311	113						
Reserve for stockholder note receivable						50,000				50,000
Issuance of common stock for consulting services			56,250	55	46,520					46,575
Stock-based compensation			37,500	38	1,090,686					1,090,724
Comprehensive loss:										
Net loss attributable to common stockholders							(12,965,622)			(12,965,622)

Unrealized loss on investments						(9,945)	(9,945)
Foreign currency translation loss						(141,427)	(141,427)
Total comprehensive loss							(13,116,994)
Balance at December 31, 2008	71	44,023,050	$ 44,022	$ 171,868,914	$ (152,812,948)	$ 6,159	$ 19,106,147

Table of Contents

Inovio Biomedical Corporation

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (Continued)

	Preferred stock		Common stock					Accumulated other comprehensive (loss) income	Non-controlling interest	Total stockholders' equity
	Number of shares	Amount	Number of shares	Amount	Additional paid-in capital	Receivables from stockholders	Accumulated deficit			
Balance at December 31, 2008	71		44,023,050	$ 44,022	$171,868,914		$(152,812,948)	$ 6,159		$ 19,106,147
Issuance of common stock to VGX Pharmaceutical Shareholders			41,492,757	41,493	26,098,943					26,140,436
Stock options and warrants assumed in connection with merger					5,137,038					5,137,038
Non-controlling interest assumed in connection with merger									670,307	670,307
Issuance of common stock and warrants for cash, net of financing costs of $1.6 million			11,111,110	11,111	28,395,245					28,406,356
Fair value of common stock warrants issued in connection with equity financing					(1,263,384)					(1,263,384)
Exercise of stock options for cash			794,043	795	357,945					358,740
Cashless exercise of stock options			519,491	519	(519)					
Conversions of preferred stock to common stock	(45)		66,176	66	(66)					
Conversion of convertible debt to common stock			4,600,681	4,601	4,826,114					4,830,715
Stock-based compensation			138,750	139	2,157,740					2,157,879
Comprehensive loss:										
Net loss attributable to common stockholders							(24,411,485)		(47,439)	(24,458,924)
Foreign currency translation gain								99,637		99,637
Total comprehensive loss										(24,359,287)
Balance at December 31, 2009	26		102,746,058	$102,746	$237,577,970		$(177,224,433)	$ 105,796	$ 622,868	$ 61,184,947

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

Table of Contents

Inovio Biomedical Corporation

CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years ended December 31,		
	2009	**2008**	**2007**
Cash flows from operating activities:			
Net loss	$ (24,458,924)	$ (12,965,622)	$ (11,204,443)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	237,222	195,285	185,683
Amortization of intangible assets	1,439,756	797,742	831,958
Change in value of common stock warrants	1,286,884	(142,489)	(3,173,621)
Gain on long-term investments	1,136,338		
Loss on auction rate security rights	(1,228,059)		
Unrealized loss on trading securities		4,380,529	
Recognition of auction rate securities rights		(4,281,494)	
Stock-based compensation	2,157,879	1,090,724	1,702,809
Compensation for services paid in common stock		46,575	611,026
Interest converted into common stock	430,715		
Interest expense accrued on line of credit	166,178		
Reserve for inventory purchased from related parties	177,969		
Amortization of deferred tax liabilities	(887,250)	(63,000)	(63,000)
Deferred rent	(131,020)	(61,946)	(66,832)
Impairment of long term investments		114,750	
Loss on disposal of fixed assets	26,404	9,792	
Loss from investment in affiliated entity	9,244,614		
Gain from long-term investment in affiliated entity	(5,502)		
Realization of loss carryforwards			389,881
Accretion of discount on available-for-sale securities		(60,345)	(86,670)
Changes in operating assets and liabilities:			
Accounts receivable	288,155	464,825	(726,884)
Accounts receivable from affiliated entity	1,103,925		
Prepaid expenses and other current assets	242,325	19,518	507,230
Other assets	(18,400)		
Accounts payable and accrued expenses	(1,043,838)	(583,841)	(321,080)
Accounts payable due to affiliated entity	428,353		
Deferred revenue	(4,673,916)	(87,521)	(99,806)
Net cash used in operating activities	(14,080,192)	(11,126,518)	(11,513,749)
Cash flows from investing activities:			
Purchases of long-term investments		(4,500,000)	(18,602,985)
Proceeds from long-term investments		8,000,000	16,400,000
Purchases of capital assets	(48,368)	(121,946)	(141,635)
Net cash provided by acquisition	1,611,280		
Additions to intangible assets and other assets	(116,567)	(461,852)	(504,095)
Net cash provided by (used in) investing activities	1,446,345	2,916,202	(2,848,715)
Cash flows from financing activities:			
Proceeds from issuance of common stock, net of issuance costs	28,406,356		16,064,424
Proceeds from stock option exercises	358,740	1,088	218,501
Proceeds from warrant exercises			7,397
Proceeds from line of credit		12,220,494	
Repayment of line of credit	(160,841)	(111,071)	
Reserve for stockholder note receivable		50,000	
Repayment of stockholder note receivable			36,030
Payment of preferred stock cash dividend			(23,335)
Net cash provided by financing activities	28,604,255	12,160,511	16,303,017

Effect of exchange rate changes on cash and cash equivalents	210,526	(85,843)	(11,230)
Increase in cash and cash equivalents	16,180,934	3,864,352	1,929,323
Cash and cash equivalents, beginning of period	14,115,281	10,250,929	8,321,606
Cash and cash equivalents, end of period	$ 30,296,215	$ 14,115,281	$ 10,250,929

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

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. The Company

Inovio Biomedical Corporation (the "Company" or "Inovio") is engaged in the discovery, development, and delivery of a new generation of vaccines, called DNA vaccines, focused on cancers and infectious diseases. The Company's SynCon technology enables the design of "universal" DNA-based vaccines capable of providing cross-protection against new, unmatched strains of pathogens such as influenza. The Company's electroporation DNA delivery technology uses brief, controlled electrical pulses to increase cellular DNA vaccine uptake. Initial human data has shown this method can safely and significantly increase gene expression and immune responses. The Company's clinical programs include human papillomavirus ("HPV")/cervical cancer (therapeutic) and human immunodeficiency virus ("HIV") vaccines. The Company has filed an Investigational New Drug application ("IND") with the Food and Drug Administration ("FDA") for an avian influenza vaccine and is advancing preclinical research for a universal seasonal/pandemic influenza vaccine. The Company's partners and collaborators include University of Pennsylvania, National Microbiology Laboratory of Public Health Agency of Canada, NIAID (NIH), Merck, Tripep, University of Southampton, and HIV Vaccines Trial Network.

All of the Company's potential human products are in research and development phases. No revenues have been generated from the sale of any such products, nor are any such revenues expected for at least the next several years. The Company earns revenue from license fees and milestone payments, collaborative research and development agreements, grants and government contracts. The Company's product candidates will require significant additional research and development efforts, including extensive preclinical and clinical testing. All product candidates that the Company advances to clinical testing will require regulatory approval prior to commercial use, and will require significant costs for commercialization.

2. VGX Pharmaceuticals Business Acquisition

On June 1, 2009 (the "Acquisition Date") the Company completed the acquisition of VGX Pharmaceuticals, Inc. ("VGX"), a privately-held company, pursuant to the terms of an Amended and Restated Agreement and Plan of Merger dated December 5, 2008, as further amended on March 31, 2009 (the "Merger Agreement") by and among Inovio, Inovio's wholly-owned subsidiary Inovio Acquisition, LLC and VGX (the "Merger").

Upon the closing of the Merger, based on an exchange ratio of 0.9812 (the "Merger Exchange Ratio"), and on terms and conditions as set forth in the Merger Agreement,

- all of the issued and outstanding shares of common stock of VGX were canceled and converted into the right to receive shares of common stock of Inovio,
- all outstanding options to purchase shares of VGX common stock became exercisable for shares of Inovio's common stock,
- all outstanding warrants to purchase shares of VGX common stock became exercisable for shares of Inovio's common stock, and
- all outstanding convertible debt of VGX became debt convertible into Inovio's common stock on existing terms.

As of the Acquisition Date, an aggregate of 41,492,757 shares of Inovio's common stock were issued to the former stockholders of VGX, and an additional 18,794,187 shares of Inovio's common

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. VGX Pharmaceuticals Business Acquisition (Continued)

stock were reserved for issuance upon exercise of the assumed options and warrants and conversion of the principal of and maximum interest payable on the VGX convertible debt. Immediately following the Acquisition Date the continuing holders of Inovio securities owned approximately 51.59% of Inovio's issued and outstanding common stock and the former holders of VGX securities owned approximately 48.41% of Inovio's issued and outstanding common stock.

Upon the closing of the Merger, Inovio Acquisition, LLC succeeded to all of VGX's business, properties and assets and assumed its obligations (other than the outstanding options and warrants to purchase shares of VGX common stock that became exercisable to purchase shares of Inovio common stock), changed its name to VGX Pharmaceuticals, LLC, and remains a wholly-owned subsidiary of the Company, utilizing a single, integrated management team with Inovio.

Prior to the date of the Merger Agreement, Inovio's sole relationship with VGX was as a party to a licensing agreement with VGX, entered into in the ordinary course of business, and as a holder of 25,000 shares of VGX common stock acquired in relation to such agreement. The shares of VGX common stock held by Inovio were cancelled upon closing of the Merger.

After a review of relevant factors and in accordance with the guidance regarding business combinations, Inovio was determined to be the accounting acquirer. The Merger was accounted for using the purchase method of accounting for business combinations under U.S. GAAP. Accordingly, the historical consolidated financial statements of Inovio were carried forward at their historical cost and the purchase price allocated to VGX's identifiable assets and liabilities was based on their estimated fair values at the Acquisition Date.

The final determination of the purchase price allocation was based on the fair values of major classes of assets acquired, including identifiable intangibles, and the fair value of liabilities assumed as of the Acquisition Date. The excess purchase price of the acquired entity over the fair value of assets and liabilities was recognized by the Company as goodwill on the accompanying consolidated balance sheet.

As a result of the Merger, Inovio acquired VGX's developed technology, which consists of VGX's CELLECTRA® technology and GHRH technology.

The purchase price allocation for acquisitions requires extensive use of accounting estimates and judgments to allocate the purchase price to the identifiable tangible and intangible assets acquired, including in-process research and development, and liabilities assumed based on their respective fair values. Additionally, the Company must determine whether an acquired entity is considered to be a business or a set of net assets, because a portion of the purchase price can only be allocated to goodwill in a business combination.

Management estimated the fair value of the VGX developed technology using reasonable assumptions based on historical experience. The valuation methodology used to estimate the value of the technologies was the excess earnings method. This method reflects the present value of the operating cash flows generated by the technologies after taking into account the cost to realize the revenue, and an appropriate discount rate to reflect the time value and risk associated with the assets. First, yearly revenues for each technology were forecasted for a projected period of time of 10 years. Related cost of sales and operating expenses were then deducted from the revenue stream. Next, in order to value the technology, the value and required rate of return for other assets that contribute to the generation of the revenue earned by that particular technology asset were determined. The

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. VGX Pharmaceuticals Business Acquisition (Continued)

required returns on these other assets (the other asset classes identified were: net working capital, fixed assets, and assembled workforce) were "charged to" (or rather deducted from) the future net operating income to determine the returns specifically earned by the technology. Then, a discount rate was applied that considered the reasonable expectation of the risk profile of the proprietary technology in order to bring the future income to a present value. In the case of CELLECTRA® technology, a discount rate of 45% was used for the core technology and 60% for the milestone and royalty; for the GHRH technology, a 45% discount rate was utilized.

There was no purchase price amount allocated to acquired in-process research and development.

The percentage of non-controlling ownership interest consists of 12% in VGX AH and 88% ownership by the Company. The estimated fair value utilized is based on the last round of financing by VGX AH in late 2007, in which that entity issued shares of its common stock to a third party. There have been no subsequent financing rounds. Inovio has updated the valuation model to reflect current assumptions and due to the fact that there have been no additional milestone events, such as additional marketing approval, significant licensing agreements, material adverse events, or large sales contracts that would have materially changed any of the key assumptions used in the last valuation of VGX AH, Inovio believes that the valuation used in the last round of financing continues to reflect current fair value.

The Company's investment in an affiliated entity represents the Company's ownership interest in VGX International, Inc. ("VGX Int'l") and is measured at fair value. The fair market value of the Company's interest in VGX Int'l was determined using the closing price of VGX Int'l I's shares of common stock as listed on the Korean Stock Exchange as of June 1, 2009.

The total purchase price of the acquisition is estimated as follows:

Value of Inovio shares issued	$	26,156,188
Value of vested warrants and options assumed		5,137,038
	$	31,293,226

The fair value of the Inovio shares used in determining the purchase price was $0.63 per share based on the closing price of Inovio common stock on June 1, 2009.

The purchase price has been allocated to each major class of identifiable assets acquired and liabilities assumed based on their fair values as of June 1, 2009. The allocation to identifiable assets and liabilities is summarized below:

		Fair Value
Identifiable assets acquired	$	25,012,941
Intangible assets (developed technology)		8,441,583
Goodwill		6,212,658
Assumed liabilities		(7,703,649)
Assumed noncontrolling interest		(670,307)
Total	$	31,293,226

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. VGX Pharmaceuticals Business Acquisition (Continued)

The excess of the purchase price over the fair value of net assets acquired resulted in goodwill of approximately $6.2 million.

The following unaudited pro forma financial information combines the results of operations of Inovio and VGX assuming the Merger was consummated on January 1, 2008. The pro forma results are not necessarily indicative of what would have occurred if the Merger had been in effect for the periods presented. In addition, they are not intended to be a projection of future results and do not reflect any synergies that might be achieved from combined operations.

	Year Ended December 31, 2009	Year Ended December 31, 2008
Revenue	$ 11,182,062	$ 5,213,204
Net loss attributable to common stockholders	$ (29,835,182)	$ (28,274,069)
Net loss per common share	$ (0.32)	$ (0.33)

3. Summary of Significant Accounting Policies

Basis of Presentation

Inovio incurred a net loss from operations of $24.4 million for the year ended December 31, 2009. Inovio had working capital of $25.2 million and an accumulated deficit of $177.2 million as of December 31, 2009. The Company's ability to continue its operations is dependent upon its ability to obtain additional capital in the future and achieve profitable operations. On July 31, 2009, Inovio closed a $30.0 million offering of its shares of common stock and warrants to purchase shares of common stock. The Company received net proceeds from the transaction of approximately $28.4 million, after deducting offering expenses. The Company expects to continue to rely on outside sources of financing to meet its capital needs and the Company may never achieve positive cash flow. These consolidated financial statements do not include any adjustments to the specific amounts and classifications of assets and liabilities, which might be necessary should Inovio be unable to continue in business. Inovio's consolidated financial statements as of and for the year ended December 31, 2009 have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business for the foreseeable future. The Company has evaluated subsequent events after the balance sheet date through the date it issued these financial statements.

Consolidation

The accompanying consolidated financial statements include the accounts of Inovio Biomedical Corporation and its domestic and foreign subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Reorganization

In April 2009, the Company's Board of Directors implemented a reduction in force which impacted our Norwegian operations. In connection with this decision, operations previously performed in Norway ceased as of July 31, 2009, and are continuing in the United States. As of December 31,

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Summary of Significant Accounting Policies (Continued)

2009 both of our wholly-owned Norwegian subsidiaries, Inovio AS and Inovio Tec AS, have been dissolved.

Foreign currencies

The Company translates the financial statements of its non-U.S. operations using the end-of-period exchange rates for assets and liabilities and the average exchange rates for each reporting period for results of operations. Net gains and losses resulting from the translation of foreign financial statements and the effect of exchange rates on intercompany receivables and payables of a long-term investment nature are recorded as a separate component of stockholders' equity under the caption "Accumulated other comprehensive income". These adjustments will affect net income upon the sale or liquidation of the underlying investment.

Use of estimates

The preparation of consolidated financial statements in accordance with U.S. generally accepted accounting principles requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. Inovio bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. On an ongoing basis, Inovio reviews its estimates to ensure that these estimates appropriately reflect changes in the business or as new information becomes available.

Cash and cash equivalents

Equivalents are considered by the Company to be highly liquid investments purchased with original maturities of three months or less and are stated at cost, which approximates market value. At December 31, 2009 cash equivalents included $24.1 million held in money market funds. At December 31, 2008, there were no cash equivalents held in money market funds.

Accounts receivable

Accounts receivable are recorded at invoiced amounts and do not bear interest. Inovio performs ongoing credit evaluations of our customers' financial condition. Credit is extended to customers as deemed necessary and generally does not require collateral. Management believes that the risk of loss is significantly reduced due to the quality and financial position of our customers. No allowance for doubtful accounts was deemed necessary at December 31, 2009 and 2008.

Auction Rate Securities and Auction Rate Securities Rights.

Inovio's short-term investments consist of auction rate securities ("ARS") which are on deposit with a major financial institution and are stated at fair market value. All of Inovio's investments are classified as municipal debt securities as of December 31, 2009 and 2008, and are ARS which have contractual maturities in excess of ten years and reset to par on a monthly basis. See Note 4 for further discussion of the Company's investments

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Summary of Significant Accounting Policies (Continued)

Auction Rate Security Rights ("ARS Rights") consist of the right to sell ARS held by the Company back to the financial institution which sold them to the Company, at par, at its sole discretion, any time during the period from June 30, 2010 through July 2, 2012, and gives the financial institution the right to purchase these ARS or sell them on the Company's behalf at par anytime through July 2, 2012. See Note 4 for further discussion of the Company's ARS Rights.

The Company accounts for Auction Rate Securities ("ARS") under the authoritative guidance for certain investments in debt and equity securities and fair value measurements. The Company accounts for ARS Rights using the fair value option for financial assets and financial liabilities. Investments in ARS and our ARS Rights are recorded at their estimated fair value as there is currently no liquid market which indicates value. The Company has used a discounted cash flow model to determine the estimated fair value of its investment in ARS and our ARS Rights as of December 31, 2009. The assumptions used in preparing the discounted cash flow model include estimates for interest rates, timing and amount of cash flows and expected holding period of the ARS and ARS Rights. Changes in the estimated fair value of the ARS and ARS Rights are reflected in the consolidated statement of operations as "Other income/(expense), net."

Fixed assets

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful life of the assets, generally three to five years. Leasehold improvements are amortized over the shorter of the remaining term of the related leases or the estimated economic useful lives of the improvements. Repairs and maintenance are expensed as incurred.

Long-lived assets

All long-lived assets are reviewed for impairment in value when changes in circumstances dictate, based upon undiscounted future operating cash flows, and appropriate losses are recognized and reflected in current earnings, to the extent the carrying amount of an asset exceeds its estimated fair value determined by the use of appraisals, discounted cash flow analyses or comparable fair values of similar assets.

Valuation of Goodwill and Intangible Assets

Goodwill represents the excess of acquisition cost over the fair value of the net assets of acquired businesses. Intangible assets are amortized over their estimated useful lives ranging from 5 to 18 years. Acquired intangible assets are still being developed for the future economic viability contemplated at the time of acquisition. The Company is concurrently conducting Phase I and pre-clinical trials using the acquired intangibles, and has entered into certain significant licensing agreements for use of these acquired intangibles.

Historically the Company has recorded patents at cost and amortized these costs using the straight-line method over the expected useful lives of the patents or 17 years, whichever is less. Patent cost consists of the consideration paid for patents and related legal costs. Effective June 1, 2009, in connection with the acquisition of VGX, all new patent costs will be expensed as incurred. Patent cost currently capitalized will continue to be amortized over the expected life of the patent. The effect of this change was immaterial to prior periods. License costs are recorded based on the fair value of consideration paid and amortized using the straight-line method over the shorter of the expected useful

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Summary of Significant Accounting Policies (Continued)

life of the underlying patents or the term of the related license agreement. As of December 31, 2009, the Company's intangible assets resulting from the acquisition of VGX and Inovio AS, and additional intangibles including previously capitalized patent costs and license costs, net of accumulated amortization, totaled $13.0 million.

The determination of the value of such intangible assets requires management to make estimates and assumptions that affect the Company's consolidated financial statements. The Company assesses potential impairments to intangible assets when there is evidence that events or changes in circumstances indicate that the carrying amount of an asset may not be recovered. The Company's judgments regarding the existence of impairment indicators and future cash flows related to intangible assets are based on operational performance of our acquired businesses, market conditions and other factors. If impairment is indicated, the Company will reduce the carrying value of the intangible asset to fair value. While current and historical operating and cash flow losses are potential indicators of impairment, the Company believes the future cash flows to be received from its intangible assets will exceed the intangible assets' carrying value, and accordingly, the Company has not recognized any impairment losses through December 31, 2009.

Goodwill and intangible assets with indefinite lives are not amortized but instead are measured for impairment annually, or when events indicate that impairment exists. The Company's accounting policy with respect to reviewing goodwill for impairment is a two step process. The first step of the impairment test compares the fair value of our reporting unit with its carrying value including allocated goodwill. If the carrying value of the Company's reporting unit exceeds its fair value, then the second step of the impairment test is performed to measure the impairment loss, if any. The Company tests goodwill for impairment at the entity level which is considered our reporting unit. The Company's estimate of fair value is determined using both the Discounted Cash Flow method of the Income Approach and the Guideline Public Company method of the Market Approach. The Discounted Cash Flow method estimates future cash flows of our business for a certain discrete period and then discounts them to their present value. The Guideline Public Company method computes value indicators ("multiples") from the operating data of the selected publicly traded guideline companies. After these multiples were evaluated, appropriate value indicators were selected and applied to the operating statistics of the reporting unit to arrive at indications of value. Specifically, the Company relied upon the application of Total Invested Capital based valuation multiples for each guideline company. In applying the Income and Market Approaches, premiums and discounts were determined and applied to estimate the fair values of the reporting unit. To arrive at the indicated value of equity under each approach, the Company then assigned a relative weighting to the resulting values from each approach to determine whether the carrying value of the reporting unit exceeds its fair value, thus requiring step 2 of the impairment test.

The Company conducts the impairment test annually on November 30th for each fiscal year for which goodwill is evaluated for impairment. The Company is also aware of the requirement to evaluate goodwill for impairment at other times should circumstances arise. To date, the Company has concluded that the fair value of the reporting unit significantly exceeded the carrying value and therefore, step 2 of the impairment test has never been performed.

Although there are inherent uncertainties in this assessment process, the estimates and assumptions the Company is using are consistent with its internal planning. If these estimates or their related assumptions change in the future, the Company may be required to record an impairment

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Summary of Significant Accounting Policies (Continued)

charge on all or a portion of our goodwill and intangible assets. Furthermore, the Company cannot predict the occurrence of future impairment-triggering events nor the impact such events might have on its reported asset values. Future events could cause the Company to conclude that impairment indicators exist and that goodwill or other intangible assets associated with its acquired businesses are impaired. Any resulting impairment loss could have an adverse impact on the Company's results of operations. See Note 8 for further discussion of the Company's goodwill and intangible assets.

Income taxes

The Company recognizes deferred tax assets and liabilities for temporary differences between the financial reporting basis and the tax basis of the Company's assets and liabilities along with net operating loss and tax credit carryovers. The Company records a valuation allowance against its deferred tax assets to reduce the net carrying value to an amount that it believes is more likely than not to be realized. When the Company establishes or reduces the valuation allowance against its deferred tax assets, its provision for income taxes will increase or decrease, respectively, in the period such determination is made.

Valuation allowances against the Company's deferred tax assets were $49.7 million and $34.7 million at December 31, 2009 and December 31, 2008, respectively. Changes in the valuation allowances, when they are recognized in the provision for income taxes, are included as a component of the estimated annual effective tax rate.

Revenue recognition

License fees are comprised of initial fees and milestone payments derived from collaborative licensing arrangements. Inovio continues to recognize non-refundable milestone payments upon the achievement of specified milestones, provided the milestone payment is substantive in nature and the achievement of the milestone was not reasonably assured at the inception of the agreement. Inovio defers payments for milestone events which are reasonably assured and recognizes them ratably over the minimum remaining period of the performance obligations. Payments for milestones which are not reasonably assured are treated as the culmination of a separate earnings process and are recognized as revenue when the milestones are achieved.

Inovio has adopted a strategy of co-developing or licensing its gene delivery technology for specific genes or specific medical indications. Accordingly, Inovio has entered into collaborative research and development agreements and has received funding for pre-clinical research and clinical trials. Payments under these agreements, which are non-refundable, are recorded as revenue as the related research expenditures are incurred pursuant to the terms of the agreements and provided collectibility is reasonably assured.

Inovio receives non-refundable grants under available government programs. Inovio records government grants applicable towards current expenditures as revenue when there is reasonable assurance that the Company has complied with all conditions necessary to receive the grants, collectibility is reasonably assured, and the related expenditures have been incurred.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Summary of Significant Accounting Policies (Continued)

Research and development expenses

Since Inovio's inception, virtually all of the Company's activities have consisted of research and development efforts related to developing electroporation technologies. Research and development expenses consist of expenses incurred in performing research and development activities including salaries and benefits, facilities and other overhead expenses, clinical trials, contract services and other outside expenses. Research and development expenses are charged to operations as they are incurred. Inovio reviews and accrues clinical trials expense based on work performed, which relies on estimates of total costs incurred based on patient enrollment, completion of studies and other events.

Net loss per share

Basic net loss per share is computed by dividing the net loss for the year by the weighted average number of common shares outstanding during the year. Diluted loss per share is calculated in accordance with the treasury stock method and reflects the potential dilution that would occur if securities or other contracts to issue common stock were exercised or converted to common stock. Since the effect of the assumed exercise of common stock options and other convertible securities was anti-dilutive for all periods presented, basic and diluted loss per share are the same.

The following table summarizes potential common shares that were excluded from historical basic and diluted net loss per share calculation because of their anti-dilutive effect:

Common stock equivalents	As of December 31, 2009	As of December 31, 2008	As of December 31, 2007
Options to purchase common stock	13,142,039	4,616,714	3,465,462
Warrants to purchase common stock	14,161,360	6,890,448	8,892,000
Convertible preferred stock	38,233	104,409	217,720
Non-vested restricted common stock		138,750	101,250
Total	27,341,632	11,750,321	12,676,432

Leases

Leases are classified as either capital or operating leases. Leases which transfer substantially all of the benefits and risks incidental to the ownership of assets are accounted for as if there was an acquisition of an asset and incurrence of an obligation at the inception of the lease. All other leases are accounted for as operating leases. Inovio's San Diego, CA headquarters and Blue Bell, PA facility leases, which have escalating payments, are both expensed on a straight-line basis over the term of the lease. These leases represent the primary expense and commitment as indicated in Note 12 "Commitments" below. Other leases exist for office machinery, such as copiers, wherein lease expense is recorded as incurred.

Stock-based compensation

The Company recognizes compensation expense for all share-based awards made to employees and directors. Inovio estimates the fair value of stock options granted using the Black-Scholes option pricing model. The Black-Scholes option pricing model was developed for use in estimating the fair

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Summary of Significant Accounting Policies (Continued)

value of traded options, which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility and expected option life. Inovio amortizes the fair value of the awards on a straight-line basis. All options grants are amortized over the requisite service period of the awards. Expected volatility is based on historical volatility. The expected life of options granted is based on historical expected life. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant. The forfeiture rate is based on historical data and Inovio records stock-based compensation expense only for those awards that are expected to vest. The dividend yield is based on the fact that no dividends have been paid on common stock historically, and none are currently expected to be paid.

Assumptions used in the Black-Scholes model are presented below:

	Year Ended December 31,		
	2009	**2008**	**2007**
Risk-free interest rate	1.37% - 1.88%	1.38% - 3.18%	4.07% - 4.67%
Expected volatility	96% - 132%	69% - 91%	93% - 98%
Expected life in years	4	4	6
Dividend yield			

Other Accumulated Comprehensive Loss

Components of comprehensive loss are reported in the consolidated financial statements in the period in which they are recognized. The components of comprehensive loss for us include net loss, unrealized gains and losses on investments and foreign currency translation adjustments. The components of accumulated other comprehensive loss are indicated on the Consolidated Statements of Stockholder's Equity.

Pending Adoption of Recent Accounting Pronouncements

Revenue Recognition In September 2009, the FASB ratified the final consensus reached by the Emerging Issues Task Force ("EITF") that revised the authoritative guidance for revenue arrangements with multiple deliverables. The guidance addresses how to determine whether an arrangement involving multiple deliverables contains more than one unit of accounting and how the arrangement consideration should be allocated among the separate units of accounting. The guidance will be effective for the Company's fiscal year beginning January 1, 2011 with early adoption permitted. The guidance may be applied retrospectively or prospectively for new or materially modified agreements. The Company is currently evaluating early prospective adoption and determining the effects, if any, the adoption of the guidance will have on its consolidated financial statements.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Summary of Significant Accounting Policies (Continued)

Adoption of Recent Accounting Pronouncements

Collaborative Arrangements Related to the Development and Commercialization of Intellectual Property In November 2007, new guidance was issued on accounting for collaborative arrangements related to the development and commercialization of intellectual property. Companies may enter into arrangements with other companies to jointly develop, manufacture, distribute, and market a product. Often the activities associated with these arrangements are conducted by the collaborators without the creation of a separate legal entity (that is, the arrangement is operated as a "virtual joint venture"). The arrangements generally provide that the collaborators will share, based on contractually defined calculations, the profits or losses from the associated activities. Periodically, the collaborators share financial information related to product revenues generated (if any) and costs incurred that may trigger a sharing payment for the combined profits or losses. The consensus requires collaborators in such an arrangement to present the result of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. This guidance is effective for collaborative arrangements in place at the beginning of the annual period beginning after December 15, 2008. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

Business Combinations In December 2007, the Financial Accounting Standards Board (FASB) issued new guidance on business combinations which establishes principles and requirements for how an acquirer in a business combination recognizes and measures the assets acquired and liabilities assumed in a business combination, including the treatment of contingent consideration, pre-acquisition contingencies, transaction costs, in-process research and development and restructuring costs. In addition, under the guidance, changes in an acquired entity's deferred tax assets and uncertain tax positions after the measurement period will impact income tax expense. This statement was effective for the Company with respect to business combination transactions for which the acquisition date is after December 31, 2008. Effective January 1, 2009, the Company implemented this guidance. The Company expects this guidance will have an impact on the consolidated financial statements but the nature and magnitude of the specific effects will depend upon the nature, terms and size of the acquisitions consummated after January 1, 2009.

Noncontrolling Interests In December 2007, the FASB issued new guidance which requires that noncontrolling (minority) interests be reported as a component of equity, that net income attributable to the parent and to the noncontrolling interest be separately identified in the income statement, that changes in a parent's ownership interest while the parent retains its controlling interest be accounted for as equity transactions, and that any retained noncontrolling equity investment upon the deconsolidation of a subsidiary be initially measured at fair value. This statement is effective for fiscal years beginning after December 31, 2008, and shall be applied prospectively. However, the presentation and disclosure requirements are required to be applied retrospectively for all periods presented. The retrospective presentation and disclosure requirements of this statement will be applied to any prior periods presented in financial statements for the fiscal year ending December 31, 2009, and later periods during which we have a consolidated subsidiary with a noncontrolling interest. The adoption of SFAS No. 160 did not have a material impact on the Company's consolidated financial statements.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Summary of Significant Accounting Policies (Continued)

Interim Fair Value Disclosures In April 2009, the FASB issued new guidance which extends the disclosure requirements regarding the fair value of financial instruments to interim financial statements of publicly traded companies. This guidance does not change the accounting treatment for these financial instruments and is effective for interim and annual periods ending after June 15, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

Accounting Standards Codification In June 2009, the FASB issued *Topic 105 Generally Accepted Accounting Principles Amendments Based on Statement of Financial Accounting Standards No. 168 The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles (Accounting Standards Update (ASU) No. 2009-01)*, which updates the FASB Accounting Standards Codification (ASC or Codification) to state that the Codification is to be the single source of authoritative GAAP. All other accounting literature not included in the Codification is to be considered non-authoritative. The updates to the Codification contained in ASU No. 2009-01 were effective for interim and annual periods ending after September 15, 2009. Inovio implemented the guidance set forth by ASU No. 2009-01, recognizing the Codification as the single source of authoritative GAAP, on July 1, 2009. The adoption of this topic did not have a material impact on the Company's consolidated financial statements.

Subsequent Events In February 2010, FASB issued ASU 2010-09 Subsequent Event (Topic 855) Amendments to Certain Recognition and Disclosure Requirements. ASU 2010-09 removes the requirement for an SEC filer to disclose a date in both issued and revised financial statements. Revised financial statements include financial statements revised as a result of either correction of an error or retrospective application of GAAP. All of the amendments in ASU 2010-09 are effective upon issuance of the final ASU, except for the use of the issued date for conduit debt obligors. That amendment is effective for interim or annual periods ending after June 15, 2010. The Company adopted ASU 2010-09 and has evaluated subsequent events after the balance sheet date through the date it issued these financial statements.

4. Marketable Securities and Fair Value Measurements

The guidance regarding fair value measurements establishes a three-tier fair value hierarchy which prioritizes the inputs used in measuring fair value. These tiers include: Level 1, defined as observable inputs such as quoted prices in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. Marketable Securities and Fair Value Measurements (Continued)

The Company's financial assets measured at fair value on a recurring basis at December 31, 2009 are as follows:

	Fair Value Measurements at December 31, 2009		
	Total	Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Using Significant Unobservable Inputs (Level 3)
Short-term investments	$ 10,397,530	$	$ 10,397,530
Auction rate securities rights	3,145,156		3,145,156
Investment in affiliated entity	12,330,802	12,330,802	
Total Assets	$ 25,873,488	$ 12,330,802	$ 13,542,686

Level 1 assets include the Company's investment in VGX Int'l for which the fair value is based on the market value of 8,075,775 common shares on December 31, 2009 listed on the Korean Stock Exchange.

The Company has determined that no items meet the criteria for definition within the Level 2 hierarchy. Level 3 assets held as of December 31, 2009 include municipal debt obligations known as auction rate securities ("ARS"). Due to conditions in the global credit markets, these securities, representing a par value of $13.6 million, are currently not liquid.

In December 2008, the Company, via its wholly-owned subsidiary Genetronics, Inc. ("Genetronics"), which holds the ARS, accepted an offer of ARS Rights from UBS. The ARS Rights permit the Company to require UBS to purchase the Company's ARS at par value at any time during the period of June 30, 2010 through July 2, 2012. If the Company does not exercise its ARS Rights, the ARS will continue to accrue interest as determined by the terms of the ARS. If the ARS Rights are not exercised before July 2, 2012 they will expire and UBS will have no further obligation to buy the Company's ARS. UBS has the discretion to purchase or sell the Company's ARS at any time without prior notice so long as the Company receives a payment at par upon any sale or disposition. UBS will only exercise its discretion to purchase or sell the Company's ARS for the purpose of restructurings, dispositions or other solutions that will provide the Company with par value for its ARS. As a condition to accepting the offer of ARS Rights, the Company released UBS from all claims except claims for consequential damages relating to its marketing and sales of ARS. The Company also agreed not to serve as a class representative or receive benefits under any class action settlement or investor fund.

While the Company continues to earn interest on its ARS at the maximum contractual rates, these investments are not currently trading and therefore do not currently have a readily determinable market value. Accordingly, the estimated fair value of the ARS no longer approximates par value. The Company has used a discounted cash flow model to determine the estimated fair value of its investment in ARS and its ARS Rights as of December 31, 2009. The assumptions used in preparing the discounted cash flow model include estimates for interest rates, timing and amount of cash flows and expected holding period of the ARS and ARS Rights.

As of December 31, 2009, these ARS investment securities and the ARS Rights are reclassified from long-term assets to current assets due to the time frame in which they can be readily convertible to cash.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. Marketable Securities and Fair Value Measurements (Continued)

The Company elected to measure the ARS Rights at fair value to mitigate volatility in reported earnings due to their linkage to the ARS. The ARS Rights will continue to be measured at fair value utilizing Level 3 inputs until the earlier of their maturity or exercise.

The following table presents a summary of changes in fair value of the Company's assets measured on a recurring basis using Level 3 inputs for the year ended December 31, 2009:

	Year Ended December 31, 2009
Balance at January 1, 2009	$ 13,450,965
Change in value of auction rate security	1,228,059
Change in value of auction rate security rights	(1,136,338)
Balance at December 31, 2009	$ 13,542,686
Total gain included in Other income/(expense) in the consolidated statement of operations relating to assets held at December 31, 2009	$ 91,721

5. Line of Credit

On August 26, 2008, the Company received notice from UBS Bank USA ("UBS") that the Company's application had been approved for a $5.0 million uncommitted demand revolving line of credit ("Line of Credit") secured by ARS held by the Company in an account with UBS Financial Services, Inc. (the "Collateral Account"), to provide additional working capital. On December 19, 2008, the Company amended its existing loan agreement with UBS Bank USA, increasing the existing credit line up to $12.1 million, with the ARS pledged as collateral. The Company fully drew down on the line of credit on December 23, 2008. Advances under the Line of Credit bear interest at LIBOR plus 1.00% (the "Spread Over LIBOR"). UBS may change the Spread Over LIBOR at its discretion when the Collateral consisting of ARS may be sold, exchanged or otherwise conveyed by the Company for gross proceeds that are, in the aggregate, not less than the par value of such securities. The loan is treated as a "no net cost loan", as it bears interest at a rate equal to the average rate of interest paid to the Company on the pledged ARS, and the net interest cost to the Company will be zero.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. Major Customers and Concentration of Credit Risk

Customer	2009	% of Total Revenue	2008	% of Total Revenue	2007	% of Total Revenue
Wyeth	$ 4,496,153	49%	$ 846,693	40%	$ 1,118,023	23%
National Institute of Allergy and Infectious Diseases ("NIAID")	2,985,595	33				
PATH Malaria Vaccine Initiative ("MVI")	439,894	5				
U.S Army grant	466,181	5	92,954	4	21,423	
Merck	125,996	1	631,549	30	3,268,884	68
All other	606,292	7	526,436	26	399,399	9
Total Revenue	$ 9,120,111	100%	$ 2,097,632	100%	$ 4,807,729	100%

During the years ended December 31, 2009, 2008 and 2007, the Company recognized revenue from various license fees and milestone payments, collaborative research and development agreements and grants and government contracts. As of December 31, 2009, $211,000 or 81% of our total consolidated accounts receivable balance of $259,000 was attributable to the US Army. As of December 31, 2008, $397,000 or 59%, and $221,000 or 33%, of our total accounts receivable balance of $671,000, was attributable to Merck and Wyeth, respectively.

There is minimal credit risk with these customers based upon collection history, their size and financial condition. Accordingly, the Company does not consider it necessary to record a reserve for uncollectible accounts receivable.

7. Fixed Assets

Fixed assets at December 31, 2009 and 2008 consist of the following:

	Cost	Accumulated depreciation and amortization	Net book value
As of December 31, 2009			
Machinery, equipment and office furniture	$ 1,778,990	$ (1,499,153)	$ 279,837
Leasehold improvements	341,133	(277,513)	63,620
	$ 2,120,123	$ (1,776,666)	$ 343,457
As of December 31, 2008			
Machinery, equipment and office furniture	$ 1,397,829	$ (1,205,536)	$ 192,293
Leasehold improvements	341,133	(179,619)	161,514
	$ 1,738,962	$ (1,385,155)	$ 353,807

Depreciation expense for the years ending December 31, 2009, 2008 and 2007 was $237,000, $195,000 and $186,000, respectively. The Company determined that the carrying value of these long-lived assets was not impaired for the periods presented.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Goodwill and Intangible Assets

The following sets forth the goodwill and intangible assets by major asset class:

		December 31, 2009			December 31, 2008		
	Useful Life (Yrs)	Gross	Accumulated Amortization	Net Book Value	Gross	Accumulated Amortization	Net Book Value
Non-Amortizing:							
Goodwill(a)		$ 10,113,371	$	$ 10,113,371	$ 3,900,713	$	$ 3,900,713
Amortizing:							
Patents	8 - 17	5,802,528	(3,727,747)	2,074,781	5,685,961	(3,255,231)	2,430,730
Licenses	8 - 17	1,198,781	(965,907)	232,874	1,198,781	(947,721)	251,060
CELLECTRA®(b)	5 - 11	8,106,270	(705,573)	7,400,697			
GHRH(b)	11	335,314	(18,482)	316,832			
Other(c)	18	4,050,000	(1,106,250)	2,943,750	4,050,000	(881,250)	3,168,750
Total intangible assets		19,492,893	(6,523,959)	12,968,934	10,934,742	(5,084,202)	5,850,540
Total goodwill and intangible assets		$ 29,606,264	$ (6,523,959)	$ 23,082,305	$ 14,835,455	$ (5,084,202)	$ 9,751,253

(a) Goodwill was recorded from the Inovio AS acquisition in January 2005 and from the acquisition of VGX in June 2009 for $3.9 million and $6.2 million, respectively.

(b) CELLECTRA® and GHRH are developed technologies which were recorded from the acquisition of VGX.

(c) Other intangible assets represent the fair value of acquired contracts and intellectual property from the Inovio AS acquisition.

Aggregate amortization expense on intangible assets was $1,440,000, $798,000 and $832,000 for the years ended December 31, 2009, 2008 and 2007, respectively. Amortization expense related to intangible assets at December 31, 2009 for each of the next five fiscal years and beyond is expected to be incurred as follows:

2010	$ 1,908,631
2011	1,858,955
2012	1,810,608
2013	1,759,976
2014	932,157
Thereafter	4,698,607
	$ 12,968,934

In accordance with the guidance regarding goodwill and other non-amortizing intangible assets, the Company has completed its annual impairment tests and fair value analysis for goodwill and other non-amortizing intangible assets, respectively, held throughout the year. The Company conducts the impairment test annually on November 30th. There were no impairments or impairment indicators present and no loss was recorded during the year ended December 31, 2009.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses at December 31, 2009 and 2008 consist of the following:

	As of December 31, 2009	As of December 31, 2008
Trade accounts payable	$ 1,568,297	$ 377,332
Accrued compensation	1,130,968	372,015
Other accrued expenses	1,490,837	1,017,872
	$ 4,190,102	$ 1,767,219

10. Deferred Revenue

The Company defers revenue recognition of cash receipts from licensing and other agreements and recognizes them ratably over the minimum remaining period of our performance obligations. The combined current and long-term deferred revenue balance of $353,000 as of December 31, 2009 consists primarily of cash receipts from various licensing and other agreements.

11. Stockholders' Equity

Preferred Stock

			Outstanding as of December 31,	
	Authorized	Issued	2009	2008
Series A Preferred Stock, par $0.001	1,000	817		
Series B Preferred Stock, par $0.001	1,000	750		
Series C Preferred Stock, par $0.001	1,091	1,091	26	71
Series D Preferred Stock, par $0.001	1,966,292	1,966,292		

The following is a summary of changes in the number of outstanding shares of our preferred stock for the years ended December 31, 2007, 2008 and 2009:

	Series C	Series D
Shares Outstanding as of January 1, 2007	102	1,027,967
Preferred Shares converted	(31)	(914,656)
Shares Outstanding as of December 31, 2007	71	113,311
Preferred Shares converted		(113,311)
Shares Outstanding as of December 31, 2008	71	
Preferred Shares converted	(45)	
Shares Outstanding as of December 31, 2009	26	

During the year ended December 31, 2009, 45 shares of the Company's Series C preferred stock were converted into 66,176 shares of the Company's common stock.

The shares of the Company's outstanding Series C Preferred Stock have the following pertinent rights and privileges, as set forth in the Company's Amended and Restated Certificate of Incorporation and its Certificates of Designations, Rights and Preferences related to the various series of preferred stock.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Stockholders' Equity (Continued)

Rights on Liquidation

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company (a "liquidation event"), before any distribution of assets of the Company shall be made to or set apart for the holders of common stock, the holders of Series C Preferred Stock, pari passu, are entitled to receive payment of such assets of the Company in an amount equal to $10,000 per share of such series of preferred stock, plus any accumulated and unpaid dividends thereon (whether or not earned or declared).

If the assets of the Company available for distribution to stockholders exceed the aggregate amount of the liquidation preferences payable with respect to all shares of each series of preferred stock then outstanding, then, after the payment of such preferences is made or irrevocably set aside, the holders of the Company's common stock are entitled to receive a pro rata portion of such assets based on the aggregate number of shares of common stock held by each such holder. The holders of the Company's outstanding preferred stock shall participate in such a distribution on a pro-rata basis, computed based on the number of shares of common stock which would be held by such preferred holders if immediately prior to the liquidation event all of the outstanding shares of the preferred stock had been converted into shares of common stock at the then current conversion value applicable to each series.

A Change of Control of the Company (as defined in the Certificates of Designations, Rights and Preferences) is not a liquidation event triggering the preferences described above, and is instead addressed by separate terms in the Series C Certificates of Designations, Rights, and Preferences.

Although the liquidation preferences are in excess of the par value of $0.001 per share of the Company's preferred stock, these preferences are equal to or less than the stated value of such shares based on their original purchase price.

Voting Rights

The holders of all series of the Company's preferred stock outstanding have full voting rights and powers equal to the voting rights and powers of holders of the Company's common stock and are entitled to notice of any stockholders' meeting in accordance with the Company's Bylaws. Holders of the Company's preferred stock are entitled to vote on any matter upon which holders of the Company's common stock have the right to vote, including, without limitation, the right to vote for the election of directors together with the holders of common stock as one class.

Conversion Rights

The Series C Preferred Stock each provide the holder of such shares an optional conversion right and provide a mandatory conversion upon certain triggering events.

Right to Convert The holder of any share or shares of Series C Preferred Stock has the right at any time, at such holder's option, to convert all or any lesser portion of such holder's shares of the Preferred Stock into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing (i) the aggregate Liquidation Preference applicable to the particular series of preferred shares, plus accrued and unpaid dividends thereon by (ii) the applicable Conversion Value (as defined in the relevant series' Certificate of Designations, Rights and Preferences) then in effect for

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Stockholders' Equity (Continued)

such series of preferred shares. The Company is not obligated to issue any fractional shares or scrip representing fractional shares upon such conversion and instead shall pay the holder an amount in cash equal to such fraction multiplied by the current market price per share of the Company's common stock.

Mandatory Conversion The Company has the option upon thirty (30) days prior written notice, to convert all of the outstanding shares of the Series C Preferred Stock into such number of fully paid and non-assessable shares of common stock as is determined by dividing (i) the aggregate Liquidation Preference of the shares of the relevant series of preferred stock to be converted plus accrued and unpaid dividends thereon by (ii) the applicable Conversion Value (as defined in the relevant series' Certificate of Designations, Rights and Preferences) then in effect, if at any time after twelve months following the Original Issue Date of each such series of preferred stock all of the following triggering events occur:

(i) The registration statement covering all of the shares of common stock into which the particular series of preferred stock is convertible is effective (or all of the shares of common stock into which the preferred stock is convertible may be sold without restriction pursuant to Rule 144 under the Securities Act of 1933, as amended);

(ii) the Daily Market Price (as defined in the applicable Certificates of Designations, Rights and Preferences) of the common stock crosses a specified pricing threshold for twenty of the thirty consecutive trading days prior to the date the Company provides notice of conversion to the holders; and

(iii) the average daily trading volume (subject to adjustment for stock dividends, subdivisions and combinations) of the common stock for at least twenty of the thirty consecutive trading days prior to the date the Company provides notice of conversion to the holders exceeds 25,000 shares.

As of December 31, 2009, our outstanding shares of the Series C Preferred Stock were convertible into 38,233 shares of our common stock at a conversion price of $6.80 per share, and the applicable Daily Market Price of the common stock for triggering mandatory conversion equaled $18.00 per share.

Imputed and Declared Dividends on Preferred Stock

The holders of our Series C Preferred Stock were entitled to receive an annual dividend at the rate of 6%, payable quarterly, through May 20, 2007. These dividends were payable in cash unless the closing price of our common shares for the 20 trading days immediately preceding the dividend payment date was equal to or greater than the conversion price of such shares, in which event the Company may have elected to pay the dividends to the holders in common stock. As part of this dividend, the Company paid cash of $23,000 during fiscal 2007 to holders of our Series C Preferred Stock. No dividends were paid to holders of our Series C Preferred Stock during the years ended December 31, 2008 or 2009.

Convertible Subordinated Promissory Notes

On June 1, 2009, the Company consummated the transactions contemplated by the Merger Agreement. VGX had an aggregate of $4,400,000 in principal amount of convertible subordinated promissory notes, and an aggregate of $468,000 in accrued and unpaid interest on such notes, as of

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Stockholders' Equity (Continued)

June 30, 2009. Pursuant to the Merger Agreement the notes were convertible at the selling stockholders' option into our common stock; the notes also automatically converted into the Company's common stock in the event that the Company's common stock traded at or above $2.10 per share for five consecutive trading days. The conversion price of the notes was $1.05 per share. As of August 4, 2009, the Company's common stock had traded at or above $2.10 per share for five consecutive trading days, and the notes were automatically converted into 4,600,681 shares of Inovio's common stock.

Common Stock

In July 2009, the Company entered into a securities purchase agreement with certain institutional investors relating to the sale and issuance of (a) 11,111,110 shares of common stock and (b) warrants to purchase a total of 2,777,776 shares of common stock with an exercise price of $3.50 per share, for an aggregate purchase price of approximately $30 million. The warrants were exercisable beginning six months after issuance and expire six months from the date they are first exercisable. The shares of common stock and warrants were sold in units, consisting of one share of common stock and a warrant to purchase 0.25 of a share of common stock, at a purchase price of $2.70 per unit. The Company received net proceeds from the transaction of approximately $28.4 million, after deducting offering expenses. As of December 31, 2009, none of these warrants have been exercised.

Upon the closing of the Merger in June 2009, an aggregate of 41,492,757 shares of the Company's common stock were issued to the former stockholders of VGX, and an additional 18,794,187 shares of the Company's common stock were reserved for issuance upon exercise of the assumed options and warrants and conversion of the principal of and maximum interest payable on the VGX convertible debt. In August 2009 the VGX convertible debt was automatically converted into 4,600,681 shares of the Company's common stock. VGX warrants assumed were ten-year warrants to purchase an aggregate of 4,923,406 shares of the Company's common stock with an exercise price ranging from $0.26 to $1.28 per share, exercisable at various dates from March 25, 2013 through April 28, 2016. As of December 31, 2009, none of these warrants have been exercised.

In August 2007, the Company entered into an agreement with an outside consulting advisor pursuant to which the Company issued 230,000 registered shares of common stock and registered warrants to purchase 150,000 shares of common stock, as payment of a non-refundable retainer in connection with the engagement of its services. The warrants issued have an exercise price of $3.00 per share, and are exercisable through August 6, 2012. As of December 31, 2009, none of these warrants have been exercised.

In May 2007, the Company completed a registered equity financing, whereby it sold 4,595,094 shares of common stock resulting in gross aggregate cash proceeds of $16.2 million.

In March 2007, the Company entered into an agreement in which it agreed to issue a total of 90,000 restricted shares of common stock in equal quarterly installments in exchange for consulting services. As of December 31, 2009, the Company had issued all 90,000 restricted common shares.

In March 2007, the Company terminated its exclusive royalty-free license to IAPL allowing the Company's subsidiary to use certain of the Company's intellectual property, which had been issued in October 2006 prior to the ordinary share financing described below, in exchange for 6,584,365 ordinary shares of IAPL. Upon termination the Company retained the IAPL ordinary shares received in the license transaction.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Stockholders' Equity (Continued)

In January 2007, the Company exchanged 2,201,644 restricted shares of common stock and warrants to purchase up to 770,573 restricted shares of common stock for 2,201,644 ordinary shares of its Singapore subsidiary Inovio Asia Pte. Ltd. (IAPL), pursuant to the terms of the Securities Purchase and Exchange Agreement under which the ordinary shares were originally issued by IAPL in October 2006 for $5.3 million. The warrants issued have an exercise price of $2.87 per share and are exercisable through October 13, 2011. As of December 31, 2009, none of these warrants have been exercised.

The Company accounts for registered common stock warrants issued in October 2006, August 2007 and July 2009 under the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. The Company classifies registered warrants on the consolidated balance sheet as a current liability which is revalued at each balance sheet date subsequent to the initial issuance. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment, including estimating stock price volatility and expected warrant life. The Company develops its estimates based on historical data. A small change in the estimates used may have a relatively large change in the estimated valuation. The Company uses the Black-Scholes pricing model to value the registered warrants. Changes in the fair market value of the warrants are reflected in the consolidated statement of operations as "Other income/(expense), net."

Warrants

In addition to warrants granted as discussed above, the Company has issued the following additional warrants.

Participants in our October 2006 registered offering with foreign investors received five-year warrants to purchase an aggregate of 1,593,821 shares of our common stock with an exercise price of $2.87 per share, exercisable through October 13, 2011. As of December 31, 2009, none of these warrants have been exercised.

Participants in our December 2005 private placement were issued five-year warrants to purchase an aggregate of 3,462,451 shares of our common stock with an exercise price of $2.93 per share, exercisable through December 30, 2010. As of December 31, 2009, none of these warrants have been exercised.

Participants in our Series C Preferred Stock offering in May 2004 were issued five-year warrants to purchase 561,084 shares of our common stock at an exercise price of $8.80 per share, exercisable through May 10, 2009. The placement agents for the Series C Preferred Stock offering were also issued five-year warrants to purchase 152,519 shares of our common stock at an exercise price of $6.80 per share, exercisable through May 10, 2009. As of December 31, 2009, none of these warrants have been exercised.

On September 15, 2000, the Company entered into an exclusive license agreement with the University of South Florida Research Foundation, Inc. (USF), whereby USF granted us an exclusive, worldwide license to USF's rights in patents and patent applications generally related to needle electrodes ("License Agreement"). Pursuant to the License Agreement, the Company granted USF and its designees warrants to acquire 150,000 common shares for $9.00 per share until September 14, 2010.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Stockholders' Equity (Continued)

Of the total warrants granted, 75,000 vested at the date of grant and the remainder will vest upon the achievement of certain milestones. The 75,000 non-forfeitable vested warrants were valued at $554,000 using the Black-Scholes pricing model and were recorded as other assets with a credit to additional paid-in capital. The remaining 75,000 warrants are forfeitable and will be valued at the fair value on the date of vesting using the Black- Scholes pricing model. As of December 31, 2009, no warrants issued in connection with this licensing agreement had been exercised.

In December 2009, a warrant to purchase 50,000 shares of our common stock which was issued in connection with the leasing of our corporate headquarters, expired.

In July 2008, warrants to purchase 2,001,552 shares of our common stock which were issued in connection with our Series A and B Preferred Stock offerings, expired.

Stock options

The Company has one active stock and cash-based incentive plan, the Amended and Restated 2007 Omnibus Incentive Plan (the "Incentive Plan"), pursuant to which the Company has granted stock options and restricted stock awards to executive officers, directors and employees. The plan was adopted on March 31, 2007, approved by the stockholders on May 4, 2007, approved by the stockholders as amended on May 2, 2008, and approved by the stockholders as amended and restated on August 25, 2009. The Incentive Plan reserves 3,750,000 shares of common stock for issuance as or upon exercise of incentive awards granted and to be granted at future dates. At December 31, 2009, the Company had 426,126 shares of common stock available for future grant under the plan, and 240,000 shares of vested restricted stock and options to purchase 2,913,661 shares of common stock outstanding under the plan. The awards granted and available for future grant under the Incentive Plan generally vest over three years and have a maximum contractual term of ten years. The Incentive Plan terminates by its terms on March 31, 2017.

The Incentive Plan supersedes all of the Company's previous stock option plans, which include the 1997 Stock Option Plan, under which the Company had options to purchase 3,750 shares of common stock outstanding and the Amended 2000 Stock Option Plan, under which the Company had options to purchase 2,313,120 shares of common stock outstanding at December 31, 2009. The terms and conditions of the options outstanding under these plans remain unchanged.

Total compensation cost for our stock plans recognized in the consolidated statement of operations for the years ended December 31, 2009, 2008 and 2007 was $1.8 million, $1.0 million, and $1.6 million, respectively, of which $595,000, $286,000 and $354,000 was included in research and development expenses and $1.2 million, $746,000 and $1.2 million was included in general and administrative expenses, respectively.

At December 31, 2009 and 2008, there was $1.4 million and $752,000 of total unrecognized compensation cost, respectively, related to unvested stock options, which is expected to be recognized over a weighted-average period of 2.5 years and one year, respectively.

The fair value of options granted to non-employees at the measurement dates were estimated using the Black-Scholes pricing model. Total stock-based compensation for options granted to non-employees for the years ended December 31, 2009, 2008 and 2007 was $339,000, $58,000, and $119,000, respectively. As of December 31, 2009 and 2008, 4,159,619 and 1,076,031 options remained outstanding, respectively.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Stockholders' Equity (Continued)

The following table summarizes total stock options outstanding at December 31, 2009:

	Options outstanding			Options exercisable	
Exercise price	Options outstanding	Weighted-average remaining contractual life (in years)	Weighted average exercise price	Options exercisable	Weighted-average exercise price
$0.00 - $1.00	1,796,870	5.6	$ 0.34	1,795,398	$ 0.34
$1.01 - $2.00	9,242,959	7.3	$ 1.36	6,639,342	$ 1.33
$2.01 - $4.00	1,722,961	5.0	$ 2.95	1,697,057	$ 2.96
$4.01 - $6.00	310,499	4.0	$ 4.95	310,499	$ 4.95
$6.01 - $8.00	65,000	3.4	$ 6.22	65,000	$ 6.22
$8.01 - $22.00	3,750	0.1	$ 16.52	3,750	$ 16.52
	13,142,039	6.6	$ 1.54	10,511,046	$ 1.57

At December 31, 2009, the aggregate intrinsic value of options outstanding was $1.5 million, the aggregate intrinsic value of options exercisable was $1.5 million, and the weighted average remaining contractual term of options exercisable was 6.1 years.

At December 31, 2008, the aggregate intrinsic value of options outstanding was $9,000, the aggregate intrinsic value of options exercisable was $2,000, and the weighted average remaining contractual term of options exercisable was 6.3 years.

Stock option activity under our stock option plans was as follows:

	Number of shares	Weighted-average exercise price
Balance, December 31, 2006	2,798,900	$ 3.22
Granted	963,125	3.20
Exercised	(94,563)	2.31
Cancelled	(202,000)	4.57
Balance, December 31, 2007	3,465,462	3.15
Granted	1,474,500	0.86
Exercised	(1,250)	0.87
Cancelled	(321,998)	3.14
Balance, December 31, 2008	4,616,714	2.42
Stock options assumed in merger	9,082,681	1.04
Granted	1,902,000	1.52
Exercised	(1,428,475)	0.57
Cancelled	(1,030,881)	2.58
Balance, December 31, 2009	13,142,039	$ 1.54

The weighted average exercise price was $3.01 for the 742,094 options which expired during the year ended December 31, 2009, $3.56 for the 233,185 options which expired during the year ended December 31, 2008 and $6.36 for the 118,250 options which expired during the year ended December 31, 2007.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Stockholders' Equity (Continued)

The weighted average grant date fair value per share was $1.21 for options granted during the year ended December 31, 2009, $0.46 for options granted during the year ended December 31, 2008 and $2.51 for options granted during the year ended December 31, 2007.

The aggregate intrinsic value of options exercised was $1.6 million during the year ended December 31, 2009, $0 during the year ended December 31, 2008 and $95,000 during the year ended December 31, 2007.

The Company has no nonvested restricted shares as of December 31, 2009. A summary of the activity during the year is as follows:

	Number of shares	Weighted-average grant-date fair value
Nonvested at January 1, 2009	138,750	$ 2.55
Granted		
Vested	(138,750)	2.55
Nonvested at December 31, 2009		$

As of December 31, 2009, there was no unrecognized compensation cost related to nonvested stock-based compensation arrangements.

VGX AH, has adopted a 2007 equity incentive plan for the issuance of options to employees and consultants. There were 145,000 options granted during the year ended December 31, 2009 with a weighted average exercise price of $0.75. At December 31, 2009, there were 1,800,167 options outstanding, 1,070,750 options exercisable and 199,833 options available for future grants under the plan. There were no options exercised or cancelled during the year ending December 31, 2009.

Total compensation cost for the VGX AH stock plan that has been recognized in the consolidated statement of operations for the year ended December 31, 2009 was $85,000, of which $28,000 was included in research and development expenses and $57,000 was included in general and administrative expenses, respectively. At December 31, 2009 there was $100,000 of total unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a weighted-average period of one year.

As of March 9, 2010, our corporate headquarters is located at 450 Sentry Parkway East in Blue Bell, Pennsylvania. Our corporate office in Blue Bell is leased space for 7,050 square feet and expires on April 30, 2010. On May 1, 2010, the office will relocate to 1787 Sentry Park West in Blue Bell, Pennsylvania. This new lease was signed on December 19, 2009 and runs through April 30, 2016. The annual rent for the approximately 6,442 square feet property will be $122,000 for the first year, $126,000 for the second year, $129,000 for the third year, $132,000 for the fourth year, $135,000 for the fifth year and $139,000 for the sixth year. At the end of the lease term, we have the option of renewing this lease for an additional three-year lease term at an annual rate equal to the fair market rental value of the property, as defined in the lease agreement.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. Commitments

The corporate office in San Diego is located at 11494 Sorrento Valley Road in San Diego, California. This lease originally ran through February 28, 2010 and was renewed and amended on July 17, 2009. Beginning on March 1, 2010, the remaining leased space is approximately 11,300 square feet and the lease will run through August 31, 2013. The annual rent based on the new lease terms is $160,000 in the first year, $196,000 in the second year, $223,000 for third year and $122,000 in the fourth year. At the end of the lease term, we have the option of renewing this lease for an additional five-year lease term at an annual rate equal to the fair market rental value of the property, as defined in the lease agreement.

In November 2007, VGX signed an amended facility lease in The Woodlands, TX for offices of our majority owned subsidiary VGX Animal Health, Inc. The leased space is for 13,185 square feet and expires on October 31, 2017. The annual rent for the leased space will be approximately $244,000 for the first year, $247,000 for the second year, $251,000 for the third year, $254,000 for the fourth year, $257,000 for the fifth year, $260,000 for the sixth year, $264,000 for the seventh year, $267,000 for the eighth year, $270,000 for the ninth year, and $274,000 for the tenth year. In June 2008, a sublease agreement was executed between VGX and our related party VGX Int'l, whereby 87.5% of the lease expenses will be reimbursed to VGX monthly through the end of the lease term.

Rent expense was $599,000, $422,000, and $490,000 for the years ended December 31, 2009, 2008 and 2007, respectively. This amount is net of sublease income of $346,000, 103,000 and $38,000, respectively. Future minimum lease payments under non-cancelable operating leases as of December 31, 2009 are as follows:

2010	$	631,433
2011		581,522
2012		607,842
2013		550,918
2014		398,458
Thereafter		949,975
Total	$	3,720,148

In the normal course of business, the Company is a party to a variety of agreements pursuant to which they may be obligated to indemnify the other party. It is not possible to predict the maximum potential amount of future payments under these types of agreements due to the conditional nature of our obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by us under these types of agreements have not had a material effect on our business, consolidated results of operations or financial condition.

13. Investment in Affiliated Entity

The Company's investment in an affiliated entity represents the Company's 19.65% ownership interest in the Korean-based company, VGX International, Inc. ("VGX Int'l"). This investment is measured at fair value on a recurring basis. The fair market value of the Company's interest in VGX Int'l was determined using the closing price of VGX Int'l's shares of common stock as listed on the Korean Stock Exchange as of December 31, 2009.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. Income Taxes

In accordance with the guidance pursuant to accounting for income taxes, a deferred tax asset or liability is 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 these differences reverse. The Company provides a valuation allowance against net deferred tax assets unless, based upon the available evidence, it is more likely than not that the deferred tax asset will be realized.

The components of the (benefit) provision for income taxes are presented in the following table:

	As of December 31, 2009	As of December 31, 2008	As of December 31, 2007
Current:			
Federal	$ (30,000)	$	$
State			
Foreign			
	$ (30,000)	$	$
Deferred:			
Federal	$	$	$
State			
Foreign	(887,000)	(63,000)	327,000
	(917,000)	(63,000)	$ 327,000

The reconciliation of income taxes attributable to operations computed at the statutory tax rates to income tax expense (recovery), using a 35% statutory tax rate, is:

	Year ended December 31, 2009	Year ended December 31, 2008	Year ended December 31, 2007
Income (benefit) taxes at statutory rates	$ (8,859,000)	$ (4,538,000)	$ (3,786,000)
State income tax, net of federal benefit	(1,287,000)	(668,000)	(742,000)
Change in valuation allowance	6,134,000	5,328,000	(6,445,000)
IRC Section 382 limitation			12,749,000
Fair value warrant	450,000	50,000	(1,192,000)
Expiring tax attributes	881,000		
Unrecognized tax positions	585,000		
Other	1,179,000	(235,000)	(257,000)
	$ (917,000)	$ (63,000)	$ 327,000

The income tax expense (recovery) has been recorded as a reduction to general and administrative expenses, as its effect is immaterial.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. Income Taxes (Continued)

Significant components of the Company's deferred tax assets and liabilities as of December 31, 2009 and 2008 are shown below:

	As of December 31, 2009	As of December 31, 2008
Deferred tax assets:		
Capitalized research expense	$ 5,402,000	$ 3,566,000
Net operating loss carry forwards	42,405,000	24,891,000
Research and development and other tax credits	2,518,000	2,152,000
Other	3,056,000	4,049,000
	53,381,000	34,658,000
Valuation allowance	(49,260,000)	(34,658,000)
Total deferred tax assets	4,121,000	
Deferred tax liabilities:		
Acquired intangibles	$ (2,899,000)	
Investment in affiliated entity	(1,222,000)	(887,000)
Net deferred tax liabilities	0	(887,000)

We have established a valuation allowance for all deferred tax assets including those for net operating loss ("NOL") and tax credit carryforwards. Such a valuation allowance is recorded when it is more likely than not that the deferred tax assets will not be realized.

The net deferred tax liability of $887,000 as of December 31, 2008, resulted from the acquisition of Inovio AS and reflects the net effect of temporary differences between the carrying amount of intangible assets for financial statement reporting purposes and the amount used for income tax purposes. The liability will be amortized over the life of the underlying intangible, which is 18 years and will be accounted for as an income tax recovery. During the fourth quarter of 2009, this intangible asset was transferred to the Company upon liquidation of the two Norwegian subsidiaries. For 2010 and beyond, the deferred tax liability from this intangible is applied to reduce the net deferred tax asset before valuation allowance as it is considered a source of taxable income in the Unites States.

As of December 31, 2009, the Company had federal, California and Pennsylvania tax net operating loss carry forwards of approximately $106.2 million, $67.5 million and $33.9 million, respectively. The federal loss carry forwards will begin to expire in 2019 unless previously utilized. The California loss carry forwards will begin to expire in 2013 and the Pennsylvania loss carry forwards will begin to expire in 2021.

In addition, we had federal and state research tax credit carryforwards of approximately $2.6 million and $1.6 million, respectively. The federal tax credit carryforwards will begin to expire in 2022. The California research tax credits do not expire.

Utilization of the NOL and tax credit carryforwards will be subject to a substantial annual limitation under Section 382 of the Internal Revenue Code of 1986, and similar state provisions due to ownership change limitations that have occurred previously or that could occur in the future. These ownership changes will limit the amount of NOL and tax credit carryforwards and other deferred tax

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. Income Taxes (Continued)

assets that can be utilized to offset future taxable income and tax, respectively. In general, an ownership change, as defined by Section 382, results from transactions increasing ownership of certain stockholders or public groups in the stock of the corporation by more than 50 percentage points over a three-year period. An analysis was performed of ownership activity through December 31, 2008 which indicated that multiple ownership changes have occurred in previous years which created annual limitations on the Company's ability to utilize NOL and tax credit carryovers. Such limitations will result in approximately $12.7 million of tax benefits related to NOL and tax credit carryforwards that will expire unused. Accordingly, the related NOL and R&D credit carryforwards have been removed from deferred tax assets accompanied by a corresponding reduction of the valuation allowance. Due to the existence of the valuation allowance, limitations created by future ownership changes, if any, related to our operations in the U.S. will not impact our effective tax rate. The Company is in the process of updating the study for the Company and VGX, both of which likely experienced ownership changes under Section 382 as a result of the merger. Therefore, NOLs and R&D credit carryforwards will be subject to annual limitations. Upon completion of the study, deferred tax assets relating to NOL and R&D credit carryforwards for the Company and VGX may need to be removed from the table with a corresponding reduction of the valuation allowance. Any additional ownership changes, may further limit the ability to use the net operating losses and credits carryovers.

The following table summarizes the activity related to our unrecognized tax benefits:

	2009	2008	2007
Balance at beginning of the year			
Increases related to current year tax positions			
Increases related to prior year tax positions	$ 629,000		
Expiration of the statue of limitations for the assessment of taxes			
Other			
Balance at end of the year	$ 629,000		

The amount of unrecognized tax benefit that, if recognized and realized, that would affect the effective tax rate is $585,000 as of December 31, 2009. The Company has not recorded any interest and penalties on the unrecognized tax positions as the Company has continued to generate net operating losses after accounting for the unrecognized tax benefits. The Company does not anticipate that the total amount of unrecognized tax benefits will significantly increase or decrease within 12 months of the reporting date.

The Company and its subsidiaries are subject to U.S. federal income tax as well as income tax in multiple state and foreign jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal income tax examinations for years before 2006; state and local income tax examinations before 2005; and foreign income tax examinations before 2006. However, to the extent allowed by law, the tax authorities may have the right to examine prior periods where net operating losses were generated and carried forward, and make adjustments up to the amount of the net operating loss carryforward amount. The Company is not currently under Internal Revenue Service ("IRS"), state or local tax examination.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

15. 401(k) Plan

In 1995, the Company's U.S. subsidiary adopted a 401(k) Profit Sharing Plan (the "Plan") covering substantially all of its employees. The defined contribution plan allows the employees to contribute a percentage of their compensation each year. The Company currently matches 50% of its employees' contributions, up to 6% of their annual compensation. The Company's contributions are recorded as expense in the accompanying consolidated statements of operations and totaled $41,000, $58,000 and $55,000 for the years ended December 31, 2009, 2008 and 2007, respectively.

16. Segment Information

In the fourth quarter of 2009, the Company's wholly-owned Norwegian subsidiaries, Inovio AS and Inovio Tec AS were dissolved and operations transferred to the United States. Prior to the dissolution of these subsidiaries, the Company operated in one business segment in the United States and Europe. Revenues are attributable to the geographical area based on the location of the customer. During the year ending December 31, 2009, revenues in Europe and the United States totaled $57,000 and $9.1 million, respectively. During the year ending December 31, 2008 revenues in Europe and the United States totaled $285,000 and $1.8 million, respectively, and during the year ending December 31, 2007 revenues in Europe and the United States totaled $267,000 and $4.5 million, respectively. As of December 31, 2009 all long-lived assets totaling $23.1 million exist within the United States. Prior to the dissolution of our Norwegian operations, long-lived assets within the United States consisted primarily of patents and other intellectual property and outside the United States consisted primarily of goodwill and intangible assets. As of December 31, 2008, long-lived assets in Europe and the United States totaled $7.1 million and $2.7 million, respectively, and as of December 31, 2007, long-lived assets in Europe and the United States totaled $7.7 million and $2.8 million, respectively.

17. Related Party Transactions

The Company conducts transactions with its affiliated entity, VGX Int'l (See Note 13).

For the year ended December 31, 2009, the Company recognized revenue from VGX Int'l of $59,000 which consisted of milestone fees, device lease fees and consulting and other fees. Operating expenses related to VGX Int'l for the year ended December 31, 2009 include $1.7 million related to manufacturing and engineering services as well as $56,000 for regulatory and technical support and other consulting services received. At December 31, 2009 we had an accounts receivable balance of $59,000 from VGX Int'l and its subsidiaries.

For the year ended December 31, 2009, the Company received sublease income from VGX Int'l of $126,000 for the facility in The Woodlands, TX, which offset the Company's lease expense.

Dr. J. Joseph Kim, our CEO, Young Park, the Company's corporate secretary and Bryan Kim, the Company's vice president of Asian operations, currently constitute three of the four members of VGX Int'l's board of directors and receive customary compensation from VGX Int'l for their service in such capacity. Dr. Kim also served as chief executive officer of VGX Int'l prior to our acquisition of VGX Pharmaceuticals, Inc. in June 2009. Bryan Kim currently serves as the president and chief executive officer of VGX Int'l.

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. Supplemental Disclosures of Cash Flow Information

	Year ended December 31, 2009	Year ended December 31, 2008	Year ended December 31, 2007
Supplemental schedule of financing activities:			
Interest paid	$ 166,178	$ 31,170	$
Supplemental schedule of non-cash activities:			
Issuance of common stock and stock options and warrants assumed in connection with acquisition of VGX Pharmaceuticals, Inc.	$ 31,293,226	$	$
Conversion of long-term debt and accrued interest to common stock.	$ 4,830,715	$	$
Conversions of preferred stock to common stock	$ 66	$ 113	$ 961
Leasehold improvements financed by landlord	$	$ 35,211	$ 92,486
Conversion of minority interest into common stock	$	$	$ 5,349,995
Cashless exercise of warrants	$	$	$ 38

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

19. Quarterly Financial Information (Unaudited)

The following unaudited quarterly financial information reflects all normal recurring adjustments, which are, in the opinion of management, necessary for a fair statement of the results of the interim periods. The four quarters for per share figures may not add for the year because of the different number of shares outstanding during the year. The results of operations for any period are not necessarily indicative of the results to be expected for any future period. Summarized unaudited quarterly data for the years ended December 31, 2009 and 2008, are as follows:

	Quarter Ended December 31, 2009	Quarter Ended September 30, 2009	Quarter Ended June 30, 2009	Quarter Ended March 31, 2009
Consolidated Statement of Operations:				
Revenue:				
License fee and milestone payments	$ 297,598	$ 2,143,239	$ 2,275,374	$ 213,098
Revenue under collaborative research and development arrangements	(63,664)	32,885	102,317	54,458
Grants and miscellaneous revenue	2,378,677	1,470,337	113,898	101,894
Total revenue	2,612,611	3,646,461	2,491,589	369,450
Operating Expenses:				
Research and development	3,851,400	3,412,130	1,181,194	963,733
General and administrative	2,571,792	3,830,703	4,300,772	2,966,142
Total operating expenses	6,423,192	7,242,833	5,481,966	3,929,875
Loss from operations	(3,810,581)	(3,596,372)	(2,990,377)	(3,560,425)
Interest income/(expense), net	25,196	(26,620)	(29,931)	33,648
Other income/(expense), net	1,849,722	(2,903,174)	(267,678)	62,282
(Loss)/gain from investment in affiliated entity	(5,440,217)	3,564,283	(7,368,680)	
Net loss	$ (7,375,880)	(2,961,883)	(10,656,666)	(3,464,495)
Net loss attributable to non-controlling interest	30,012	13,697	3,730	
Net loss attributable to Inovio Biomedical Corporation	$ (7,345,868)	$ (2,948,186)	$ (10,652,936)	$ (3,464,495)
Loss per common share basic and diluted:				
Net loss attributable to Inovio Biomedical Corporation stockholders	$ (0.07)	$ (0.03)	$ (0.19)	$ (0.08)
Weighted average number of common shares basic and diluted	102,417,873	93,909,945	57,303,620	44,035,480

Table of Contents

INOVIO BIOMEDICAL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

19. Quarterly Financial Information (Unaudited) (Continued)

	Quarter Ended December 31, 2008	Quarter Ended September 30, 2008	Quarter Ended June 30, 2008	Quarter Ended March 31, 2008
Consolidated Statement of Operations:				
Revenue:				
License fee and milestone payments	$ 179,823	$ 214,825	$ 203,924	$ 192,829
Revenue under collaborative research and development arrangements	(81,240)	239,912	459,110	460,185
Grants and miscellaneous revenue	228,264			
Total revenue	326,847	454,737	663,034	653,014
Operating Expenses:				
Research and development	1,199,455	1,274,387	1,679,264	1,597,388
General and administrative	2,588,989	1,928,928	3,086,180	2,401,505
Total operating expenses	3,788,444	3,203,315	4,765,444	3,998,893
Loss from operations	(3,461,597)	(2,748,578)	(4,102,410)	(3,345,879)
Interest income, net	56,708	97,008	191,371	298,749
Other income, net	(170,844)	307,162	(112,733)	25,421
Net loss attributable to common stockholders	$ (3,575,733)	$ (2,344,408)	(4,023,772)	(3,021,709)
Amounts per common share basic and diluted:				
Net loss attributable to common stockholders	$ (0.08)	$ (0.05)	$ (0.09)	$ (0.07)
Weighted average number of common shares basic and diluted	44,011,800	43,929,654	43,874,739	43,837,739

20. Subsequent Events

On March 24, 2010, we entered into a Collaboration and License Agreement (the "Agreement") with VGX Int'l. Under the Agreement, Inovio granted VGX Int'l an exclusive license to Inovio's SynCon™ universal influenza vaccine delivered with electroporation to be developed in certain countries in Asia (the "Product").

As consideration for the license granted to VGX Int'l, the Company will receive a research and development initiation fee, as well as research support, annual license maintenance fees and royalties on net Product sales. In addition, contingent upon achievement of clinical and regulatory milestones, the Company will receive development payments over the term of the Agreement. The Agreement also provides the Company with exclusive rights to supply devices for clinical and commercial purposes (including single use components) to VGX Int'l for use in the Product.

The term of the Agreement commenced upon execution and will extend on a country by country basis until the last to expire of all Royalty Periods for the territory (as such term is defined in the Agreement) for any Product in that country, unless the Agreement is terminated earlier in accordance with its provisions as a result of breach, by mutual agreement, or by VGX Int'l's right to terminate without cause upon prior written notice.